ABSTRACTS

Copyrights© http://conf.uni-ruse.bg

OCTOBER RESEARCH CONFERENCE IN SILISTRA

FRI-110-1-LLIE(S)

FRI-110-1-LLIE(S)-01

DOXOLOGIES IN THE EUANGELIUM DIDACTICUM BY CONSTANTINE OF PRESLAV

Mariya Tomova-Mihneva, PhD Student
Department of Philological and Natural Sciences, Silistra Branch
University of Ruse "Angel Kanchev"
Phone: 086-821 521
E-mail: tomova_maria@abv.bg

Assoc. Prof. Todorka Georgieva, DSc
Department of Technical and Natural Sciences, Silistra Branch,
"Angel Kanchev" University of Ruse
Phone: 086-821 521
E-mail: tgeorgieva@uni-ruse.bg

Abstract: *The focus of the report is on the construction and functions of specific to biblical and Christian books introducing or finishing doxologies - prayers in which the glory of God is given. They have all the features of a one-dimensional microtext, whose main function is text-based. The introductory and final doxologies in Euangelium didacticum by Constantine of Preslav are studied, examining the specifics of the microcomposition's schemes used for the arrangement of the constituent building blocks.*

Keywords: *Biblical and Christian books, doxology, "Euangelium didacticum", Constantine of Preslav*

JEL Code: *I29*

REFERENCES

Bibliya (2011). Bibliya, sirech knigite na Sveshtenoto Pisanie na Vethiya i Noviya zavet.Izdanie na Sv. Sinod na Balgarskata carkva. Sofiya (***Оригинално заглавие:*** *Библия, 2011. Библия, сиреч книгите на Свещеното писание на Ветхия и Новия завет. Издание на Св. Синод на Българската църква. София*).

Velikoe (2000). Velikoe slavoslovie. – In: Pravoslavnaya enciklopediya pod redakciej Patriarha Moskovskogo i vseya Rusi Aleksiya II. (***Оригинално заглавие:*** *Великое славословие. 2008. – В: Православная энциклопедия под редакцией Патриарха Московского и всея Руси Алексия II. URL:* http://www.pravenc.ru/text/150133.html. *Accessed on 10.10.2018*).

Anafora (2018). Anafora (liturgiya). (***Оригинално заглавие:*** *Анафора* (*литургия*). *2018.*

https://ru.wikipedia.org/wiki/%D0%90%D0%BD%D0%B0%D1%84%D0%BE%D1%80%D0%B0_(%D0%BB%D0%B8%D1%82%D1%83%D1%80%D0%B3%D0%B8%D1%8F). (Accessed on 10.10.2018).

FRI-110-1-LLIE(S)-02

THE LANGUAGE USE IN A SCRIPT FOR IVAN N. MOMCHILOV FROM 1869

Ivo Bratanov, 1st class teacher, PhD
"Hristo Botev" Secondary School – Ruse
Tel.: +35982-82-90-32
E-mail: ibratanov@abv.bg

Abstract: *The report exploits the language use in a Bulgarian Revival script, named "Contract" from1869. This script is signed by Ivan M. Mollov, Stoyan Marinov and R. M. Radoslavov. It is restricted to a single page and contains 20 rows.The report focuses on the graphic, spelling, phonetic and grammatical peculiarities of the text. The characteristic features of the language in this text are compared to the set of linguistic norms and rules defined by Ivan Momchilov's "Grammar of The New Bulgarian Language"*(*Ruse, 1868*) *which is the primary codification document of the Tarnovo Literary language school.*

Keywords: *history of the contemporary Bulgarian literary language; slavic literary language; Ivan N. Momchilov; graphic, spelling, phonetic and morphological peculiarities; language-spelling model; dialect; literary tradition.*

REFERENCES

Andreychin, L. (1977). Iz istoriyata na nasheto ezikovo stroitelstvo. Sofia: Darzhavno izdatelstvo "Narodna prosveta" (***Оригинално заглавие:*** *Андрейчин, Л. 1977. Из историята на нашето езиково строителство. София: Държавно издателство „Народна просвета"*).

Bratanov, I. (2017). Ezikat na izdaniyata na Ivan N. Momchilov vav Vilaetskata pechatnitsa v Ruse. In: *Brod*, 14, 47-62 (***Оригинално заглавие:*** *Братанов, И. 2017. Езикът на изданията на Иван Н. Момчилов във Вилаетската печатница в Русе. В: Брод, бр. 14, 47-62*).

Bratanov, I. (2018). Ezikat na "Pismennitsa na slavyanskiya yazik" na Ivan N. Momchilov (Grafichni i pravopisni osobenosti). In: Arnaudov sbornik (Dokladi i saobshteniya). T. X. Ruse: Izdatelstvo "Leni-An', 373-383 (***Оригинално заглавие:*** *Братанов, И. 2018. Езикът на „ПИСМЕННИЦА НА СЛАВЯНСКІЙ-А ЯЗЫКЪ" на Иван Н. Момчилов* (*Графични и правописни особености*). *В: Арнаудов сборник* (*Доклади и съобщения*). *Т. Х. Русе: Издателство „Лени – Ан", 373-383*).

Istoriya na novobalgarskiya knizhoven ezik (1989). Georgieva, El., Zherev, St. & Stankov, V. (reds.). Sofia: Izdatelstvo na BAN (***Оригинално заглавие:*** *История на новобългарския книжовен език 1989. Отговорни редактори: Елена Георгиева, Стоян Жерев, Валентин Станков. София: Издателство на БАН*).

Ivanova, D. (2017). Istoriya na novobalgarskiya knizhoven ezik. Plovdiv: Universitetsko izdatelstvo "Paisij Hilendarski" (***Оригинално заглавие:*** *Иванова, Д. 2017. История на новобългарския книжовен език. Пловдив: Университетско издателство „Паисий Хилендарски"*).

Keremidchiev, G. (s.a.). Borba za knizhoven ezik i pravopis. Sofia: Izdatelstvo "Hemus" (***Оригинално заглавие:*** *Борба за книжовенъ езикъ и правописъ. Избра, подреди и обясни Г. Керемидчиевъ. София: „Хемусъ" А. Д., s.a.*).

Vachkova, K. (2001). Dve pisma na Ivan Momchilov s ogled istoriyata na novobalgarskiya knizhoven ezik. In: *Izsledvaniya po balgarski ezik.* Veliko Tarnovo: Universitetsko izdatelstvo "Sv. sv. Kiril i Metodij", 299-310 (***Оригинално заглавие:*** *Вачкова, К. 2001. Две писма на Иван Момчилов с оглед историята на новобългарския книжовен език. В: Изследвания по български език. Велико Търново: Университетско издателство „Св. св. Кирил и Методий", 299-310*).

Zherev, St., Stankov, V. & Tsoynska, R. (1989). Istoriya na balgarskiya knizhoven ezik (Uchebnik za 11. i 12. klas na Natsionalnoto sredno uchilishte po kultura). Sofia: Darzhavno

 Copyrights© http://conf.uni-ruse.bg

izdatelstvo "Narodna prosveta" (***Оригинално заглавие:*** *Жерев, Ст., Станков, В., Цойнска, Р. 1989. История на българския книжовен език* (*Учебник за 11. и 12. клас на Националното средно училище по култура*). *София: Държавно издателство „Народна просвета"*).

FRI-110-1-LLIE(S)-03

SOME PROBLEMS OF EDUCATIONAL ADAPTATION OF FOREIGN STUDENTS IN BULGARIA

Assistant Professor Ivelina Angelova – PhD Student
Department of Medical Psychology and Foreign Languages
Trakia University, Faculty of Medicine, Stara Zagora, Bulgaria
Tel.: +359884754878
E-mail: ivon@gyuvetch.bg

Abstract: *The paper reviews some problems of adaptation of foreign students to the education system at the Higher education institutions, in particular the English speaking students at the Medical University of Bulgaria. More and more students choose to receive their higher education in Bulgaria. The attitude of foreign students towards adapting to the new socio-cultural environment is a complex and differentiated process. The realization and development of personal potential, the relative adaptation to the new socio-cultural environment in many respondents is achieved above all at the expense of changes in stereotypes and behavior patterns, but there is often an internal alienation from the social environment, from the new recipients culture, they must fit in order to live and learn fully. The systematic study of the peculiarities of realization and development of the personal potential, as well as of the socio-linguistic adaptation of foreign students to life and learning in Bulgaria could help optimize the Bulgarian higher education system, which in turn will support the international prestige of Bulgaria, confirming the high level of its science, culture and education. Moreover, the analysis of different aspects of the educational adaptation of foreign students and the practical recommendations made on this basis will allow to increase the competitiveness of Bulgarian universities in the field of international education services.*

Keywords: *Foreign Students, Adaptation, Foreign language learning*

REFERENCES

Ibragimova, D. M. (2013). Formirovanie socialnoy adaptacii inostrannaih studentov v Rosiiskom vuze / Mejdukulturnaya kommunikaciya v sovremennom mire: materialai II mejvuz. Nauch.-prakt. Konf. Inostrannaih studentov/ pod red. YU.A. Shuraiginoy. – Penza: Izd-vo PGU, s. 52-56 (***Оригинално заглавие:*** *Ибрагимова, Д. М.* (*2013*) *Формирование социальной адаптации иностранных студентов в Российском вузе /Межкультурная коммуникация в современном мире: материалы II межвуз. науч-практ. конф. иностранных студентов/ под ред. Ю.А. Шурыгиной. – Пенза: Изд-во ПГУ, с. 52-56*).

Italiazova, A., Eremina, N. K. (2013). Problema adaptacii inostranaih studentov v rosiiskih vuzah (2 mejvuzovskaya nauchno – prakticheskaya konferenciya inostranaih studentov), s. 56-58 (***Оригинално заглавие:*** *Италиазова, А., Еремина, Н. К. (2013) Проблема адаптации иностранных студентов в российских вузах (2 межвузовская научно – практическая конференция иностранных студентов) с. 56-58*).

Kulikova, O.V. (2007). Problema adaptacii inostranaih studentov v procese obucheniya v rosiiskom vuze./ O. V. Kulikova, N. V. Poddubnay // Jurnal nauchnaih publikaciy aspirantov I doktorov .-№3.) (***Оригинално заглавие:*** *Куликова, О. В.* (*2007*) *Проблема адаптации иностранных студентов в процессе обучения в российском вузе./ О.В. Куликова, Н.В.Поддубный //Журнал научных публикаций аспирантов и докторов -№3*).

Pozdnyakov, I. A. (2010). Problemai adaptacii inostrannaih studentov v Rosii v kontekste

pedagogicheskogo soprovojdeniya, Nauchnaya statya// Izvestiya Rosiyskogo gosudarstvennogo pedagogicheskogo universiteta im A.I. Gercena, №121 (***Оригинално заглавие:*** *Поздняков, И.А. Проблемы адаптации иностранных студентов в России в контексте педагогического сопровождения* (*2010*) *[Научная статья]//Известия Российского государственного педагогического университета им. А.И. Герцена, №121*).

Viktorovich, K. A. (2008). Socialno-psihologicheskaya adaptasiya inostranaih studentov k visshei shkole Rosii .-19.00.05.- Moskva. (***Оригинално заглавие:*** *Викторович, К. А.* (*2008*) *Социально- психологическая адаптация иностранных студентов к высшей школе России.-19.00.05.-Москва*).

Vaiyavlenie problem inostrannaih studentov v processe ih adaptacii v obrazovatelnoy srede rosiyskogo vuza. (2015). (***Оригинално заглавие:*** *Выявление проблем иностранных студентов в процессе их адаптации в образовательной среде российского вуза.* (*2015*))

URL: http://refleader.ru/jgeujgbewyfsaty.html (Accessed on 07.08.2018).

FRI-110-1-LLIE(S)-04

CONCEPTS AND REALITY IN THE NOVEL „CONVICTED SOULS" IMAGERY CODE FUNCTION

Assoc. Prof. Rumyana Lebedova, PhD
Department of Philological and Natural Sciences, Silistra Branch,
"Angel Kanchev" University of Ruse
Phone: 0887632741
E-mail: rlebedova@uni-ruse.bg

Abstract: *In D. Dimov's novel „Convicted Souls", the imagery code mediates between the characters and the world - discreetly, but very persistently, it clarifies what implies their worldview and sensitivity. The imagery code provokes the overthrow of the masks, clarifies the essence of human nature, stimulates the understanding of the characters, and illuminates the grounds for a certain type of reaction and assessment.The boundary between real and fictional is outlined through it, and it is from the inability to distinguish it,why the tragism most often arises. The imagery code is active when the psychological plan is compacted in the narrative. It sets patterns of perception by being committed to works by Velasquez, El Greco and Goya, and determines the existence of syncretism in the novel world.The result of the interconnection of literature and art in the novel „Convicted souls" is expressed in various aspects, both in the presence of common images, themes, conceptual suggestions and in the peculiarities of style and poetics, as well as through references to the life of artists and their views on art. The imagery code outlines meaningful and emotional trajectories, and illustrates personal and national psychology features that explain the tragedy of the characters in the border space between their ideas and reality.*

Keywords: *Dialogue, Literature, Fine Art, Imagery Psychology, Tragedy, Cultural Styles*

JEL Code: I29

REFERENCES

Igov, Sv. (1999) Romanat kato kartinna galeriya. Literaturen forum. 33. (***Оригинално заглавие:*** *Игов, Св.,1999. Романът като картинна галерия.-В: Литературен форум, бр. 33.*)

Lorka, F**.** (1973) Duende – teoriya I sashtnos: Izbrani tvorbi. Sofia: Nauka I kultura, 449. (***Оригинално заглавие:*** *Лорка, Ф.***,** *1973. Дуенде-теория и същност-В: Избрани творби. София: Издателство «Наука и култура», 449.*)

Unamuno, M. (1983) Tragichnoto chuvstvo za givota u horata i u narodite: Eseistika. Sofia: Nauka I kultura, 645. (***Оригинално заглавие:*** *Унамуно, М., 1983. Трагичното чувство за живота у хората и народите - В: Есеистика. София: «Наука и култура», 645.*)

FRI-110-1-LLIE(S)-05

THE GOLDEN RATIO. WORD- MUSIC- LIGHT

Snejana Bunardjieva
Freelance journalist, consultant, Sofia, Bulgaria
Tel.: +359889 93 72 78
E-mail: sbunardjieva@mail.bg

Abstract: *The word is also vibration. As in music, every sound of the spoken word, apart from the meaning, carries also specific vibrations, the frequencies of which can be beneficial or destructive for the human body. The history of Bulgarian ethnography and folk traditions also shows the exceptional significance of word and music sound: from ancient times folk healers were treating ill people with special sounds (word and singing spells); or it was known that some spells can make you ill.*

And what is the significance of light? Light is the ultimate energy that affects every living being – which has been used in many schools of healing with colours and, as well as with the invisible form of that higher energy.

And where in this configuration is the Golden Ratio? Everywhere – in the proportions of the Leonardo Da Vinci's human body, in the structure of musical pieces, in poetry and prose, in paintings and architecture. In mathematics, two quantities are in the golden ratio if their ratio is the same as the ratio of their sum to the larger of the two quantities. And that is how mathematics and physics explain every creative activity of the human mind – science and art.

But before everything else, the Golden Ratio symbol of beauty, harmony and perfection, is everywhere in nature, as well as in humankind and its creations. The connection between all kinds of energy in the universe, on Earth and in humankind is ever present and perpetual. And is life-creating or life-destroying, depending on which way it manifests itself.

This is why many physicians and healers of all times have been taking in consideration the different energies- invisible, or transformed into visible matter, in the construction of our bodies; as well considering the Golden Ratio proportions. And many of them are using the vibration energy of music, words and poetry, colours, paintings and architecture, different sources of light.

Let's take a moment for each of us to think which energies could be most beneficial to you.

Keywords: *The Golden Ratio, Energies of Speech, the Arts, and the Light*

JEL Code: *I29*

REFERENCES

Arkelyan, Gr. (2014). Matematika i istoriya zolotogo secheniya. Moskva, Logos (***Оригинално заглавие:*** *Грант Аракелян. 2014. Математика и история золотого сечения. Москва: Логос*).

Bunardjieva, S. (2012). Trepetno lekuvane s dumi. Moskva, IPO „U Nikitskih vorot" (***Оригинално заглавие:*** *Бунарджиева, Сн. 2012. Трепетно лекуване с думи, двуезична – Москва, ИПО „У Никитских ворот"*).

Goldman, D. (2003). Celitel'nye zvuki. Moskva: Izdatel'skiy dom "Sofiya" (***Оригинално заглавие:*** *Голдмен Д. 2003. Целительные звуки. Пер. с англ. Издательский дом "София"*).

Bunardjieva, S. (2015). Cvete v chiniya. Moskva, Pechatnica „MDMprint" (***Оригинално заглавие:*** *Бунарджиева Сн. 2015. Цвете в чиния. Москва, Печатница „MDMprint"*).

Danov, P. (2008) Muzika. Sastavitel: Svilen Chorbadjiev. Sofiya, Izdatelstvo "Astrala" (***Оригинално заглавие:*** *Дънов П. 2008. Музика. Съставител: Свилен Чорбаджиев. София, Издателство „Астрала"*).

Drapkin, B. (2015). Materinskaya lyubov'. Moskva, Izdatel'skiy dom "Narkom" (***Оригинално заглавие:*** *Драпкин, Б. 2015. Материнская любовь. Москва, Издательский дом „Нарком"*).

FRI-110-1-LLIE(S)-06

SOCIO-DEMOGRAPHIC DETERMINANTS OF THE QUALITY OF EDUCATION

Vladislav Dimitrov – a school teacher
"N. Y. Vaptsarov" – secondary school, Silistra
Tel.: +359899040012
E-mail: vladoyd@abv.bg

Abstract: *The paper reviews different socio-demographic determinants of education and their influence on the results of the students and their marks at school. Some of these are as follows: environment, social and ethnic origin, family, media influence and geographical location. The paper aims to show us how many different factors, which Ministry of education and schools cannot control, could be reasons for bad results at school. The report also provides some studies in this field, using quotes by some scientists form Bulgaria and other countries, which gives an international outlook to the topic.*

Keywords: *Socio-demographic determinants, Environment, Social origin, Ethnic origin, Family, Media influence, Geographical location.*

REFERENCES

Kovalev, N. E. and co. "Vvedenie v pedagogiku", M. 1986, p.141 (***Оригинално заглавие:*** *Ковалев. Н. Е. И др. „Введение в педагогику", М., 1986, с.141*)

Pedagogicheskaya enciklopediya, vol, 4, 1968, p.120 (***Оригинално заглавие:*** *„Педагогическая энциклопедия", т.4. 1968, с. 120*)

Vasilev, D. "Pedagogika", S., 1992, p. 78 (***Оригинално заглавие:*** *Василев, Д., Педагогика,С., 1992, с.78*)

Vasilev D. "Pedagogika", S., 1992, p. 79-80 (***Оригинално заглавие:*** *Василев, Д., Педагогика,С., 1992, с.79-80*).

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.115 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество", С, 1988, стр. 115*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.338 (**Оригинално заглавие:** *Андреев, М., „Образование и общество", С, 1988, С, 1988, стр. 388*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.338 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество", С, 1988, С, 1988, стр. 388*)

Andonova, Violeta, "Uspeshni pedagogicheski praktiki pri rabota s detsa ot razlichni etnicheski obshtnosti", "Pedagogicheski forum" journal, 2004, vol. 1, St. Zagora, 2004, p. 65 (***Оригинално заглавие:*** *Андонова, Виолета, „Успешни педагогически практики при работа с деца от различни етнически общности" – сп., „Педагогически форум" 2004, свитък 1, Ст. Загора, 2004, с.65*)

G, N. Filonova, "Formirovanie lichnosti : problemay komleksnogo podhoda v protsese vospitaniya shkolnika", M, 1983, p. 58 (***Оригинало заглавие****: Г. Н. Филонова „Формирование личности: проблемы коплексного подхода в процесе воспитания школьника", , М., 1983, с. 58*)

Vasilev, D. "Pedagogika", S., 1992, p. 81 (***Оригинално заглавие:*** *Василев, Д., „Педагогика", С., 1992, с.81*)

Vasilev, D. "Pedagogika", S., 1992, p. 224 (***Оригинално заглавие:*** *Василев, Д., „Педагогика", С., 1992,,С., 1992, с. 224*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.346 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество", С, 1988, стр. 346*)

 Copyrights© http://conf.uni-ruse.bg

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.193 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество",, С, 1988, стр. 192*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.389 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество",, С, 1988, стр. 389*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.389 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество",, С, 1988, стр. 389*)

Vasileva, E., "Semya i eyo funkcii", M. 1975, P.6 (***Оригинално заглавие:*** *Василева, Э. К. „Семя и её функции", М., 1975, с.6*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.349 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество",, С, 1988, стр. 349*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.344 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество",, С, 1988, стр. 344*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.345 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество",, С, 1988, стр. 345*)

Babalova, R., "Teoriya na vazpitanieto", vol. 1, S., 1991, p. 132 (***Оригинално заглавие:*** *Бабалова, Р., „Тоерия на възпитанието – I част", С., 1991, с.132*)

Babalova, R., "Teoriya na vazpitanieto", vol. 1, S., 1991, p. 138 (***Оригинално заглавие:*** *Бабалова, Р., Тоерия на възпитанието – I част, С., 1991, с.138.*)

Vasilev, D. "Pedagogika", S., 1992, p.229 (***Оригинално заглавие:*** *Василев, Д., „Педагогика", С., 1992, с.229*)

Andreev, M., "Obrazovanie i obshtestvo", S., 1988, p.174 (***Оригинално заглавие:*** *Андреев, М., „Образование и общество" С, 1988, стр. 174*)

Chavdarova-Kostova, S., article "Faktori na vazpitanieto", "Pedagogika" journal, S,. 2008, P. 118 (***Оригинално заглавие:*** *Чавдарова-Костова, С., ст.„Фактори на възпитанието" в „Педагогика", С., 2008,с.118.*)

Chavdarova-Kostova, S., article "Faktori na vazpitanieto", "Pedagogika" journal, S,. 2008, P. 120 (***Оригинално заглавие:*** *Чавдарова-Костова, С., ст.„Фактори на възпитанието" в „Педагогика", С., 2008с, 120* (*цитирано е от "Lehrplan des Abendlandes. Zweineinhalb Jahrtausende seiner Gecshichte" на Dolch, Josef, Ratingen: Aloys Nenn, 1959, с. 312*)

Chavdarova-Kostova, S., article "Faktori na vazpitanieto", "Pedagogika" journal, S,. 2008, P. 121 (***Оригинално заглавие:*** *Чавдарова-Костова, С., ст.„Фактори на възпитанието" в „Педагогика", С., 2008, с. 121*)

Vasilev, D. "Pedagogika", S., 1992, p.80 (***Оригинално заглавие:*** *Доно Василев, „Педагогика", С., 1992, с.80*)

FRI-110-1-LLIE(S)-07

DISCOVERING LANGUAGE AND SPEECH PATHOLOGIES IN PRE-SCHOOL AND PRIMARY SCHOOL CHILDREN[1]

Assos. Prof. Valentina Vasileva, PhD
Department of Pedagogy, Psihology and History
"Angel Kanchev" Univesity of Ruse
Tel.: 082/888-268
E-mail: vvasileva@uni-ruse.bg
Assos. Prof. Desislava Stoyanova, PhD
Department of Pedagogy, Psihology and History
"Angel Kanchev" Univesity of Ruse
Tel.: 082/888-268
E-mail: dstiyanova@uni-ruse.bg

Abstract:*Discovering language and speech pathologies in pre-school and primary school children: Speech and language abnormalities are associated with communication problems and violation of the sound-articulation features of a person's speech. Breaches of this type that are of a biological nature are known as speech-language pathologies. Speech and language disorders are explored by the science of speech therapy.*

The term logopedics (from logos, speech, and paideia-education) means science of speech disorders and methods of their prevention, diagnosis, overcoming, social rehabilitation of children and persons with speech and speech disorders. The Subject and focus of speech therapy are the regularities and peculiarities in the occurrence and development of speech disorders and the main processes of correction and rehabilitation of speech functions. In the scope of logopedics is children from preschool and school age as well as adults with abnormal speech status. The main aim of speech therapy is to develop and implement scientifically proven and practically verified methods of speech prevention and treatment of speech pathologies through specialized systems for education, education and socialization of speech pathologists. Theoretical research and the development of tools for the early discovery of linguistic and speech pathologies are the subject of a project INTERACTIVE TOOLS FOR TEACHERS AND CHILDREN AT INITIAL EDUCATION. This project (2017-1-BG01-Ka201-036295) has been funded with support from the European Commission (Erasmus+ Programme).

Keywords: *Education, Speech and language disorders, speech pathologies*

JEL code: *I29*

REFERENCES

Andreeva, L. (1999). Sotsialno poznanie I mezhdulichnostno vzaimodeystvie, Lik, Sofia (**Оригинално заглавие:** Андреева, Л., 1999. Социално познание и междуличностно взаимодействие. София: Издателство „Лик").

Karagyozov,I. , A. Garnacheva (1996). Special pedagogy, Abagar, Veliko Tarnovo (***Оригинално заглавие:*** *Карагьозов, И., А. Гърбачева 1996. Специална педагогика. Велико Търново: Издателство „Абагар"*).

Karagyozov,I. , A. Garnacheva (1995). Fundamentals of defectology, Abagar, Veliko Tarnovo (***Оригинално заглавие:*** *Карагьозов, И., А. Гърбачева 1996. Основи на дефектологията. Велико Търново: Издателство „Абагар"*).

LAW on pre-school and school education Prom., SG, no. 79 of 13.10.2015, in force since 1.08.2016, amend. and so on, no. 98 of 9.12.2016, in force as of 1.01.2017, amend. 105 of 30.12.2016 in force from 01.01.2017, no. 58 of 18.07.2017, in force since 18.07.2017 URL: https://www.mon.bg/upload/12190/zkn_PUObr_180717.pdf

[1] Докладът е представен на пленарната сесия на 19 октомври 2018 с оригинално заглавие на български език: Откриване на езикови и речеви патологии при деца от предучилищна и начална училищна възраст

 Copyrights© http://conf.uni-ruse.bg

World Education Forum (2015); Framework for Action Education 2030: Towards inclusive and equitable quality education and lifelong learning for all

URL: http://www.unprme.org/resource-docs/draftframeworkforaction.pdf /visited on 13.11.2017/

ORDINANCE ON INCLUSIVE EDUCATION Prom. - SG, No. 86 of 27.10.2017, in force as of 27.10.2017.Adopted by Council of Ministers Decree No. 232 of 20.10.2017 (***Оригинално заглавие:*** *НАРЕДБА за приобщаващото образование Обн. - ДВ, бр. 86 от 27.10.2017 г., в сила от 27.10.2017 г. Приета с ПМС № 232 от 20.10.2017 г.*)

URL: https://www.mon.bg/upload/4148/nrdb_priobshavashto_271017.pdf

RI-216-1-NTS(S)

FRI-216-1-NTS(S)-01

LINGUODIDACTIC MODEL FOR FOREIGN LANGUAGE LEARNING WITH INTEGRATION OF COMPUTER TECHNOLOGIES

Desislava Baeva, PhD
Department of Natural Sciences and Education,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 214
E-mail: dbaeva@uni-ruse.bg

Abstract: *Regardless of the potential of electronic technology for the revolutionary transformation of the learning the dominant model in the world still has not changed substantially. This article describes the main characteristics of learning to integrate computers in the study of a foreign language through the focus of a university course of study. It outlines current trends, entered the world of education practice.*

Keywords: *Multimedia, Foreign language teaching, Innovation*

REFERENCES

Beetham, H.(2004), Review: developing e-learning models for the JISC Practitioner communities - http://www.jisc.ac.uk., 2004.

Claxton G.(2010) Bodies of knowledge(2010), Centre for Real-World Learning at the University of Winchester

Georgieva E., Cv Georgiev. (2010) Standarti za mobilno obuchenie, Nauchni trudove na Rusenski universitet – 2010 (***Оригинално заглавие:*** *Георгиева Е., Цв. Георгиев Стандарти за мобилно обучение , Научни трудове на русенския университет - 2010, том 49, серия 3.2*)

Stoichkov R., M. Hubenova (2010) Nqkoi aspekti na rannoto chuvdoezikovo obuchennie (***Оригинално заглавие:*** *Стоичков Р., М. Хубенова Някои аспекти на ранното чуждоезиково обучение*), http://www.see-educoop.net/education_in/ pdf/ educ_ sch_ prim-bul-blg-t07.pdf

Forsajt R. (2010), Elektronnoto obuchenie – teoriq praktika aspekti na pedagogicheskiq dizajn, Sofijski universitet, 2010 (***Оригинално заглавие:*** *Пейчева-Форсайт, Р. Електронното обучение – теория, практика, аспекти на педагогически дизайн. Списание на Софийския Университет за електронно обучение, 2010/1*)

 Copyrights© http://conf.uni-ruse.bg

FRI-216-1-NTS(S)-02

STUDY OF THE FUEL PRESSURE IMPACT ON INJECTION INITIATION BY ELECTROMAGNETIC INJECTORS CRI1

Pr. Assist. Valentin Manev, PhD
Department of Philological and Natural Sciences, Silistra Branch,
"Angel Kanchev" University of Ruse
Phone: 0887 41 98 08
E-mail: vmanev@mail.bg

Pr. Assist. Milen Sapundzhiev, PhD
Department of Philological and Natural Sciences, Silistra Branch,
"Angel Kanchev" University of Ruse
Phone: 0899 234 954
E-mail: msapundziev@uni-ruse.bg

Abstract: *This report presents the results of an experiment to determine the changein the hydraulic characteristics of a first-generation Common Rail electromagnetic injectors by changing the fuel pressure atthestart of the injection. The mostwidely used electromagnetic injectors CRI1 with a maximum pressure of 1350 bar waschosenas the subject of the study. The characteristics are studied by using an universal bench for testing of diesel fuel systems CMX6000X.*

Keywords: *fuel pressure impact, injection initiation, electromagnetic injectors*

JEL Codes: *L10, L11*

REFERENCES

Sistemi za upravlenie na dizelovi dvigateli. Robert Bosch GmBH, 2004. (***Оригинално заглавие:*** *Системи за управление на дизелови двигатели*)

Hammer J., Einspritztechnik, Universitat Stuttgart, 2011.

Uzuntonev Tr., Regulirovka i izpitvane na elektromagnitni dyuzi ot sistemata Common Rail, Sbornik dokladi na nauchni konferentsii na RU „A. Kanchev" 2009, tom 48, seria4, str. 37-41; (***Оригинално заглавие:*** *Узунтонев Тр., Регулировка и изпитване на електромагнитни дюзи от системата Common Rail, Сборник доклади на научни конференции на РУ „А. Кънчев" 2009, том 48, серия4, стр. 37-41*)

www.bosch.com

FRI-216-1-NTS(S)-03

ELECTRIC MOTORS USED IN MODERN HYBRID AND ELECTRIC CARS AND DEVELOPMENT PROSPECTS

Pr. Assist. Milen Sapundzhiev, PhD
Department of Philological and Natural Sciences, Silistra Branch,
"Angel Kanchev" University of Ruse
Phone: 0899 234 954
E-mail: msapundziev@uni-ruse.bg

Pr. Assist. Valentin Manev, PhD
Department of Philological and Natural Sciences, Silistra Branch,
"Angel Kanchev" University of Ruse
Phone: 0887 41 98 08
E-mail: vmanev@mail.bg

Abstract: *This report provides an analysis of the advantages and disadvantages of electric motors used by hybrid cars and electric cars. The essential requirements for their exploitation and future development trends are listed.*

Keywords: *hybrid car, electric car, electric motor*

JEL Codes: *L10, L11*

REFERENCES

CO2EmissionsFrom Fuel Combustion, International Energy Agency, 2014

Eshani M., Y. Gao, A. Emadi. Modern Electric, Hybrid Electric, and Fuel Cell Vehicles - Fundamentals, Theory, and Design (Second Edition).Taylor&Francis, 2010, 534p., ISBN 978-1-14200-5398-2

Finken T., K. Hameyer. Design of Electric Motors for Hybrid- and Electric-Vehicle Applications. https://www.researchgate.net/publication/268289590_Design_of_Electric_Motors_for_Hybrid-and_Electric-Vehicle_Applications

Finken T., M. Hombitzer, K. Hameyer. Study and Comparison of several Permanent-Magnet excited Rotor Types regarding their Applicability in Electric Vehicles. https://ieeexplore.ieee.org/-document/5668074

Larminie J., J. Lowry. Electric Vehicle Technology Explained. John Wiley&sons LTD, 2012, 314p.ISBN 978-1-119-94273-3.

New Generation of Electric Vehicleshttp://dx.doi.org

Toyota Hybrid SystemTHSII. http://www.sze.hu/~szenasy/SZINKRONMOTKUTFEJL/-THS-II.pdf

Evtimov I., R. Ivanov. Elektromobili, Ruse, 2011. (***Оригинално заглавие:*** *Евтимов И., Р. Иванов. Електромобили, Русе, 2011*)

 Copyrights© http://conf.uni-ruse.bg

FRI-216-1-NTS(S)-04

CREATING KNOWLEDGE TESTS FOR MOBILE DEVICES

Principal Assist. Prof. Evgenia Goranova, PhD
Department of Philologocal and Natural Sciences, Silistra Branch,
University of Ruse "Angel Kanchev"
Phone: 086-821 521
E-mail: egoranova@uni-ruse.bg

Abstract: *Mobile learning is a reality in which mobile devices are used to learn and share learning resources at any time and from anywhere. Using them to create fun games to test the learning outcomes with the help of the Kahoot platform enhances students' motivation for learning activities, leads to better learning outcomes and optimizes the teacher's work in his evaluation work.*

Keywords:*mobil learning, mobildivices, kahoot platform, kahootquiz.*

JEL Codes: *I20, I21*

REFERENCES

Goranova, E. (2014). Model Za Obuchenie po Informacionni Technologii v Multimedina Sreda. Ruse: Izdatelski center na Rusenski Universitet (***Оригинално заглавие:*** *Горанова, Е., 2014. Модел за обучение по информационни технологии в мултимедийна среда. Русе: Издателски център на Русенски университет.*)

Goranova,E., (2015). Research on the Efficiency of the Training in Computer Science Through Multimedia Environment, Paper presented at the 7th International Conference on Education and New Learning Technologies, 6-8 July, 2015, Barcelona, Spain

Goranova,E., & Vionohovska, V. (2018). Students' Attitudes Toward the Use of M-learning – a Study in the Bulgarian Secondary Schools. Paper presented at the 11th annual International Conference of Education, Research and Innovation, 12th - 14th of November, 2018.Seville, Spain.

Kahoot For Schools (2018). URL: https://kahoot.com/schools (Accessed on 16.09.2018).

Zheliazkova, I., & Andreeva, M. (2004). An Intelligent Multimedia Environment for Knowledge Testing. Paper presented at the: E- learning and the Knowledge Society, Gent & Brussels, 2004.

Zheliazkova, I., Andreeva, M., & Kolev R. (2007). Knowledge Testing in Algorithms – An Experimental Study. International Journal Information Technologies & Knowledge, 1, 26-33.

OCTOBER RESEARCH CONFERENCE IN RUSE

FRI-2.101-KS

FRI-2.101-KS-01

HYBRID MANUFACTURING: ENABLING TECHNOLOGIES AND APPLICATIONS

Prof. Stefan Dimov, Dipl. Eng., PhD, DSc, FIMechE
Department of Mechanical Engineering, School of Engineering,
Engineering and Physical Science College
University of Birmingham
Tel.: +44 (0) 121 414 7224
E-mail: s.s.dimov@bham.ac.uk

Abstract: *Additive Manufacturing (AM) of metal parts made a significant progress in the last two decades. Especially, there have been significant advances in single-step Powder Bed Fusion (PBF) technology and currently laser-based PBF can be considered the most widely adopted process for metal AM. Multi-step Binder Jetting follow by Sintering (BJ+S) technology has advanced too and now it is commercially offered for one-off and batch manufacture of metal parts. In general, the metal AM technologies has matured to reach a level where they can be considered as viable alternatives for producing near net shape parts that can meet the requirements of niche markets, mostly for small batch manufacture. However, to increase productivity, quality and cost-effectiveness of such single and multi-step metal AM technologies, it is necessary to integrate them in production lines with complementary and at the same time mature and widely used by industry technologies, e.g. the whole range of machining, heat treatment and surface engineering processes. To achieve this it is necessary to create system-level tools for interfacing metal AM processes with pre-processing and post-processing machining technologies into production lines and thus to meet specific application requirements. The talk will provide an overview of recently developed enabling technologies for hybrid manufacturing in EC and nationally funded research programmes. The talk will discuss generic integration issues in improving the system-level performance of metal AM technologies. In particular, the talk will discuss the design and implementation of modular work holding systems, automated workpiece setting up routines and inline inspection/monitoring solutions for interfacing BJ+S and laser-based PBF technologies with pre- and post-processing processes. Pilot implementations will be used to demonstrate the flexibility and operability of the proposed tools to address important system-level issues in integrating metal AM technologies in production line. Case studies will be used to illustrate the capabilities of these tools when employed for producing complex parts.*

Keywords:. *additive manufacturing, powder bed fusion, metal*

 Copyrights© http://conf.uni-ruse.bg

FRI-2.101-KS-02

INDUSTRY 4.0 - HIGHER EDUCATION PERSPECTIVE

Todor Dobrev, PhD
Senior Lecturer, College of Engineering and Technology
University of Derby, UK
E-mail: T.Dobrev@derby.ac.uk

Abstract: *Industry 4.0 is a broad enough category to interpret modern achievements and change in the way of thinking – a strategy for smart, sustainable and inclusive a growth.*

The Plenary Report focuses on the requirements of the modern technological revolution and what it means to educate and acquire competencies and skills in the areas of knowledge such as: laser material processing, advanced manufacturing technology, robotics and process chains.

The author will present a new training system that started as a pilot program at the Derby University, United Kingdom.

Keywords:*. industry 4.0, higher education, laser Micro- and Nano-manufacturing; Ultra-fast lasers; CAD/CAM; advanced design for X; design for sustainability*

FRI-2.101-KS-03

ENERGETICS OF LIGHTING IN TIME SYSTEMS

Assoc. Prof. Radoslav Kyuchukov, PhD
Electric Power Engineering Department
University of Ruse, Bulgaria
Tel.: +359 82 888 319
E-mail: rivanov@uni-ruse.bg

Abstract: *The organization of the light part of the day is applied for rational use of electrical energy for lighting. Historically, Daylight Saving Time is introduced as a measure to save electricity for lighting. Later on, he has grown inertia and motivated himself as a measure to improve the quality of life.*

At the University of Ruse, systematic studies have been carried out on the usability of artificial lighting. A methodology has been developed for assessing the usability of arti-ficial lighting in two systems of time – zone time and summer time. A national database containing the energy-economic indicators of artificial lighting in 27 geographic points in Bulgaria was established.

From this objective information base are presented representative data. The expected better use of daylight at daylight saving time is not confirmed. Under certain work-time plans, in some parts of the country, energy costs even increase. The increase is both in absolute terms and through the change in the usability of lighting throughout the tariff zones (eg redistribution from night to day energy).

Keywords:*. lighting, daylight saving time, zone time, summer time*

FRI-8.121-1-AMT&ASVM

FRI-8.121-1-AMT&ASVM-01

STUDY OF VIBRATIONS CAUSED BY ROTARY MOVEMENT OF ELECTRIC MOTORS

Assoc. Prof. Radko Mihaylov, PhD
Dobrudzha College of Technology Dobrich part of the
Technical University of Varna, Bulgaria
Tel.: 0899 904 980
E-mail: rmihajlow@tu-varna.bg

Assist. Prof. Vladimir Demirev, PhD
Dobrudzha College of Technology Dobrich part of the
Technical University of Varna, Bulgaria
Phone: 0894 651 789
E-mail: vl.demirev@abv.bg

Abstract: *The object of the study is devices and facilities in which the main purpose is realized by rotational motion. The vibrations as a signal of the excited vibrations caused by it are recorded in digital form. Transformation from time domain to frequency domein is made. The resulting spectrum i.e., the amplitude-frequency characteristics is analyzed. They provide rich information about the general condition of the object being investigated and the state of the individual nodes that make a rotating motion relative to a fixed axis, such as bearings. Conclusions and recommendations on the technical condition of the investigated objects were made.*

Keywords: *signal, vibration, spectrum, diagnosis.*

REFERENCES

Nafikov, A. (2004). Identification of defects of rolling bearings using the method of phase portraits during vibration diagnostics of pumping units, Specialty 05.02.13 - "Machines, Aggregates and Processes" (Engineering in the Oil Industry), the dissertation author's abstract on competition of a scientific degree of the Candate Technical Science, Ufa – 2004), (***Оригинално заглавие:*** *Нафиков, А.* (*2004*). *Выявление дефектов подшипников качения с использованием метода фазовых портретов при вибродиагностике насосных агрегатов, Специальность 05.02.13 – "Машины, агрегаты и процессы"* (*Машиностроение в нефтеперерабатывающей промышленности*) *автореферат диссертации на соискание ученой степени кандидата технических наук, Уфа – 2004*);

Shirman, A., A. Sobolev, (1996). Practical vibrodiagnostics and monitoring of the state of mechanical equipment, Moskva 1996, UDK 621 833, (***Оригинално заглавие:*** *Ширман, А., А. Солобев,* (*1996*). *Практическая вибродиагностика и мониторинг состояния мехнаического оборудования, Москва 1996, УДК 621 833*);

Rusov V. A. (2012). Diagnostics of defects of rotating equipment by vibration signals ,http://vibrocenter.ru/book6.htm (***Оригинално заглавие:*** *Русов В.А. (2012). Диагностика дефектов вращающегося оборудования по вибрационным сигналам, http://vibrocenter.ru-/book6.htm*);

Pozhidaeva, V. Symptoms of vibro-diagnostics of electric motors from mining machinery drives, Yearbook, Volume 47, Scroll III, Mechanization, Electrification and Automation of Mines, Sofia 2004, pp. 47-50, (***Оригинално заглавие:*** *Пожидаева, В., Симптоми за вибродиагностика на електродвигателите от задвижванията на минната механизация, Годишник, том 47, свитък III, Механизация, електрификация и автоматизация на мините, София 2004, стр. 47-50*);

 Copyrights© http://conf.uni-ruse.bg

Brian P. Graney and Ken Starry. (2011). Rolling element Bearing Analysis, Materials Evaluation, Vol. 7 No. 1. Pp. 78-85, Copyright © 2011, The American Society for Nordestructive Testing, Inc.;

Daniel Lynn. (2010) Выявление дефектов подшипников качения с помощью анализа вибрации, Manager Training, Computational Systems, Inc. (CSI) Пер. с англ. И.Р. Шейняк, под редакцией В.А. Смирнова., http://www.vibration.ru/zamaraev/calc.shtml#top ;

Saruhan, S. Sardemir, A. Çiçek, & H. Uygur, (2014) Vibration Analysis of Rolling Element Bearings Defects, Journal of Applied Research and Technology, Vol. 12, pp. 384 - 395, June 2014;

Upadhyay R. K., L.A. Kumaraswamidhas, Md. Sikandar Azam. (2013). Rolling element bearing failure analysis: A case study, Case Studies in Engineering Failure Analysis 1 15–17, www.els evier.com/locate/csefa

INTERNATIONAL STANDARD IS0 10816-I, First edition 1995-l 2-15 Mechanical vibration - Evaluation of machine vibration by measurements on non-rotating parts; (***Оригинално заглавие:*** *ГОСТ ИСО 10816-1-97, Вибрация, Контрол состояния машин по резултатам измерений вибрации на невращающихся частях, Част 1 Общие требования.*)

FRI-8.121-1-AMT&ASVM-02

MECHANIZATION OF SMALL FAMILY FARMS IN POLAND

Prof. Edmund Lorencowicz
Department of Machinery Exploitation and Management of Production Processes,
University of Life Sciences in Lublin, Poland
Phone: +48 815 319 736
E-mail: edmund.lorencowicz@up.lublin.pl

Prof. Jacek Uziak
Department of Mechanical Engineering
University of Botswana, Gaborone, Botswana
Phone: +267 355 4304
E-mail: uziak@mopipi.ub.bw

Abstract: *One of the main problems of small family farms is mechanization of farm works. However, machinery ownership is limited due to lack of funds. One of the possible solutions is to develop cooperation in machinery usage by group of farmers. Polish farming is traditionally very fragmented with the average farm area is around 10.3 ha, and 54% below 5 ha of UAA. Such small acreage affects the level of mechanization, making it very limited and inadequately low. Approximately 1.4 million farms are using almost 956,000 tractors, however their age and quality are key limitations in the introduction of new technologies. The paper presents common forms of collaboration between farmers to provide better access to machinery under Polish conditions.*

Keywords: *small farms, mechanization, farmers co-operation*

JEL Codes: *Q16*

REFERENCES

Culpin C. 1975. Profitable farm mechanization. Crosby Lockwood Stapels, London

Charakterystyka gospodarstw rolnych w 2016 r. 2017. GUS Warszawa (in Polish).

de Toro A., Hansson P.A. 2004. Machinery Co-operatives – a case study in Sweden. Biosystem Eng., no. 87 (1), pp. 13-15.

Kooperationen gründen und erfolgreich führen. 2005. KTBL-Schrift Nr. 433, Darmstadt, pp. 182 (in German).

Kowalczuk D. 2005. Ocena zakresu współpracy rolników przy wykonaniu prac maszynowych. Typescript of MSc thesis, under supervision of E. Lorencowicz, WIP AR Lublin, pp. 58 (in Polish).

Landers A. 2000. Farm machinery selection, investment and management. Farming Press, Kent, pp. 152.

Lorencowicz E. 2006. Kooperacja jako element racjonalnego wykorzystania środków technicznych w gospodarstwach rodzinnych. RN SERiA, no. VIII, issue 7, pp. 99-102 (in Polish).

Theunissen P. 2002. An Economical Approach to Agricultural Machinery Management. Computus Management Information (Pty) Ltd, Betlehem, pp.256.

Weshe R. 2004. Formen der Zusammenarbeit Landwirtschaftlichen Betriebe. www.ktbl.de/betrieb/leitfaden (accessed 18 Jan. 2005) (in German).

Witney B. 1988. Choosing and Using Farm Machines. Longman Scientific and Technical Essex, pp. 412.

 Copyrights© http://conf.uni-ruse.bg

FRI-8.121-1-AMT&ASVM-03

STUDY CONCERNING THE EFFECTIVENESS OF SOME SOIL HERBICIDES TO WHEAT VARIETY "VENKA 1"

Assoc. Prof. Svetlana Stoyanova, PhD
Institute of Agriculture and Seed Science
"Obraztsov Chiflik" of Ruse
Phone: +35982 820 801
E-mail: sv_stoianova@mail.bg

Abstract: *During 2013-2016 in the experimental field of the Institute of Agriculture and Seed Science "Obraztsov Chiflik" - Ruse,in field experiment on soil type strongly leached chernozem, on the experimental field on the density and species composition of weeds in wheat variety „Venca 1".*

For this purpose the effectiveness at three soil herbicides - Afalon 45CK (450g.l^{-1} linuron), Stomp 330EK (330 g.l^{-1} pendimethalin) and Zenkor 70VG (700 g.kg^{-1} metribuzin), applied in optimal and double increased doses was studied.

The experiment was started after the block method in four replications, the experimental plot being 50 m^2.

The objective of the study was the establish effectiveness at three soil herbicides, applied in optimal and double increased doses on the species composition of weed associations in wheat variety „Venca 1".

The highest effectiveness against mixed type of weedness is showed by herbicides Stomp 330EK (98%) and Zenkor 70VG (95%), in the double increased dose. The lowest effectiveness against annual grassy weeds is showed by soil herbicid Afalon 45CK, average for the period from 72 to 77%.

All three soil herbicides inhibit the growth and development of Convolvulus arvensis (L.), Cirsium arvense (L.) and Cardaria draba (L.) at the tested doses but do not reduce their density.

Keywords: *wheat, weeds, herbicides, efficiency, grain yield*

REFERENCES

Delibaltova, V., I. Zhelyazhkov, T. Tonev. (2009). Influence of some herbicides on the weediness and productivity of common wheat (Triticum aestivum L.). Agricultural Science, №2, 19-25.

Kolev, I. (1963). Weeds in Bulgaria, Publishing House of the Bulgarian Academy of Sciences, Sofia.

Popov A., K. Pavlov, P. Popov. (1966). Plant growing. Cereal crops. Zemzemat, Sofia, 167-169.

A list of the plant protection products authorized to be marketed and used. (2013)**.**

Sabev, G. (2000). Now is the time to give serious resistance to weeds in cereal crops. Plant protection, №2, 20-21.

Tityanova, M., T. Tonev, A. Mitkov. (2007). New opportunities for effective chemical control of weeds in wheat. Plant Breeding Sciences, 49, 154-160.

Tonev, T.(2012). Efficient herbicides for wheat in 2012. Agriculture plus, №2, 14-15.

Shanin, Y. (1965). Methodology of Polish experience. Publishing House of the Bulgarian Academy of Sciences, Sofia, 65-72.

Senior, I. J. and P. J. Dale. 2002. Herbicide-tolerant crops in agriculture: oilseed rape as a case study, Plant Breeding, 121, (2), 97-107.

FRI-8.121-1-AMT&ASVM-04

EFFECT OF HERBICIDES ON YIELD AND STRUCTURAL ELEMENTS OF EXTRACTION IN HYBRID RS 464 AND PARENTAL COMPONENTS

Assoc. Prof. Dimitriya Ilieva, PhD
Department of Agricultural Machinery,
"Angel Kanchev " University of Ruse, Bulgaria
Phone: 082 888 542
E-mail:dilieva@uni-ruse.bg

Chief Assistant Svetlana Stoianova, PhD
Institute of Agriculture and Seed Science "Obraztsov Chiflik" - Ruse,
Tel.: 082 820 802
E-mail: sv_stoianova@mail.bg

Abstract: *In 2008 – 2010 y. in the experimental field of the Institute of Agriculture and Seed science "Obraztsov Chiflik" - Rousse, on a soil type highly leached chernozem, a field experiment was conducted with maize hybrid RS 464 and its parental forms - lines R 619 and MO 17. The influence on the yield and its structural elements of two vegetative herbicides against Johnson grass Titus 25 DF (250 g.kg-1 rimsulfuron) and Mistral 4 CK (40 g.l-1 nicosulfuron) was tested. The herbicides were introduced in the 4-5th leaf phase in an optimal dose, once and twice, in an interval of 14 to 20 days. The experiment was carried out with the perpendicular method of Shanin, with the size of the experimental plot of 10 m2. A control free of weeds was maintained throughout the growing season. The grain yield obtained from the variants treated with the tested herbicides was lower than that of the relevant control variant of the respective genotype Only line Mo 17, in the variant with application of Titus 25 MF, applied twice, was reported a higher yield of 7%, which was not statistically proven. The studied herbicides have no influence not only on grain yield but also on its structural elements. Statistically proven differences were established compared to the control variant for the values of the parameters: number of grains in the row of the line RM 619 and the length of the cob of the line MA 17.*

Keywords: *maize, hybrids, lines, herbicides, productivity, structural elements*

REFERENCES

Bazitov, R., Ganchev, G., Bazitov, V., Michailova, M., 2010. The role of processing and soil fertilizacion on changes in chemical composition of pea-wheat mixture. International scientific online journal "Science & Technologies", Plant studies (6):205-208.

Delibaltova, V., Il. Jeliazkov, T. Tonev. 2009. Vlianie na niakoi herbicidi varhu zaplevelenostta i produktivnostta na obiknovenata pshenica (*Triticum aestivum L.*), *Agrarni nauki, № 2, str. 19-25.* (***Оригинално заглавие:*** *Делибалтова, В., Ил. Желязков, Т. Тонев. 2009. Влияние на някои хербициди върху заплевелеността и продуктивността на обикновената пшеница* (*Triticum aestivum L.*)*, Аграрни науки, №2, стр. 19-25.*)

Hristov, I., E. Davidov, D. Georgiev, V. Angelov, P. Petrov, G. Cvetanova. 2010. Dobiv na suha masa i energiina efektivnost na kulturite v petpolno seitboobrashtenie v zavisimost ot toreneto *International scientific on-line journal "Science & Technologies", Plant studies* (6), *154-159.* (***Оригинално заглавие:*** *Христов, И., Е. Давидов, Д. Георгиев, В. Ангелова, П. Петров, Г. Цветанова. 2010. Добив на суха маса и енергийна ефективност на културите в петполно сеитбообръщение в зависимост от торенето. International scientific on-line journal "Science & Technologies", Plant studies* (6), *154-159.*)

Kuneva, V., R. Kalaidjieva, Al. Matev. 2014. Korelacionni zavisimosti mejdu strukturnite elementi na dobiva pri soiata, otglejdani pri razlichen poliven rejim, Nauchni trudove, Rusenski universitet, tom 53, seria 1.1., Ruse, 40-43, ISSN 1311-3321. (***Оригинално заглавие:*** *Кунева, В., Р.Калайджиева, Ал.Матев. 2014. Корелационни зависимости между структурните елементи на добива при соята, отглеждана при различен поливен режим, Научни трудове, Русенски университет, том 53, серия 1.1, Русе, 40-43, ISSN 1311-3321.*)

 Copyrights© http://conf.uni-ruse.bg

Mangova, M., V. Veleva. 1986. Prouchvane vlianieto na herbicida tricilin varhu tehnologichnite kachestva na razlichni po sila sortove zimna pshenica, Rastenievadni nauki, № 4, str. 11-14.(***Оригинално заглавие:*** *Мънгова М., В. Велева. 1986. Проучване влиянието на хербицида трицилин върху технологичните качества на различни по сила сортове зимна пшеница, Растениевъдни науки, №4, стр. 11-14.*)

Mitkov, A., M. Titiyanova, T. Tonev. 2009. Selektivnost na herbicidniya preparat Uidmaster uam zarneno-jitni kulturi, Treti nacionalen simpozium „ Ekologichni podhodi pri proizvodstvoto na bezopasni hrani „, str. 245-252.(***Оригинално заглавие:*** *Митков, А., М. Титянова, Т. Тонев. 2009. Селективност на хербицидния препарат Уидмастер към зърнено-житни култури, Трети национален симпозиум „Екологични подходи при производството но безопасни храни", стр. 245-252.*)

Popov A., K. Pavlov, 1966. Plant growing, Cereal crops, Volume I. In:Maize, Zemizdat, Sofia (Bg), pp. 413-461.

Shanin, J. 1965. Metodika na polskia opit. Izdatelstvo na Balgarska Akademia na naukite, Sofia.(***Оригинално заглавие:*** *Шанин, Й. 1965. Методика на полския опит, Издателство на Българската академия на науките, София.*)

Titiyanova, M., T. Tonev, A. Mitkov. 2007. Novi vazmojnosti za efektiven himicheski control na plevelite pri pshenicata, Rastenievadni nauki, 49, str. 154-160. (***Оригинално заглавие:*** *Титянова, М., Т. Тонев, А. Митков. 2007. Нови възможности за ефективен химически контрол на плевелите при пшеницата, Растениевъдни науки, 49, стр. 154-160.*)

Titiyanova, M., T. Tonev, A. Mitkov. 2010. Himicheski control varhu polskata ovsiga (*Bromus arvensis L.*) v posevi ot pshenica, Iubileina nauchna konferencia s mejdunarodno uchastie "65 godini AU – Plovdiv", Nauchni trudove, tom LV, sn. 2, str. 139-142 (***Оригинално заглавие:*** *Титянова, М., Т. Тонев, А. Митков. 2010. Химически контрол върху полската овсига* (*Bromus arvensis L.*) *в посеви от пшеница, Юбилейна научна конференция с международно участие „65 години АУ – Пловдив", Научни трудове, том LV, сн. 2, стр. 139-142.*)

Yanev, I., i kol. 2000. Vlianie na sroka na seitbata, posevnata norma I fosfornoto torene varhu dobiva ot pshenicata. (***Оригинално заглавие:*** *Янев, И., и кол. 2000. Влияние на срока на сеитба, посевната норма и фосфорното торене върху добива на пшеницата, Растениевъдни науки, №9, стр. 743-746.*)

FRI-8.121-1-AMT&ASVM-05

POSSIBILITIES FOR CULTIVATION OF SPRING FORAGE PEA (PISUM SATIVUM L.) CV. "KERPO" FOR FORAGE PRODUCTION IN CHANGE OF MAIN TECHNOLOGICAL FACTORS

Prof., Todor Kertikov, DSc
Institute of Forage Crops, 5800 Pleven, Bulgaria
Phone: 0878 123 563
E-mail: t.kertikov@abv.bg

Assoc. Prof., Atanas Atanasov, PhD
"Angel Kanchev" University - Ruse
Phone: 0885497406
E-mail: aatanasov@uni-ruse.bg

Prof., Daniela Kertikova, PhD
Institute of Forage Crops, 5800 Pleven, Bulgaria
Phone: 0879573099
E-mail: d_kertikova@abv.bg

Abstract: *The field experiment was conducted in the period 2011-2013 with spring forage pea (Pisum sativum L.) cv. "Kerpo". The aim is to establish the possibilities for its cultivation in the change of basic technological factors, as well as the changes in some biometric and quantitative indicators of productivity. Variants: 1 control - by standard technology including fertilization and treatment with herbicides and insecticides; 2 - without the use of preparations of inorganic origin (biological); 3 - treatment only with bio insecticide ("Ecofil P") of organic origin. It was found that the applied different technologies have a significant impact on the change of some biometric and quantitative indicators of productivity. With the highest number of plants, root weight and number of nodules is the crop grown under standard technology. With the lowest percentage of crop lodging, the highest dry weight of a plant and the highest number of branches per plant is the crop also grown by standard technology. When growing the spring pea for the forage production by the biological method and by treatment with the bio insecticide "Ecofil P", the resulting differences in the yield compared to the standard technology are mathematically proven to lower.*

Keywords: *spring pea, technology, biometrics, forage yield*

JEL Codes:

REFERENCES

Angelova, S., Hr. Yancheva. 1995. Comparative testing of certain cereal-legume feed crops under non-irrigating conditions. (In Bulgarian: Сравнително изпитване на някои зърнено-бобови фуражни култури при неполивни условия). Plant Science, 32(6), 115-116.

Vavilov, P., G. Pospanov. 1983. Legumes and the problem of plant protein. (In Russian: Бобовые культуры и проблема растительного белка). Moscow, Rosselkhozizdat, p. 256.

Kertikov T. et all. 2003. Technology for the production of spring forage peas. (In Bulgarian: Технология за производство на пролетен фуражен грах). Agriculture plus, Sofia, 1, 2-16.

Kertikov T. 2010. Study on agronomic aspects of feed peas and vetch. (In Bulgarian: Проучване на агрономически аспекти при фуражния грах и фий). Habilitation work, Pleven, Bulgaria. p. 225.

Krachunov I., A. Kirilov, K. Ivanov. 2007. Influence of the resourse of plant protein on lambs productivity for fattening. (In Bulgarian: Влияние на източника на протеин върху продуктивността на агнета за угояване). *Journal of Mountain Agriculture on the Balkans*. 10(1), 22-29.

Petkova, R. 2006. Productivity and quality of wintering forage pea - a resource to solve

 Copyrights© http://conf.uni-ruse.bg

protein problem. (In Bulgarian: Продуктивност и качество на зимуващия фуражен грах – ресурс за решаване на белтъчния проблем). Dissertation, Sofia, p. 166.

Jacobs J. & Ward G. 2008. Dry matter yields and nutritive value of silage from cereal and pea combinations. Proceedings of the 14th Australian Agronomy Conference. September 2008, Australian Society of Agronomy www.agronomy.org.au. Edited by MJ Unkovich.

Honeycutt W. 1998. Crop rotation impacts on potato protein, Plant Foods Hum. Nutr. 52(4), 279-281.

Kertikova D. & Kertikov T. 2013. Comparative characteristics of spring forage pea varieties. Journal of Mountain Agriculture on the Balkans, 16(2), 492-504.

Mustafa A. & Seguin P. 2004. Chemical Composition and In Vitro Digestibility of Whole-Crop Pea and Pea–Cereal Mixture Silages Grown in Southwestern Quebec. J. Agronomy & Crop Science, 190, 416-421.

Nickel G. 1982. Plant growth regulators agricultural uses, Springer - Verlag, Berlin, Heidelberg New York.

Ramzan M. et all. 2001. Effects of defoliation on forage yield and quality of common vetch, Vicia sativa (L.) harvested at different phenological stages. Balochistan Journal of Agricultural Sciences (Pakistan), Jul-Dec 2001, 2(2), 26 - 29.

Ryabtseva Y. 2009. Some theoretical and experimental data on specific organs of fixation of nitrogen-root tubers formed as a result of symbiosis of pea seed (Pisum sativum L.) and tuberous bacteria (Rhizobium). Agraen vestnik, Ural, 6(60), 41- 44.

Sarker A. et all. 2002. More grain from less rain. ICARDA's Strategy to improve lentil for resource-poor farmers in dry areas. ICARDA, Caravan, 17.

Skubisz G. 2002. Method for the determination of the mechanical properties of pea stems. Int. Agro physics, 16, 73-77.

Smith M. et all. 1987. Legume winter cover crops. Soil Science, 7, 95 - 139.

Yau K. & Bounejmateb M. 2003. Barley legumes rotations for semi-arid areas of Lebanon, European Journal of Agronomy, 19(4), 599-610.

FRI-8.121-1-AMT&ASVM-06

BIOCHEMICAL CHARACTERISTICS OF SPRING FORAGE PEA (PISUM SATIVUM L.) CV. "KERPO" DEPENDING ON THE TECHNOLOGY OF CULTIVATION

Prof., Todor Kertikov, DSc
Institute of Forage Crops, 5800 Pleven, Bulgaria
Phone: 0878 123 563
E-mail: t.kertikov@abv.bg

Assoc. Prof., Atanas Atanasov, PhD
"Angel Kanchev" University - Ruse
Phone: 0885497406
E-mail: aatanasov@uni-ruse.bg

Assoc. Prof., Anna Ilieva, PhD
Institute of Forage Crops, 5800 Pleven, Bulgaria
Phone: 0879583473
E-mail: anna_ibg@yhoo.com

Prof., Daniela Kertikova, PhD
Institute of Forage Crops, 5800 Pleven, Bulgaria
Phone: 0879573099
E-mail: d_kertikova@abv.bg

Abstract: *The purpose of the experiment is to make a biochemical characterization of spring forage pea cv. "Kerpo" depending on the cultivation technology. The study was conducted in the period 2011-2013. It used the split plot method with four repetitions of the variants and a size of 10 m^2 of the harvest plot. For biochemical analysis, plant samples are taken annually during the first and second ten days of June. Of each variant are taken five pieces of monoliths measuring 20x20x30 cm. The number of nodules has been counted, and the nitratreductase activity in the leaves, stems and roots is determined. The content of plastid pigments is also determined in the leaves. It has been established that the treatment of spring forage pea with the "Ekofil P" has a negative impact on the content of plastid pigments in the pea leaves. Regardless of the technology of cultivation, in the crops harvested in the first period, the content of macro elements is higher than that recorded in the later harvesting phase. Nitratreductase activity is highest in the root mass. It changes both on structural elements* (*leaves, stems and roots*) *and depending on the cultivation technology. The total nitratreductase activity and total content of plastid pigments, depending on the technology, increased with respect to the results recorded in the control crop* (*standard technology of cultivation, including fertilization and treatment with herbicides and insecticides*).

Keywords*: spring pea, technology of cultivation, biochemical characteristics*

REFERENCES

Ermakov A. et all. (1987). Methods of biochemical research of plants. (In Russian: Методы биохимического исследования растений). Agropromizdat, Moscow. 134 – 135.

Zelensky, Moscow, G. Mogilev. (1980). Methodical instructions. A comparative assessment of the photosynthetic capacity of agricultural plants by the photochemical activity of chloroplasts. (***Оригинално заглавие:*** *Методические указания. Сравнительная оценка фотосинтетической способности сельскохозяйственных растений по фотохимической активности хлоропластов*). VIR, 86.

Karov St. et all. (1999). Transition to organic farming. (***Оригинално заглавие:*** *Преход към биологично земеделие*). Plovdiv: Scientific papers of the Higher Agriculture Institute, 17-23.

Kertikov T. et all. (2003). Technology for the production of spring forage peas.

 Copyrights© http://conf.uni-ruse.bg

(***Оригинално заглавие:*** *Технология за производство на пролетен фуражен грах*). Agriculture plus, Sofia, 1, 2-16.

Kertikova D, Kertikov T, Popov I. (2009). KERPO – A New Variety of Spring Forage Pea.

Journal of Mountain Agriculture on the Balkans. vol. 12, 2, 342 - 348.

Menshikov V. (1987). Laboratory methods of research in the clinic. (***Оригинално заглавие:*** *Лабораторные методы исследования в клинике*). Moscow, 226.

Ermakov A. et all. (1987). Methods of biochemical research of plants. (***Оригинално заглавие:*** *Методы биохимического исследования растений*). Agropromizdat, Moscow, 134-135.

Sandev S. (1979). Chemical methods for feed analysis. (In Bulgarian: Химични методи за анализ на фуражите). Zemizdat, Sofia.

Stoynev K. (2004). Ecological and technological aspects of modern agriculture. (***Оригинално заглавие:*** *Екологични и технологични аспекти на съвременното земеделие*). Sofia, Science, 17-27.

Jaworski E. (1971). Nitrate reductase assay in intact plant tissues. Biochemical and Biophysical Research Communications, 13, 6, 1274 – 1279.

Kertikova D. & Kertikov T. (2013). Comparative characteristics of spring forage pea varieties. Journal of Mountain Agriculture on the Balkans, 16(2), 492-504.

Kertikov T. & Kertikova D. (2017). Study on grain yield of spring field pea variety Kerpo depending on the technology of cultivation. Journal of Mountain Agriculture on the Balkans, 20(5), 98-106.

Mueller N. et all. (2012). Closing yield gaps through nutrient and water management. Nature, 490, 254–257.

Sinclair T. & Rufty T. (2012). Nitrogen and water resources commonly limit crop yield increases, not necessarily plant genetics Glob. Food Sec., 1, 94–98.

Lassaletta L. et all. (2014). 50 year trends in nitrogen use efficiency of world cropping systems: the relationship between yield and nitrogen input to cropland. Environmental Research Letters, 9 105011 (9pp), doi: 10.1088/1748-9326/9/10/105011.

FRI-8.121-1-AMT&ASVM-07

ABOUT INFORMED CHOICE OF MACHINERY FOR FIELD CROP GROWING

Eng. Valery Ganchev Spiridonov
Department of Agricultural Engineering,
"Angel Kanchev" University of Ruse
Phone: 082888442
E-mail: wgs@abv.bg

Abstract: *To be a choice informed potential buyer need to have enough data about process of crop growing, technological and technical characteristics of farm machinery. Usually manufactures and traders offer only some information presenting positively machines. That is why in the paper is presented list of essential data to make well-founded decision. For level of tractor-machine units a method and procedure are suggested. They are based on summarized agricultural management data from standards, handbooks, and manuals. A spreadsheet make easier the process of field capacity and fuel consumption prediction. Field efficiency values are defined by analogy or for linked processes by simulating. Procedure is included in an ergatic system. For level of tractor-machines fleet a similar approach is used. This allows complex improvement of tractors and attachments selection. Moreover decision making take into consideration crops rotation sequence, duration of plants growth phases, data for field capacity and fuel consumption, yearly equipment used and employment of workers. In such way, farmers can decide what to buy on base of enough objective information.*

Keywords: *tractors and attachments selection, ergatic system, multistage procedure*

REFERENCES

Four rules for choose of second hand tractor. (In Bulgarian: 4 правила при избор на трактор "втора ръка".) http://www.bgfermer.bg/Media/Documents/bf_agro_ocasion_br4.pdf

ASAE 497.4. Agricultural Machinery Management Data.

Beloev H. et all. 2012. Technologies for growing and harvesting of winter oilseed rape and for biodiesel producing from rape seed. (In Bulgarian: Технологии за отглеждане и прибиране на зимна маслодайна рапица и за производство на биодизел от рапични семена.)

Farm Machinery Selection. https://www.extension.iastate.edu/agdm/crops/html/a3-28.html

Handbook on tractor and machines fleet exploitation. 1969. (In Russian: Пособие по эксплуатации машинно-тракторного парка.)

How to Choose a Transmission for Your Tractor. http://www.tractor.com/features/how-to-choose-a-transmission-for-your-tractor-1598.html

Tractor selection. https://aea.uk.com/news/static/assets/downloads/tractor-selection.pdf

Vezirov Ch. et all. 2012. Classification and selection of tillage machines with passive working tools. (In Bulgarian: Класификация и избор на машини за досеитбена обработка на почвата с пасивни работни органи. *В:* Научни трудове на Русенския университет, Русе, стр. 155 – 159.)

Vezirov Ch. Resources using in agriculture. 2013 - 1. (In Bulgarian: Използване на ресурсите в земеделието,) https://e-learning.uni-ruse.bg/index.php

Vezirov Ch. et al. 2013 – 2. Determination of resources necessities in agricultural production. IN: Proceedings of the 41. International symposium on Agricultural engineering, Actual Tasks on Agricultural Engineering, Opatija. pp. 24-33.

Vezirov, Ch. et al. 2014. Approach, limits and criteria for farm machinery replacement in agriculture.. In: ISB-INMA TEH'. International Symposium: Agricultural and Mechanical Engineering, Bucurest, pp. 57-64.

Vezirov Ch. et all. 2017. Optimization of linked processes on example of wheat and maize harvest. Proceedings of University of Ruse, http://conf.uni-ruse.bg/bg/docs/cp17/1.1/1.1-4.pdf

Which tractor is better to buy. (In Russian: Какой трактор лучше купить.) http://tym-mitsubishi.ru/kakoy_traktor_luchshe

 Copyrights© http://conf.uni-ruse.bg

FRI-8.121-1-AMT&ASVM-08

ABOUT SELECTION OF TRACTOR'S TRAILER FOR LINKED PROCESSES IN FIELD HUSBANDRY

Assoc. prof. Chavdar Zlatkov Vezirov,
Department of Agricultural Engineering,
"Angel Kanchev" University of Ruse
Phone: 082888442
E-mail: vezirov@uni-ruse.bg

Assoc. prof. Atanas Zdravkov Atanasov
Department of Agricultural Engineering,
"Angel Kanchev" University of Ruse
Phone: 082888442
E-mail: aatanasov@uni-ruse.bg

Abstract: *Trailers are the main tools for transport and for application of fertilizer and manure in agriculture. The proper decision of their type, parameters and number relatively determinate field capacity and fuel expenditure not only of agricultural goods, but also efficiency of a lot linked farm processes. In the paper are discussed issues of tractor and trailer mass ratio, preconditions for tractor-trailer unit's movement, proportion of trailers' carrying and fertilizers' capacities and the combination of appropriate tractors, trailers and other farm machinery as types and number. There are shown procedures for calculation of possible and desired values of the system energetic machines and implements in agriculture. Some examples of cooperative works are presented by diagrams for changing of amounts of manure, fertilizer or other goods in trailers and applicators during the shift time. The important of process' organization is marked for direct and indirect scheme of agricultural transport performance. A necessity of complex solving of relative problems is found.*

Keywords: *tractors and trailers selection, linked processes, field husbandry*

REFERENCES

Agricultural trailers. (In Bulgarian**:** Селскостопански ремаркета.) https://dikarconsult.-com/селскостопански-ремаркета.html

ASAE 497.5. Agricultural Machinery Data Management.

Belousov S. V., A. I. Lepshina. 2014. Calculation of the basic parameters of the spreader of bulk materials. (In Russian: Расчет основных параметров разбрасывателя сыпучих материалов. Научный журнал КубГАУ, № 104).

Bennink C. 2010. How to Pick the Right Trailer for Hauling Heavy Equipment. https://www.forconstructionpros.com/trucks/trucks-accessories/article/10116804/how-to-pick-the-right-trailer-for-hauling-heavy-equipment

GOST 27021-86. Agricultural and forestry tractors. Towing classes. (In Russian: Тракторы сельскохозяйственные и лесохозяйственные. Тяговые классы.)

GOST 52746-2007. Tractor-drawn trailers and semi-trailers. General technical requirements. (In Russian: Прицепы и полуприцепы тракторные. Общие требования.)

Olhovik A. 2016. Choose of tractor trailer. (In Russian: Выбор тракторного прицепа.) http://borisov-e.info/ru/stati/2016/06/15/52250/vybor-pricepa-dlya-traktora

Ryadnov A. I. 2012. Exploitation of machine and tractor fleet. (In Russian: Ряднов А. И. Эксплуатация машинно-тракторного парка. Курс лекций.)

Savin L. et all. 2016. Agricultural tractors. (In Serbian: Пољопривредни трактори.)

Spiridonov V. 2018. About of informed choice of machinery for filed crop growing. Proceedings of University of Ruse. (In Bulgarian: За информирания избор на техника за

полевъдството.)

Vezirov Ch. 2013. Using and service of agricultural machinery. (In Bulgarian**:** Използване и обслужване на земеделската техника.) https://e-learning.uni-ruse.bg/

Vezirov Ch. et all. 2017. Optimization of linked processes on example of wheat and maize harvest. Proceedings of University of Ruse, http://conf.uni-ruse.bg/bg/docs/cp17/1.1/1.1-4.pdf

Vezirov Ch., R. Kozlev. 2006. Technological service in agriculture. Resources using in agriculture. (In Bulgarian**:** Технологично обслужване в земеделието,) https://e-learning.uni-ruse.bg/index.php

FRI-8.121-1-AMT&ASVM-09

INFLUENCE OF WATER EROSION PROCESSES AND APPLICATION OF SOIL EROSION CONTROL TECHNOLOGIES ON SEDIMENT ENRICHMENT RATIO

Gergana Slavova Kuncheva, PhD
Scentific section "Erosion of soil", Institute of Soil Science, Agrotechnologies and Plant Protection "Nikola Pushkarov" – Sofia
Phone: 082 888 417
E-mail: g1nikolova@abv.bg

Prof. Petar Dimitrov Dimitrov, DSci
Scentific section "Erosion of soil", Institute of Soil Science, Agrotechnologies and Plant Protection "Nikola Pushkarov" – Sofia
Phone: 082 888 542
E-mail: pddimitrov@dir.bg

Abstract: *Soil water erosion and loss of soil organic matter are degradation processes causing considerable damages to agricultural production, both in the world and in our country. Various agro-technical methods and technologies are used to overcome these two degradation processes. There are a number of models for predicting soil and organic matter losses when erosion processes occur. One of the methods for prediction the loss of soil organic matter under the action of water erosion is parametric method with application of parameter sediment enrichment ratio. The present study is focused on the change of the erosion sediment enrichment ratio of humus in application of various erosion control measures for maize and wheat production on inclined terrains on soil calcareus chernozem***.**

Keywords: *soil water erosion, sediment enrichment ratio, loss of soil organic matter, minimum tillage, vertical mulching, surface mulching*

REFERENCES

Anderson, D. W., de Jong, E., Verity, G. E., and Gregorich, E. G. (1986). *The effects of cultivation on the organic matter of soils of the Canadian prairies*. Trans. XIII Cong. Int. Soc. Soil Sci. Hamburg,**7,** 1344–1345.

Gregorich EG, Anderson DW. (1985).The effects of cultivation and erosion on soils of four toposequences in the Canadian prairies. Geoderma , 36:343– 54

Jong, E.R., R. G. Kachanoski, (1988). *The importance of erosion in the carbon balance of prairie*. Can. J. Soil Sci. 68: 111-119.

Lozanova, L. Rusewa, S. (2011). *Erozionni zagubi na humus pri modelno dyvduwane na Karbonaten chèrnozem.* Pochvoznanie, agrohimia I ekologia, 45, prilojenie (1-4):150-153.

 Copyrights© http://conf.uni-ruse.bg

Onchev, N., Nikolov, S. (1970). Erozionna izmivaemost na pochvenite chastici I hranitelnite veshtestva ot B I C horizont na izlujena kaneleno gorska pochva. Pochvoznanie, agrohimia I ekologia, V(6), 107-120.

Rhoton FE, Tyler DD.(1990). Erosion-induced changes in the properties of a Fragipan soil. Soil Sci Soc Am J;54:223–8.

Ruseva, S., Lozanova, L. Nekova, D, Stefanova, V. et al. (2010) *Risk ot erozia na pochvata v Bylgaria I preporyki za pochvozashtitno polzvane na zemedelskite zemi.* Chast 1, Publish Sai Set-Eko, Sofia

Starr, G. C., Lal, R. (2000). *Modeling soil carbon transported by water erosion processes*. Land degradation and development . Volume11, Issue1

FRI-8.121-1-AMT&ASVM-10

INFLUENCE OF WATER EROSION AND DIFFERENT TILLAGE SYSTEMS FOR GROWING CORN ON SLOPING AGRICULTURAL LANDS ON THE LOSS OF AVAILABLE FORMS OF PHOSPHORUS AND POTASSIUM FROM THE SOIL

Gergana Slavova Kuncheva, PhD
Scentific section "Erosion of soil", Institute of Soil Science, Agrotechnologies and Plant Protection "Nikola Pushkarov" – Sofia
Phone: 082 888 417
E-mail: g1nikolova@abv.bg

Prof. Petar Dimitrov Dimitrov, DSci
Scentific section "Erosion of soil", Institute of Soil Science, Agrotechnologies and Plant Protection "Nikola Pushkarov" – Sofia
Phone: 082 888 542
E-mail: pddimitrov@dir.bg

Correspondent member, Prof. Hristo Ivanov Beloev, DSci
"Angel Kanchev" University - Ruse
Phone: 082 888 240
E-mail: hbeloev@uni-ruse.bg

Abstract: *One of the results of the action of soil water erosion is loss of nutritients with surface water runoff and eroded soil. This, along with the other negative consequences of this degradation process, leads to a decrease in crop yields, loss of mineral fertilizers, environmental pollution. The application of different methods and technologies to limit the action of water erosion processes reduces these negative consequences. In the present study, we analyze the loss of available forms of phosphorus and potassium, using conventional and soil protection technologies for growing maize on sloping agricultural lands under the conditions of moderately eroded calcareous chernozem.*

Keywords*: water erosion, loss of available forms of phosphorus and potassium, minimum tillage, vertical mulching, surface mulching.*

REFERENCES

Bennett, Carpenter, Caraco (2001). Human Impact on Erodable Phosphorus and Eutrophication: A Global Perspective: Increasing accumulation of phosphorus in soil threatens

rivers, lakes, and coastal oceans with eutrophication. BioScience, Volume 51, Issue 3, 1 March 2001, Pages 227–234.

Bertol I, Mello, L., Guadagnin, J., Zaparolli, A., Carrafa, R. M. (2003). Nutrient losses by water erosion, Scientia Agricola, v.60, n.3, p.581-586.

Food and agriculture organization of the United Nations. (2015). Status of the World's Soil Resources. Rome. Main report

Muukkonen, P., Hartikainen, H., Alakukku, L. (2008). Effect of soil structure disturbance on erosion and phosphorus losses from Finnish clay soil, Australian Journal of Soil Research 47 (1) 33-45

Olson, K.R. and E. Nizeyimana. (1988). Effects of soil erosion on corn yields of seven Illinois soils. J. Prod. Agric. 1: 13- 19.

Panagos,P., Standardi, G., Borrelli, P., Lugato, E., Montanarella, L., Bosello, F. (2018). Cost of agricultural productivity loss due to soil erosion in the European Union: From direct cost evaluation approaches to the use of macroeconomic models. Land degradation & development, v. 29, issue 3.

Pesanti, A. R., Dionne, J. L., Genest, J. (1987). Soil and nutrient losses in surface runoff nutritient losses in surface runoff from conventional and no-till corn systems. Can. J. Soil Sci.67:835-843

Pimentel, D., Kounang., N. (1998). Ecology of Soil Erosion in Ecosystems, Ecosystems 1, issue 5: 416–426

FRI-8.121-1-AMT&ASVM-11

METHODOLOGY FOR TECHNICAL AND ECONOMIC ASSESSMENT OF SOIL PROTECTION TECHNOLOGIES FOR GROWING CROPS ON SLOPING AGRICULTURAL LANDS

Violeta Andreeva, PhD student
Department of Agricultural machinery
"Angel Kanchev" University - Ruse
E-mail: vivi308@abv.bg

Abstract: *In the Republic of Bulgaria, various soil protection technologies are used to combat water erosion, soil compaction and the loss of soil organic matter. Determination of their effectiveness requires carrying out of agro-technical, erosion, technical and techno-economic assessmenst. This study considers methodolody for such technico-economic assessment.*

Keywords: *water erosion, soil compaction, soil organic matter, methodology, techno-economic assessment.*

REFERENCES

Beloev, H.I., Dimitrov, P. D. (2008). Metodika za energetichno-agroerozionna ocenka na protivoerozionnite agrotehnicheski metodi I tehnologii. Agricultural machionery, № 3, Sofia: 54-56

Beloev, H.I., Dimitrov, P. D. (2017). Pochvozashtitni tehnologii. Publishing Center of University "A. Kunchev ", Rousse, 191 p.

Dimitrov, P. D. (1997). Metodika za izsledvane rabotata na zemedelskata tehnika za zashtita na pochvata ot erozia v Bulgaria. Agricultural machionery, № 4-5, Sofia:66-68.

 Copyrights© http://conf.uni-ruse.bg

Dimitrov, P. D., Beloev, H.I (2016) Techniko-eksploatacionni pokazateli na Sistema mashini za pochvozashtitno zemedelie. Publishing Center of University "A. Kunchev ", Rousse, 110 p.

Dimitrov, P. D., Beloev, H.I, Trifonova, T.T., Ruseva, S. S., Stoianov, K. E., Ilieva, D. K., Kuncheva, G. S. (2016). Usyvyrshenstvani pochvozashtitni technologii za minimalna I netradicionna obrabotka na pochvata pri proizvodstvo na pshenica I carevica za zurno na nakloneni tereni. Ingenering I izsledvania v zemedelieto, SSA, Sofia, 62p.

FRI-8.121-1-AMT&ASVM-12

EXPERIMENTAL RESEARCH ON THE IMPLEMENTATION OF THE OPERATING AND CONSTRUCTION PARAMETERS OF A CHAIN TRENCHERE IN WIND SOILS IN VIETNAM

Doan Dinh Diep,
Department of Construction machines
Hanoi University of Architecture, Vietnam
Tel.: +84 90 413 7638
E-mail:doandiep2364@gmail.com

Dau The Nhu
Vietnam Institute Of Agricultural Engineering And Post-Harvest Techbnology
Address: 60 TrungKinh - TrungHoa - CauGiay - Ha Noi
Tel.: +84 912293006
E-mail: dauthenhu@yahoo.com

Prof.Hristo Beloev, DTSc
Department of Agricultural Machinery
“Angel Kanchev” Univesity of Ruse
Phone: +359 82888240
E-mail: hbeloev@uni-ruse.bg

Abstract: *The main objective of this research was to investigate the relationship between parameters (traverse speed machine, tangential cutting tool speed, cutting angle and longitunal space) and the performance index of chain trencher in order to reduce the power consumption. In this article authors present experimental rerults on the effect of various parameters on operation efficiency of chain trencher and base on these result we determine suitable parameters for the given power.*

Keywords: *chain trencher, traverse speed, tangential cutting tool speed, cutting angle, longitunal space, power.*

REFERENCES

Homelite. (1979). 550 Professional chain saw operation and maintenance manual, 1st Edition, Part No. 17134-A. Charlotte, North Carolina: Homelite Division of Textron Inc.

Giezen, M. (1993). Rock properties relevant to tool wear and production of rock cutting trenchers, Memoirs of the Centre of Engineering Geology, Mining and Petroleum Engineering, 110, TU Delft, Delft, The Netherlands.

Mellor, M. (1976). Mechanics of cutting and boring, part III: Kinematics of continuous belt

machines. USA Cold Regions Research and Engineering Laboratory, CRREL Report 76-17.

Slepchenko V. A. (1998). Substantiation of selection of the excavator blade width trench beskovshovosh. Interstroymeh-98: Proceedings of the Intern. nauch. techn. Conf. Voronezh Voronezh State. ar-hit. BUD Academy, 97- 98.

Vartanov S. H. (1983). Improving the technical level of chain trenching machines, Mechanization stroitelstva, number 2, 6-8. Utinov A.B. (2007) Studying technical parameters of the soil scraper with the aim for improving performance of unbucked chain trencher.

Arkady N. Schipunov (2013) The premiseses of the improvement screw cleaneres of a soil for removing the frozen working soil of the zone executive organ unbucket chain trencheres

 Copyrights© http://conf.uni-ruse.bg

FRI-1.202-1-MR

FRI-1.202-1-MR-01

STUDY OF THE STATE OF MAINTENANCE SHOPS FOR AGRICULTURAL MACHINERY IN NORTHERN BULGARIA

Assoc. Prof. Daniel Bekana, PhD
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 082 888701
E-mail: dbekana@uni-ruse.bg

PhD Stud. Krasimir Radev,
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse
Phone: +359 082 888701
E-mail: aasenov@uni-ruse.bg

PhD Stud. Vladislav Ivanov,
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse
Phone: +359 082 888458
E-mail: knikolaev@uni-ruse.bg

Abstract*: The study of the state of the maintenance workshop for the servicing of the agricultural machinery in northern Bulgaria is necessary for solving the emerging problems with the activity of the companies in this sphere and the agricultural companies that use their services for their activities in cultivation the land. This article discusses some of the main problems that arise in maintaining machines as well as scientifically solving these problems. An analysis and conclusion of the state of the problem are given .*

Keywords: *maintenance, services workshop for agricultural machinery*

REFERENCES

Beloev H, D.Bekana. Razrabotvane na sistema za poddarjane na agrarno-industrialna technika, Selskostopanska technika, Sofia, 2009, (In Bulgarian: Разработване на система за поддържане на аграрно-индустриална техника.// Селскостопанска техника, София, 2009, брой 4).

Nikolov M, G.Tonchev, V.Stoyanov. Osnovi na poddarjaneto na mashinite. (In Bulgarian: Основи на поддържането на машините. Русе, Издателски център при Русенски университет) 2012, стр. 128, ISBN 978-954-712-550-6.

Stoyanov V, M.Nikolov, K.Conev. (In Bulgarian: Инженерни проблеми на селското стопанство.// Механизация на земеделието), 2014, брой 5, стр. 10-12, ISSN 0861-9638

Stoyanov V, M.Nikolov, D.Bekana, P.Kangalov. In Bulgarian:Проблеми на поддържането на земеделската техника в България.) Механизация на земеделието, 2015, брой 12, стр. 25-27, ISSN 0861-9638

FRI-1.202-1-MR-02

INVESTIGATING THE UNEVENNESS OF THE BRAKE SYSTEM OF CARS

Assoc. Prof. Daniel Bekana, PhD
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 082 888701
E-mail: dbekana@uni-ruse.bg

PhD Stud. Aleksandar Asenov,
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse
Phone: +359 082 888701
E-mail: aasenov@uni-ruse.bg

PhD Stud. Kaloyan Nikolaew,
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse
Phone: +359 082 888701
E-mail: knikolaev@uni-ruse.bg

***Abstract**: In this research brake efficiency and unevenness are investigated. The measurements are given in tables and are processed with softer for statistical data. Results are the results are discussed and analyzed.*

***Keywords:** brake system, brake system performance, brake system unevenness*

***JEL Codes:** L10, L11*

REFERENCES

НАРЕДБА № Н-32 от 16.12.2011 г. за периодичните прегледи за проверка на техническата изправност на пътните превозни средства

Стоянов В., М. Николов, Д. Бекана, П. Кангалов. Проблеми на поддържането на земеделската техника в България.// Механизация на земеделието, 2015, брой 12, стр. 25-27, ISSN 0861-9638

Ангелов Ю, Ивайло Борисов, Моделиране, изследване и оптимизиране на ролков стенд за измерване на спирачна ефективност, Част I. Моделиране и изследване, Научни трудове на русенския университет - 2013, том 52, серия 2

http://www.rusnauka.com/30_NIEK_2011/Matemathics/4_96647.doc.htm, В.В Быков, Тормозных качеств автомобилей категории м1,

http://www.rta.government.bg/images/Image/n_uredba/nH32.pdf

http://vesko.net/pdf/bosch/SDL_bg.pdf,

http://www.renksystems.com/test-systems-stands-rigs-automotive.php

 Copyrights© http://conf.uni-ruse.bg

FRI-1.202-1-MR-03

DETERMINATION OF THE DEGREE OF INFLUENCE OF BASIC STRUCTURAL PARAMETERS ON THE CHANGE OF THE IEC TECHNICAL AND ECONOMIC CHARACTERISTICS

As. Evgeni Enchev, PhD
Department of Agricultural machinery
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 082 888441
E-mail: eenchev@uni-ruse.bg

Assoc. Prof. Todor Delikostov, PhD
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 082 888701
E-mail: delikostov@uni-ruse.bg

PhD Stud. Veselin Rusinov,
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse
Phone: +359 082 888701
E-mail: vrusinov@uni-ruse.bg

***Abstract**: The evaluation of the hourly and specific fuel consumption and the main components of the exhaust gas composition in case of internal combustion engine failures are examined. A structural investigation scheme was developed to determine the impact of the structural parameters of the main subsystems on the change of the main components of the exhaust gases.*

***Keywords:** diagnostic, fuel consumption, compositions exhaust gas, internal combustion engine*
***JEL Codes:** L10, L11*

REFERENCES

Бехчед Б., Изследване динамиката на изменеие на структурните параметри от хранителната система върху разхода на гориво двг от земеделската и автотракторна техника, Дисертационен труд за придубване на оразователна и научна степен „доктор", Русенски университет „Ангел Кънчев", Русе, 2012

Белоев Хр., Д. Бекана. Разработване на система за поддържане на аграрно-индустриална техника.// Селскостопанска техника, София, 2009, брой 4

Двадцать наиболее вероятных причин повышенного расхода топлива, http://www.propan.ru/polezinfo/pasxod.html.)

Keeter B., D. Plucknette, The Seven Questions of Reliability Centered Maintenance, Allied Reliability, RCM- Reliability Centered Maintenance Managers Forum, 2008

FRI-1.202-1-MR-04

EFFECTIVE MAINTENANCE OF AGRICULTURAL MACHINERY

Assoc. Prof. Mitko Nikolov, PhD
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 082 888459
E-mail: mnikolov@uni-ruse.bg

Assoc. Prof. Vasil Stoynov, PhD
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 082 888480
E-mail: vas@uni-ruse.bg

Prof. Plamen Kangalov, PhD
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 082 888701
E-mail: kangalov@uni-ruse.bg

PhD Stud. Jordan Valchev,
Department of Repair, Reliability, Mechanisms, Machines, Logistics and Chemical Technologies
"Angel Kanchev" University of Ruse
Phone: +359 082 888701
E-mail: jvalchev@uni-ruse.bg

***Abstract**: Maintenance of agricultural equipment is carried out by agricultural machinery dealer . Their business interests forbid them to implement strategies that decrease maintenance such as proactive maintenance or condition based maintenance. They implement preventive and emergency maintenance. For this reason farmers incur unnecessary financial losses. The article shows the necessity and effectiveness of implementing early diagnosis in agricultural machinery maintenances.*

***Keywords:** maintenance, agricultural machinery*

***JEL Codes:** L10, L11*

REFERENCES

Белоев Хр., Д. Бекана, В. Стоянов. Промяна на концепциите за поддържането на земеделската техника. *В:* Научна конференция на Русенски университет "Ангел Кънчев", том.47, серия 1.1, Русе, Русенски университет, 2008, стр. 113–118

Белоев Хр., Д. Бекана. Разработване на система за поддържане на аграрно-индустриална техника.// Селскостопанска техника, София, 2009, брой 4

Николов М., Г. Тончев, В. Стоянов. Основи на поддържането на машините. Русе, Издателски център при Русенски университет, 2012, стр. 128, ISBN 978-954-712-550-6.

Стоянов В., М. Николов, К. Цонев. Инженерни проблеми на селското стопанство.// Механизация на земеделието, 2014, брой 5, стр. 10-12, ISSN 0861-9638.

Стоянов В., М. Николов, Д. Бекана, П. Кангалов. Проблеми на поддържането на земеделската техника в България.// Механизация на земеделието, 2015, брой 12, стр. 25-27, ISSN 0861-9638

 Copyrights© http://conf.uni-ruse.bg

FRI-9.3-1-THPE

FRI-9.3-1-THPE-01

THE POROUS FOAM DUST COLLECTOR

Prof. Alexander Genbach, DSC
Department of Heat Engineering Installations,
Almaty University of Power Engineering and Telecommunications, Kazakhstan
Tel.: +7(705)2089521
E-mail: natalja-genbach@rambler.ru

Kudaybergen Shokolakov, PhD student
Department of Heat Engineering Installations,
Almaty University of Power Engineering and Telecommunications, Kazakhstan
Tel.: +7(707)5242245
E-mail: kudash@bk.ru

Prof. Iliya K.Iliev, PhD
Department of Thermotechnics, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
Phone: +359887306898
E-mail: iki@uni-ruse.bg

Abstract: *Development of the foam capillary porous generators and dust-and-gas collectors of new type was derived from study of pure liquids boiled in the porous structures and managed by different physical fields: mass (gravity and pressure forces), capillary, vibration and wave (ultrasound). The different physical processes such as boiling, injection, suction (condensation), bubbling, foam generation, pseudo fluidization were summarized with a single criterial equation with accuracy ± 20%. The nozzle-free foam generators of air mechanical foam were designed along with its case, inlet and outlet nozzles, a set of grids and sprayer. They help to conduct foam generation processes with high effectiveness under low hydro-and-gas dynamic resistance. For further enhancement of the combined processes of gas mechanical foam and collecting micro-and-ultramicroscopic dust, a dust collector along with its case, inlet and outlet nozzles, a set of grids and sprayer was proposed, which is equipped with defoaming grid porous structure, whereas foam generating and defoaming structures are installed into in case consequently as per the dusty gas movement and sludge collector.*

Keywords: *Efficiency, Effectiveness, GPS, Seismic Protection Methods, Model porous foam, dust collector, capillary porous structures, foam generator*

JEL Codes: *Q3, Q55, Q01, O13, O33, L43, L51*

REFERENCES

Chang H. C. and L. Y. Yeo (2010), Electrokinetically driven microfluidics and nanofluidics: Cambridge University Press

Genbach A.A. (1988). Capillary porous systems in the industry: KazNIINTI. p 295.

Sant G., D. Bentz, J. Weiss (2011), Capillary porosity depercolation in-based materials: Measurement techniques and factors which influence their interpretation, Cement and Concrete Research 41 854–864

FRI-9.3-1-THPE-02

APPLICATION OF THE STIRLING ENGINE FOR CREATING AUTONOMOUS SOURCES OF HEAT AND ELECTRICAL SUPPLY

Assoc. Prof. Musabekov Rasulbek, PhD
Almaty University of Power and Engineering, Almaty, Kazahstan
Phone: +77076006419
E-mail: zh.baitanova@aues.kz

Adilbekov Askar, PhD studient
Almaty University of Power and Engineering, Almaty, Kazahstan
Phone: +77085227169
E-mail: askar_ad@mail.ru

Abstract: *To convert thermal energy into electrical energy, it is proposed to use a Stirling external combustion engine. A comparison of the structures of the energy balance, the fundamental differences between the Stirling engine and the internal combustion engine are given. Advantages of the Free-piston Stirling engine in relation to other structures are described.*

Keywords: *Free piston engine;Stirling's engine; Thermodynamic cycle; Thermal energy,*

REFERENCES

Walker G. Machines operating on the Stirling cycle. M., Energy, 1978.

Walker G. Stirling Engine. B.V. Sutugina, N.V. Sutugina.- M: Mashinostroenie, 1985. - 408 p.

Reader G. Hooper C. Stirling Engines. M., Mir, 1986. - 464 p.

Shustrov F.A. Ivanov D.A. Tatarnikov A.P. Evaluation of the effectiveness of the use of free piston heat engines in the composition of transport and stationary power plants. Moscow State Engineering University. International Journal of Applied and Fundamental Research. M., 2015. - № 10.

Kogan A.Ya. Petrov Yu.V. Thermodynamic analysis of Stirling engines. Engine building. 1985. -№ 10.

Musabekov R.A., Laptev V.N., Dzhamankulova N.O., Akhmetgaliev R.S., Rasmukhametova A.S., Musabekov N.R., Adilbekov M.Zh. Micro-Thermal Power Plant as an Autonomous Source of Heat and Power Supply for remote consumers. Bulletin of Automation, 2015. - №4 (50). -FROM. 29-32.

 Copyrights© http://conf.uni-ruse.bg

FRI-9.3-1-THPE-03

LIMIT THERMAL FLUXES AND THERMAL STRESSES IN POROUS COATINGS OF A HEAT-ENERGY INSTALLATION

Prof. Alexander A. Genbach, DSc
Department of of Heat and Power Installations,
AUPET, Republic of Kazakhstan
Tel.: +7(705)2089521
E-mail: natalja-genbach@rambler.ru

David Yu. Bondarcev, PhD Student
Department of of Heat and Power Installations,
AUPET, Republic of Kazakhstan
Tel.: +7(701)5323661
E-mail: d.bondartsev@saem.kz

Prof. Iliya K. Iliev, PhD
Department of Heat Engineering, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
Phone: +359 887306898
E-mail: iki@uni-ruse.bg

Abstract: *The methods and devices for power plants and the creation of scientific methods have been developed. Investigations of the limiting heat fluxes in metallic and poorly heat-conducting porous structures operating under the combined action of gravitational and capillary forces and cooling various devices of thermal power plants are carried out. Based on the solution of the problem of thermoelasticity and experimental data, the mechanism of destruction of metal steam generating surfaces and poorly heat-conducting coatings of small porosity made of natural mineral media (granite) is described. On the basis of the analogy of the phenomena, the dependences of the heat fluxes on the time of their action and the depth of penetration of temperature disturbances are revealed. Capillary-porous systems have high intensity, high heat transfer ability, reliability, compactness. The results of calculations and experiments showed that the maximum thickness of the particles that break off under the action of compression forces for coatings from granite is (0,25÷0,3)x10-2 m. Sections of compression curves that determine the separation of particles with dimensions greater than 0,3x10-2 m for large heat fluxes and short delivery times are screened by the melting curve, and in the case of small heat fluxes and significant time intervals, the expansion curve. The research is aimed at the creation of porous cooling systems from well- and poorly-heat-conducting materials.*

Keywords: *heat exchange, porous structure, voltage, cooling system, thermal power plants.*

JEL Codes: *Q3, Q55, Q01, O13, O33, L43, L51*

REFERENCES

Genbach A.N., Genbach A.A. (1988), Kapillyarno-poristyye sistemy v promyshlennosti // Dep. ruk. VINITI, №8 (202). S. 181. – (KazNIINTI. 1987. №2105).

Genbach A.A. (1989), Dvukhfaznyye kipyashchiye potoki v poristykh strukturakh // Dep. ruk. VINITI, №12 (218). S.178. (KazNIINTI)

Genbach A.A., Gnatchenko Yu.A. (2007), Sistema okhlazhdeniya teplonagruzhennogo elementa detonatsionnogo gorelochnogo ustroystva – kamery sgoraniya, diffuzora i konfuzora // Vestnik KazNTU. – Almaty, №4, (61), iyul'. –S. 87-91.

Genbach A.A., Danil'chenko I. (2012), Poristyy parookhladitel' parovykh kotlov // Promyshlennost' Kazakhstana, № 1 (70), s. 72 – 75.

Genbach A.A., Olzhabayeva K.S. (2012), Vizualizatsiya termicheskogo vozdeystviya na poristoy material v TEU ES // Vestnik Natsional'noy inzhenernoy akademii RK, № 3 (45), s. 63 – 67.

Genbach A.A., Islamov F.A. (2013), Modelirovaniye protsessa zadevaniya rotora turbiny // Vestnik KazNTU, № 6 (100), s. 235 – 240.

Genbach A.A., Genbach N.A. (2011), Issledovaniye kapillyarno-poristykh sistem v teplovykh energeticheskikh ustanovkakh elektrostantsiy // Vestnik AUES, №2 (13). – S. 57-62

Genbach A.A., Bondartsev D.Yu. (2017), Razrabotka turbinnoĭ tekhniki elektrostantsiĭ i nauchnaya metodika ikh sozdaniya. Vestnik NAN RK, №5, S. 45-54.

Polyayev V.M., Genbach A.A. (1990) Skorost' rosta parovykh puzyrey v poristykh strukturakh // Izvestiya vuzov. Mashinostroyeniye, №10 – S. 56-61.

Polyayev V.M., Genbach A.N., Genbach A.A. Predel'nyye sostoyaniya poverkhnosti pri termicheskom vozdeystvii // Teplofizika vysokikh temperatur. – 1991. T.29, № 5. – S. 923 - 934.Polyaev V., Genbach A. (1991) *Control of Heat Transfer in a porous cooling System* // Second world conference of experimental heat transfer, fluid mechanics and thermodynamics, Dubrovnik, Yugoslavia, 23 – 28, June. – p. 639 – 644.

Polyayev V.M., Genbach A.A. Oblasti primeneniya poristoy sistemy // Izvestiya vuzov. Energetika. – 1991. № 12. – s. 97 – 101.

Polyayev V.M., Genbach A.A. (1992), Upravleniye teploobmenov v poristoy strukture // Izvestiya Rossiyskoy akademii nauk. Energetika i transport, T 38. №6 – s 105-110.

 Copyrights© http://conf.uni-ruse.bg

FRI-9.3-1-THPE-04

DESIGN OF FUZZY SELF-TUNING PID CONTROLLER FOR ELECTROHYDRAULIC SYSTEM

Assoc. Prof. Krasimir Ormandzhiev, PhD
Department of Power Engineering,
Faculty of Mechanical and Precision Engineering,
Technical University of Gabrovo, Bulgaria
E-mail: khormandzhiev@gmail.com

Abstract: *The article examines the work of electrohydraulic system with rotary actuator. Developed a mathematical model describing the dynamics of the processes. A fuzzy self-adjusting PID controller with variable coefficients is synthesized. The transient processes in the system are compared to processes where the classical PID controller. The results are presented in graphical form.*

Keywords: *Electrohydraulic System, Fuzzy Control, Mathematical Model, PID Controller, Rotary Actuator, Pressure Pipeline..*

JEL Codes: *L10, L11*

REFERENCES

AL-Assady A., A. Hassan, M. Talib, J. AL-Khafaji, (2013). Design and Analysis of Electro-Hydraulic Servo System for Speed Control of Hydraulic Motor, Jurnal of Engineering, Nomber 5, Volume 19, May, Baghdad.

Basmenj A., A. Sakhavati, Jafarghafuri, (2014), PID Controller Design for Position Control of Electrohydraulic Actuators Using Imperialist Competitive Algorithm, Indian J. Sci. Res., 1(1), pp. 775-779.

Detiček, E. Župer, (2011), U An Intelligent Electro-Hydraulic Servo Drive, Journal lf Mechanical Engineering 57 Positioning, Slovenia.

Harris C., C. Moore and M. Brown, (1994), Intelligent control - Aspects of Fuzzy Logic and Neural Nets, World Scientific, London.

Hassan J., Saif Yousif Ibrahim, (2009), An Experimental Study Into The Effect of Temperature and Pressure on The Hydraulic System, Eng. & Tech. Jurnal, Vol.27, No.14, Mechanical Engineering Department, University of Technology – Baghdad.

Jovanovic M. (2012), Nonlinear Control of an Electrohydraulic Velocity Servosystem, Proceedings of the American Control Conference Anchorage, AK May 8-10.

Mamdani E., Application of fuzzy algorithms for control of simple dynamic plant, Proceedings IEEE, 121 , N0.12, 1974.

Ormandzhiev K. (2006), Transient Processes in Electro-Hydraulic Follow-up System with Long Pressure Pipelines, 30th SEM HIPNEF 2006, May 24 - 26, Vrnjacka Banja, , pp. 123 – 130.

Petrov M., I. Ganchev, A. Taneva. Fuzzy PID Control of Nonlinear Plants, Proceedings of the IEEE International Symposium on "Intelligent Systems", Varna, Bulgaria, 10 - 13 September, 2002, IEEE Catalog Number 02EX499, ISBN 0-7803-7601-3, Vol. 1, pp. 30 - 35.

Shafiabadi M., M. Jahanshahi, A. Bidaki, (2012), Feedback Error Learning using Laguerre-based Controller to Control the Velocity of an Electro Hydraulic Servo System, Australian Journal of Basic and Applied Sciences, 6(10), pp. 222-230.

Xu M., B. Jin, G. Chen, J. Ni, (2013), Speed-Control of Energy Regulation Based Varible-Speed Electrohydraulic Drive, Strojniski vestnik – Journal of Mechanical Enginneering 59(2013)7-8, pp. 433-442.

FRI-9.3-1-THPE-05

NUMERICAL MODELING OF THE HEAT TRANSFER PROCESS AT MOVEMENT OF AIR IN TUBE

Assist. Zhivko Kolev, PhD
Department of Thermotechnics, Hydraulics and Ecology, "Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 304
E-mail: zkolev@uni-ruse.bg

Assoc. Prof. Plamen Mushakov, PhD
Department of Thermotechnics, Hydraulics and Ecology, "Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 304
E-mail: pgm@uni-ruse.bg

Assist. Pencho Zlatev, PhD
Department of Thermotechnics, Hydraulics and Ecology, "Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 303
E-mail: pzlatev@uni-ruse.bg

Abstract: *In this paper, numerical modeling of heat transfer process by forced convection of autmosferic air in tube, has been presented. The process of heat transfer between the flowing fluid and the environment has been modeled. For this purpose, computer simulations have been realized using ABAQUS software. Certain peculiaritis have been analyzed. The initial conditions have been determined. Different variants to perform numerical modeling of heat transfer processes in order to obtain the temperature field in the fluid and in the tube wall, have been discussed. The presented study is an initial stage of a summarized investigation of the possibilities of numerical modeling of different heat transfer processes, realized in heat exchangers.*

Keywords: *Numerical modeling, Computer simulation, Heat transfer processes, Heat exchangers*

REFERENCES

Bratianu, C., & Negreanu, G. (1987). Finite-element numerical applications to nonlinear thermal fields generated in power installations. Politechnical University of Bucharest, Bucharest, Romania. Energetica, 35 (3), pp.118-125.

Dhotre, M., & Joshi, J., (2004). CFD Simulation of Heat Transfer in Turbulent Pipe Flow. Institute of Chemical Technology, University of Mumbai, India. URL: https://pubs.acs.org/doi/abs/10.1021/ie0342311.

Han-Taw Chen, Yu-Jie Chiu, Chein-Shan Liu, Jiang-Ren Chang, (2017). Numerical and experimental study of natural convection heat transfer characteristics for vertical annular finned tube heat exchanger. Department of Mechanical Engineering, National Cheng Kung University, Taiwan; Center for Numerical Simulation Software in Engineering and Sciences, College of Mechanics and Materials, Hohai University, Nanjing, China; Department of Systems Engineering and Naval Architecture, National Taiwan Ocean University, Taiwan. International Journal of Heat and Mass Transfer, 109, pp. 378–392.

Majewski, K., & Gradziel, S., (2016). CFD Simulation of Heat Transfer in Internally Helically Ribbed Tubes. Cracow University of Technology, Cracow, Poland. Chemical and Process Engineering, 37 (2), pp.251-260.

Osley, W., Droegemueller, P., Ellerby, P., (2013). CFD Investigation of Heat Transfer and Flow Patterns in Tube Side Laminar Flow and the Potential for Enhancement. Cal Gavin Limited, Minerva Mill Innovation Center, Warwickshire, UK. Chemical Engineering, 35, pp.997-1002.

 Copyrights© http://conf.uni-ruse.bg

FRI-9.3-1-THPE-06

ANALITICAL INVESTIGATION ON THE OPERATIONAL CHARACTERISTICS OF A HEAT EXCHANGER WITH THERMOSYPHONS

Assoc. Prof. Veselka Kamburova, PhD
Department of Food Technologies and Biotechnologies, Razgrad Branch,
"Angel Kanchev" University of Ruse
Phone: 02 988 00 52
E-mail: vkamburova@uni-ruse.bg

Svetla Baeva, PhD studient
Department of Thermotechnics, Hydraulics and Ecology, Agrarian and Industrial Faculty
"Angel Kanchev" University of Ruse
E-mail: sbaeva@abv.bg

Abstract: *In the recent years, the interest towards the application of two-phase thermosyphons as an element of heat recovery systems has significantly increased. The application of thermosyphons is steadily gaining popularity in a wide range of industries and energy solutions. In the present study, the construction of a heat exchanger utilizing the heat of the waste gases from a gas boiler is presented. Utilised heat is used to heat water. An analytical model of the thermal and hydrodynamic processes taking place in a thermosyphone is made. The model is multiplied for the represented heat exchanger.*

Keywords: *Heat exchanger,Thermosyphon, Thermal and hydrodynamic processes, Waste heat,*

JEL Codes: *L10, L11*

REFERENCES

Zare Aliabadi, H., Ateshi, H., Noei, S.H, Khoram, M., An Experimental and Theoretical Investigation on Thermal Performance of a Gas-Liquid Thermosyphon Heat Pipe Heat Exchanger in a Semi-Industrial Plant, Iranian Journal of Chemical Engineering, Vol. 6, 3 (2009), pp. 13-25

Vasiliev, L. L., Heat Pipes in Modern Heat Exchangers", Applied Thermal Engineering, 25, (2005), p. 1.

Azad, E., and Geoola, F., A Design Procedure for Gravity-assisted Heat Pipe Heat Exchanger, Heat Recovery Sysstem Elsevier Science, 101 N2, 1984, pp 101-111.

Zhonglliang, L., Zengyi, W., and Chongfang, M., Experimental Study on Heat Transfer Characteristics of Heat Pipe Heat Exchanger with Latent Heat Storage. Part II: Simultaneous Charging and Discharging Modes", Energy Conversion and Management, (2005) pp 967-990.

Shah, R.K., and Giovannelli, A.D., Heat pipe heat exchanger design theory, Hemisphere, Washington D.C., USA, 1987.

Rohsenow, W. M., Handbook of Heat Transfer Applications, McGraw-Hill, New York, USA, 1985.

Pioro, I.P., V.A. Antonenko, P.S.Pioro, Effective heat exchangers with two phases thermosiphons (in Russian) –Kiev, Poligrafkniga, Ukraine, 1991

Iliev I., Uzuneanu K., Kamburova V., Voutev V. Study of integral characteristics andefficiecy of a heat exchanger of thermosiphon type with finned tubes// Thermal Science, 2016, No 5, vol.20, pp. 1227-1235, ISSN 0354-9836. (Impact factor: 1.093 /2016, ISI)

Kamburova V, A. Ahmedov, I. K. Iliev, I. Beloev, M. Laković-Paunoviće. Numerical modeling of the operation of a two-phase thermosyphon with heat carrier desalinated water. IN: 18th Symposium on Thermal Science and Engineering of Serbia, Sokobanja, Serbia, October 17–20, 2017, University of Niš, Faculty of Mechanical Engineering in Niš, 2017, pp. 609-622, ISBN

978-86-6055-098-1.

 Copyrights© http://conf.uni-ruse.bg

FRI-9.3-1-THPE-07

RESEARCH FOR THE POSSIBILITIES AND AREAS FOR THE APPLICATION OF HYDROSTATIC TRANSMISSIONS FOR THE TRANSMISSION OF ENERGY FROM THE PROPELLER TO THE ELECTRO GENERATOR OF THE WIND TURBINES

Prof. Ilcho Ivanov Angelov, PhD
Department of Hydroaerodynamics & Hydraulic machines,
Technical University of Sofia
Phone: +359 887 857820
E-mail: ilangel@tu-sofia.bg

Ass. mag. eng. Petko Ivanov Kyorgogov
Department of Technical and Natural Sciences,
Technical University of Sofia
Phone: + 359 884 879887
E-mail: petkokyorgogov@abv.bg

Abstract: *The growing need for electricity and the norms requiring this energy to be from renewable sources are at the base of the rapid development of wind generators facilities. However, one of the main problems remains the transmission and transformation of energy from the propeller to the electro generator. This paper presents research work in to for the areas of an application of the different hydrostatics transmissions depending on the wind power. The main results here are achieved by the deep analysis for the together work of the different devices like propeller, hydrostatic transmission and the electro generator. Especially attention are given here of the research characteristics which are connected with an applications and using of the types of the pumps and hydromotors which will work under high efficiency by the transport the energy in different fields depending on the rotational speed and the size of wind power.*

Keywords: *wind power, wind turbines, hydrostatic transmissions, electro generators*

REFERENCES

Angelov, I., Kyorgogov P. (2013). Investigation of operating models of hydrostatic transmission for wind turbine at various loads of motors. Paper presented at the Scince Conference of Ruse University, (2013), Ruse.

Angelov I., Kyorgogov P. (2012). Algorithm for the Study of hydrostatic transmission for wind turbine. Mechanical Sciences, Sliven - 2012;

Inderelst, M., (2013). Efficiency improvements in mobile hydraulic systems. Published by the deutsche nationalbibliothek (2013), Aachen, Germany.

Ragheb, A., Ragheb, M., (2011). Wind turbine gearbox technologies. Paper presented at the Fundamental and advanced in wind power (2011), Copyright InTech.

Rampen, W., (2011). High performance hydrostatic power transmission for wind turbine. Aretemis Itelligent power ltd.

Scaare, B., B. Hoernsten, F.G.Nielsen; (2011). Energy Considerations for Wind Turbines with Hydraulic Transmission Systems. EWEA OFFSHORE 2011, Amsterdam, Netherlands

Schmitz, J.; Vatheuer, N.; Murrenhoff, H.; (2011). Hydrostatic drive train in Wind Energy Plants, EWEA 2011, Brussels, March 14-17, 2011, Brussels, Belgium, pp.20-23.

Thommsen, E., (2012). Nacelle integrated variable hydraulic transmission. Wind Energy (2012), Husum, Germany.

FRI-9.3-1-THPE-08

INVESTIGATION OF ROBUST STABILITY OF ELECTRO-HYDRAULIC CONTROL MODULE FOR HYDRAULIC STEERING SYSTEM WITH LINEAR-QUADRATIC REGULATOR

Assist. Prof. Alexander Mitov, PhD
Department of Hydroaerodynamics and Hydraulic Machines,
Technical University of Sofia, Sofia
Tel.: +359886208937
E-mail: a_mitov@tu-sofia.bg

Assoc. Prof. Tsonyo Slavov, PhD
Department of Systems and Control,
Technical University of Sofia, Sofia
Phone: +359887988160
E-mail: ts_slavov@tu-sofia.bg

Assist. Prof. Jordan Kralev, PhD
Department of Systems and Control,
Technical University of Sofia, Sofia
Phone: +359882093195
E-mail: jkralev@tu-sofia.bg

Prof. Ilcho Angelov, PhD
Department of Hydroaerodynamics and Hydraulic Machines,
Technical University of Sofia, Sofia
Tel.: +359887857820
E-mail: ilangel@tu-sofia.bg

Abstract: *The paper investigates the robust stability of an embedded robust controller for optimal reference tracking of electrohydraulic steering systems. The regulator is sinthesized on the base of multivariable system identification and quadratic cost function. A Kalman filtering algorithm is used for the state estimation. In order to describe the system in robust control framework we introduce a small uncertain element into the model from identification in the form of input multiplicative uncertainty. Then the system is represented as a* $M-\Delta$ *interconnection which allows to calculate the structured singular value* (μ) *of the closed loop system with the linear quadratic regulator. This singular value is a measure of the loop stability in presence of bounded variations in the model characteristics in frequency domain or in its parameters. Therefore the present paper proves that the closed loop system keeps its stability in presence of unmodelled dynamic effects caused for example by the inherent nonlinearities in the hydraulic steering units.*

Keywords: *Multivariable system identification, linear-quadratic regulator* (*LQR*)*, Kalman filter, Robust stability, steering system.*

REFERENCES

Danfoss, (2016). OSPE Steering Valve. Technical Information, 11068682, November.

Goodwin G. C., Graebe S.F., & Salgado M.E. (2001). Control System Design. ISBN 0-13-958653-9, Prentice-Hall, Inc., Upper Saddle River, NJ.

Johnson, M., & Moradi, M. (2005). PID Control: New Identification and Design Methods. ISBN-13:978-1-85233-702-5, Springer.

Ljung L. (1999). System Identification: Theory for the User. ISBN 978-0136566953, 2nd edition, Prentice-Hall, Inc., Englewood Cliffs, NJ.

 Copyrights© http://conf.uni-ruse.bg

Petkov P., Slavov T., & Kralev J. (2018). Design of Embedded Robust Control Systems using MATLAB®/Simulink®. ISBN 978-1-78561-3330-2, IET Control, Robotics and Sensor Series 113.

Weber, J., Neubert, Th., & Lautner, E. (2016). Arbeitsblätter zur Vorlesung: Steurungen, Softwareentwicklung und Sicherheit in mobile Anwendungen. Institut für Fluidtechnik (IFD), TU-Dresden.

Weber, J. (2017). Arbeitsblätter zur Vorlesung: Mobilhydraulik. Institut für Fluidtechnik (IFD), TU-Dresden.

FRI-9.3-1-THPE-09

CFD ANALYSIS FOR CAVITATION FLOW THROUGH A CONVERGING-DIVERGING NOZZLE

Eng. Georgi Panchev
Department of Power Engineering,
Technical University of Gabrovo, Bulgaria
Tel.: +359 (0)66 827 393
E-mail: gpanchev@tugab.bg

Assoc. Prof. Hristo Hristov, PhD
Department of Power Engineering,
Technical University of Gabrovo, Bulgaria
Tel.: +359 (0)66 827 393
E-mail: christo@tugab.bg

Abstract: *Converging-diverging nozzles (Venturi tubes) play a very important role in various engineering fields. Due to its specific geometric dimensions, this CD is used to determine and visualize the conditions under which the cavitation phenomenon arises. In this paper, a numerical CFD (Computational Fluid Dynamics) method is used to simulate the internal flow field passing through the CD nozzle and the conditions in which cavitation occurs, the working fluid being a hydraulic oil. The ultimate volume method is used to convert differential equations from fluid mechanics into algebraic equations using the first order sampling approach. To solve the pair of pressure-velocity dispersion equations, a typical SIMPLE algorithm was used. In the present work the conditions in which cavitation occurs in a converging-diverging nozzle are discontinued. Results can be used to prevent this process from being triggered in various hydraulic machines.*

Keywords: *Cavitation, CFD, GPS, Venturi tubes.*

JEL Codes: *L10, L11*

REFERENCES

ANSYS Fluent Theory Guide, November 2013

Antonov, I., (2016). Prilojna mehanika na fluidite (***Оригинално заглавие:*** Антонов И., 2016, Приложна механика на флуидите, София).

Brenen, C. E., (1995). Cavitation and Bubble Dynamics. Oxford University Press.

Franc, J. P., Michel, J. M., (2004). Fundamentals of Cavitation. Kluwer Academic Publishers.

Huang X., Li G., Wang M. (2009) Cfd Simulation To The Flow Field Of Venturi Injector. In: Li D., Zhao C. (eds) Computer and Computing Technologies in Agriculture II, Volume 2.

CCTA 2008. IFIP Advances in Information and Communication Technology, vol 294. Springer, Boston, MA.

Kumar J., Singh J., Kansal H., Narula G., Singh P., (2014) CFD Analysis of Flow Through Venturi, International Journal of Research in Mechanical Engineering & Technology, 214-2017.

Zwart, P. J., Gerber, A. G., and Belamri, T., (2004) A two-phase flow model for predicting cavitation dynamics. ICMF International Conference on Multiph

FRI-9.3-1-THPE-10

RESEARCH REGARDING THE PYROLYSIS OF POULTRY WASTE AS AN ALTERNATIVE FOR ITS USE IN ENERGY PRODUCTION

Prof. Gheorghe Lăzăroiu, PhD
Department of Energy Production and Use
University Politehnica of Bucharest, Romania
Tel.: +40722808709
E-mail: glazaroiu@yahoo.com

Prof. Lucian Mihăescu, PhD
Department of Technical Thermodynamics, Engines, Thermal and Refrigeration
University Politehnica of Bucharest, Romania
Phone: +40214029158
E-mail: lmihaescu@caz.mecen.pub.ro

Prof. Ionel Pîşă, PhD
Department of Technical Thermodynamics, Engines, Thermal and Refrigeration
University Politehnica of Bucharest, Romania
Tel.: +40214029158
E-mail: ionel.pisa@upb.ro

Eng. Senior Researcher Viorel Berbece
Department of Technical Thermodynamics, Engines, Thermal and Refrigeration
University Politehnica of Bucharest, Romania
Tel.: +40214029158
E-mail: vberbece@gmail.com

Prof. Gabriel Paul Negreanu, PhD
Department of Technical Thermodynamics, Engines, Thermal and Refrigeration
University Politehnica of Bucharest, Romania
Tel.: +40214029158
E-mail: gabriel.negreanu@upb.ro

Abstract: *In the actual ecological conception, the poultry waste can be stored at carefully chosen distances so that the bad odors do not disturb human communities or commercial societies. From these storing facilities, the farmers can use the manure as fertilizer, especially for vegetables.*

Through surface water, but also by phreatic water from the soil, the pollution can be significant. In the paper the qualities of the chicken manure, in the form of elemental analysis and energy characteristics are presented. On the basis of these data, the possibility of its energy use emerges, either by pyrolysis or by direct burning.

 Copyrights© http://conf.uni-ruse.bg

From the point of view of combustion, the main impediments are the very high moisture and the low heat value. The data resulted from the research have application in taking the decision regarding the ecological possibility of combustion of the poultry wastedeposits, including a positive energy effect.

Keywords: *chicken waste, two stage pyrolysis, energy balance.*

JEL Codes: *Q2, Q4, Q5*

REFERENCES

Felipe Santos Dalolio et al.,"Poultry as biomass energy: A review and future perspectives", Renewable and Sustainable Energy Reviews 76 (2017) 041-949

Edwards DR, Daniel TC, „Environmental impacts of-farm poultry waste disposal – a review", Biores Technol1992;41:9-33, http:/dx.doi.org/10.1016/0960-8524(92)90094-E

Garces A, Afonso SMS, Chilundo A, Jairoce CTS, „Evalution of different litter materials for broiler production in a hot and humid environment: 1. Litter characteristic and quality. J Appl poult Res 2013;22:168-76.http:/dx.doi.org/10.3382/japr.2012-00547

Haapapuro ER, Barnard ND, Simon M. „Review: animal waste use as livestock feed: Dangerous to human health. Prev Med 1997;26:599-602. http://dx.doiorg/10.1006/pmed.-1997.0220.

Ungureanu, C., Pănoiu, N., Zubcu, V., Ionel, I.,"Combustibili, Instalaţii de ardere, Cazane",ed. Politehnica timişoara, 1998, ISBN 973-9389-21-0, 460 pag.

Neaga, C., Epure, Al., „Calculul termic al generatoarelor de abur, Îndrumar", ed. Tehnică Bucureşti, 1988, 314 pag.

Pîşă I., "Generatoare de abur", ed. Politehnica Press, Bucureşti 2013, ISBN 978-606-515-438-7, 430 pag.

Mihăescu, L., Prisecaru, T., Oprea, I., „Cazane şi turbine", ed. Perfect, Bucureşti 2002, ISBN 973-85069-8-0, 190

FRI-9.3-1-THPE-11

PARTICULATE MATTER MEASUREMENTS IN INDOOR AIR

Assist. Prof. Tsvetelina Petrova, PhD
College of Energy and Electronics (CEE)
Department of Energy and Mechanical Engineering,
Technical University of Sofia, Sofia, Bulgaria
Tel.: 02/965 3643
E-mail: tzvetelina.petrova@tu-sofia.bg

Ognyan Sandov
College of Energy and Electronics (CEE)
Department of Energy and Mechanical Engineering,
Technical University of Sofia, Sofia, Bulgaria
Tel.: 02/965 3643
E-mail: o.sandov@tu-sofia.bg

Assoc. Prof. Iliyana Naydenova, PhD
College of Energy and Electronics (CEE)
Department of Energy and Mechanical Engineering

Technical University of Sofia, Sofia, Bulgaria
Tel.: 02/965 3643
E-mail: inaydenova@tu-sofia.bg

Assoc. Prof. Rositsa Velichkova, PhD
Department of Hydroaerodynamics and Hydraulic Machines,
Technical University of Sofia, Sofia, Bulgaria
Tel.: +359895586069
E-mail: rostisavelichkova@abv.bg

Assist. Prof. Iskra Simova, MSc
Department of Hydroaerodynamics and Hydraulic Machines,
Technical University of Sofia, Sofia, Bulgaria
Tel.: 02/ 965 3305
E-mail: iskrasimova@gmail.com

Abstract: *The paper presents results concerning indoor air measurements of particulate matter with mean diameters 10 μm and 2.5 μm. The tests are performed with experimental module for particulate matter emission control based on optical principle. The work compares the data from measurements which are conducted with different types biofuels burned out at the same conditions.*

Keywords: *Particulate matter, Biofuels, Combustion*

JEL Codes: *L10, L11*

REFERENCES

Bo, M., Salizzoni, P., Clerico, M., & Buccolieri, R. (2017). Assessment of Indoor-Outdoor Particulate Matter Air Pollution: A Review. Atmosphere, 8 (8), 136; doi:10.3390/atmos8080136. URL: https://www.mdpi.com/2073-4433/8/8/136/htm

Genikomakis, K., Galatoulas, N., Dallas, P., Ibarra, L., Margaritis, D., & Ioakimidis, Ch. (2018). Development and On-Field Testing of Low-Cost Portable System for Monitoring PM2.5 Concentrations. Sensors, 18 (4), 1056, doi:10.3390/s18041056. URL: https://www.mdpi.com/-1424-8220/18/4/1056/htm

Petrova, Ts., Naydenova, I., Sandov, O., Velichkova, R., & Simova, I. (2018). Constructing and testing of experimental module for particulate matter emission control. Proceeding of XXIII Scientific Conference with International Participation FPEPM 2018, 17th-20th September, 2018, Sozopol, Bulgaria, ISSN 1314-5371, 164-171

Rovelli, S., Cattaneo, A., Nuzzi, C., Spinazze, A., Piazza, S., Carrer, P., & Cavallo, D. (2014). Airborne Particulate Matter in School Classrooms of Northern Italy. International Journal of Environmental Research and Public Health, 11(2), 1398-1421; doi:10.3390/ijerph110201398. URL: https://www.mdpi.com/1660-4601/11/2/1398/htm

Government of Canada (2012). Guidance for fine particulate matter (PM2.5) in residential indoor air. URL: https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/healthy-living-vie-saine/fine-particulate-particule-fine/alt/fine-particulate-particule-fine-eng.pdf

 Copyrights© http://conf.uni-ruse.bg

FRI-9.3-1-THPE-12

PERFORMANCE ASSESSMENT OF SORPTION REGENERATOR FOR DEHUMIDIFICATION IN AIR HANDLING UNIT

MSc. Eng. Yordan Penev
Department of Heat Engineering, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
Phone: +359 898 307 371
E-mail: ypenev@uni-ruse.bg

MSc Eng. Pencho Zlatev, PhD
Department of Heat Engineering, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
Phone: +359 882 383 200
E-mail:pzlatev@uni-ruse.bg

Assoc. Prof. Valentin Bobilov, PhD
Department of Heat Engineering, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
Phone: +359 895 777 216
E-mail: bobilov@uni-ruse.bg

Abstract: *Nowadays the studying various solutions to reduce energy consumption has a great importance. Air to air heat exchangers have the potential to increase the energy savings. In particular, interest in desiccant wheels is increasing due to their high effectiveness and possibiliety to dehumidify. This paper reviews the potential to transfer of heat and moisture in regenerative heat exchangers as a part of air conditioning system in pharmaceutical industry. A comparission of performance between the different types of regenarators is made under different operating parameters.*

Keywords: *Air conditioning, Dehumidification, Desiccant wheel, Efficiency, Energy consumption, Heat and mass transfer, Regenerative heat exchangers.*

REFERENCES

Angrisani, G., Minichiello, F., Roselli, C., Sasso, M., (2012). Experimental analysis on the dehumidification and thermal performance of a desiccant wheel. *Applied Energy*, 92, 563-572.

Antonellis, S., Joppolo, C. & Molinaroli, L., (2010). Simulation, performance analysis and optimization of desiccant wheels. *Energy and Buildings*, 42, 1386-1393.

Klein, H., (1988). Heat and Mass Transfer in Regenerative Enthalpy Exchangers. *Uuniversity of Wisconsin-Madison.*

Rafique, M., (2016). Heat and Mass Transfer between Humid Air and Desiccant Channels — A Theoretical Investigation. *Modern Environmental Science and Engineering,* Volume 2, №1, 44-50.

Rafique, M., Gandhidasan, P., Bahaidarah, H., (2016). Liquid desiccant materials and dehumidifiers – A review. *Renewable and Sustainable Energy Reviews,* 56, 179-195.

FRI-9.3-1-THPE-13

ANALYTICAL PRESENTATION OF THE DIMENSIONLESS CHARACTERISTICS OF CENTRIFUGAL FANS

Prof. Gencho Popov, PhD
Department of Heat, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
E-mail: gspopov@uni-ruse.bg

Assoc. Prof. Kliment Klimentov, PhD
Department of Heat, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
E-mail: kklimentov@uni-ruse.bg

Senior Assistent. Boris Kostov, PhD
Department of Heat, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
E-mail: bkostov@uni-ruse.bg

Engineer Alexandar Bozhinov, PhD Student
Department of Heat, Hydraulics and Ecology,
"Angel Kanchev" Univesity of Ruse
E-mail: a.bozhinov90@gmail.com

Abstract: *This work consists of a good number of analytically presented characteristics of centrifugal fans. The found analytical equations, apllied together with the well-known methods of similarity, have been used to determinate the fan's main geometric sizes. The proposed method ensure a quick and automated way for the determination of these sizes, as well as provides an opportunity for its predictive characteristics, in case the specific speed of rotation is preliminary known, to be found.*

Keywords: *Centrifugal Fan; Dimensionless Characteristic; Specific speed.*

REFERENCES

Bruk, A. D., Matikashvili, T. I., Nevelson, M. I., Raer, G. A., Solomahova, T. S. & Judin, E. J. (1975). Centrobezhnaye ventiljataray. Pod red. na T. S., Solomahova (avt.), Mashinostroenie, Moskva.

Solomahova, T. S. & Chebaysheva, K. V. (1980). Centrobezhnaye ventiljataray. Aerodinamicheskie shemay i harakteristiki. Аеродинамические схемы и характеристики. Mashinostroenie, Moskva.

 Copyrights© http://conf.uni-ruse.bg

FRI-9.3-1-THPE-14

TECHNICAL – ECONOMICAL ANALYSIS OF THE AIR HEATER WHEN SWITCHING COAL FROM NATURAL GAS

Emilian Velkov, Ph.D Student
Department of Thermotechnics, Hydraulics and Ecology, Agrarian and Industrial Faculty
Ruse University "Angel Kanchev", Ruse
Tel.: +359 887 20 84 03
E-mail: emilian_velkov@abv.bg

Prof. Iliya Iliev, Ph.D
Department of Thermotechnics, Hydraulics and Ecology, Agrarian and Industrial Faculty
Ruse University "Angel Kanchev", Ruse
Tel.: +359 82 888 303
E-mail: iiliev@enconservices.com

Assoc. Prof. Angel Terziev, PhD
Department of Power Engineering and Power Machines, Technical University of Sofia,
Phone: +359 2 965 3443
E-mail: aterziev@tu-sofia.bg

Milen Venev, Ph. D
Department of Thermotechnics, Hydraulics and Ecology, Agrarian and Industrial Faculty
Ruse University "Angel Kanchev", Ruse
Phone: +359 883 33 34 25
E-mail: m_venev@abv.bg

Abstract: *This paper presents a feasibility study of a two-phase thermosiphon while changing fuel from coal to natural gas. A large-scale experimental study was conducted to determine the operating parameters of the two-phase thermosiphon - temperatures before and after the heat exchanger, on the path of air and flue gases, for the two different types of fuels. On the basis of the conducted experimental tests, while using the normative method, the percentage increase in the efficiency of the boiler was determined - using coal - 2.72% and natural gas - 2.43%. The higher coefficient is due to the greater amount of excess air during coal use resulting in more intense heat exchange. The total investment for realization of the two-phase thermosiphon is EUR 185 000. Energy savings are expected to be achieved, with the payback period of 1.93 years when using coal and 0.52 years while using natural gas. The environmental effect of changing the type of fuel is significant - using the thermosiphon while burning coal saves 5 192 t/yr greenhouse gas emission and while burning natural gas - 2 788 t/yr greenhouse gas emission.*

Keywords: *Fuel switch, Techno – iconomical analysis, Boiler efficiency, Emissions reduction*

JEL Codes: *L10, L11*

REFERENCES

Han Y., B. Sheng, T. Zhang (2017), A Techno-economic Assessment of Fuel Switch Options of Addressing Environemntal Challenges of Coal-Fired Industrial Boilers: An analytical work for china, 9th International Conference on Applied Energy, ICAE 2017, Cardiff, UK.

FERC (2012), Energy primer: A handbook of energy market basics. Technical report, Federal Energy Regulatory Commission;

Knittel C. R., K. Metaxoglu, A. Trindade (2015), Natural gas prices and coal displacement evidence from electricity markets, Technical Report.

Linn J., L. Muehlenbachs, Y. Wang (2014), How do natural gas prices affect electricity consumers and the environment, Discussion Report, Washington, www. Rff.org

Marinov H. I., Iliev, Patent № 745/31.01.2002, Heat exchanger with heat pipes.

FRI-9.2-1-EC

FRI-9.2-1-EC-01

DEVELOPMENT OF A NEW PRECISE AND SENSITIVE ANALYTICAL METHOD FOR QUERCETIN QUANTIFICATION

Assoc. Prof. Zvezdelina Yaneva, PhD
Chemistry Unit,
Faculty of Veterinary Medicine,
Trakia University, Stara Zagora, Bulgaria
Phone: 0898 399 203
E-mail: z.yaneva@abv.bg

Abstract: *Quercetin has been demonstrated to play an important role in the protection against environmental oxidative stress. The aim of the current study was to develop a new rapid, sensitive and precise analytical methodology for the determination and quantification of the natural antioxidant in pure form. Two direct spectrophotometric and a RP-HPLC-PDA methods for the bioflavonoid analyses were established. The influences of wavelength, pH, temperature and mobile phase on the biologically active compound determination were investigated. The proposed RP-HPLC-PDA procedure characterized by short retention time (5.9 min), high precision (RSD = 1.326%), and excellent linearity (R2 = 0.9997), which together with the lowest determined values of the lower limit of detection (LOD) and lowesr limit of quantification, undoubtedly proved the undeniable advantages of the chromatographic method over the proposed spectrophotometric techniques.*

Keywords: *quercetin, RP-HPLC, UV-VIS spectrophotometry, quantitative analyses*

JEL Codes: *L10, L11*

ACKNOWLEDGEMENTS

The study was supported financially by Scientific Project No. 13/18 VMF, Faculty of Veterinary Medicine, Trakia University, Stara Zagora, Bulgaria.

REFERENCES

Bao, D., Wang, J., Pang, X. & Liu H. (2017). Protective effect of quercetin against oxidative stress-induced cytotoxicity in rat pheochromocytoma (PC-12) cells. Molecules, 22(7), 1-14.

Gupta, A., Sheth, N, Pandey, S. and Yadav, J. (2015). Determination of quercetin a biomarker in hepatoprotective polyherbal formulation through high performance thin layer chromatography. Journal of Chromatography & Separation Techniques, 6(6), 1-9.

International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use, ICH Harmonized Tripartite Guideline, Validation of Analytical Procedures: Text and methodology, Q2 (R1), p. 1-13 (2005).

Kuntic, V., Pejic, N., Micic, S., Vukojevic, V., Vujic, Z. & Malecev, D. (2005). Determination of the stability constants of the quercetin titanyloxalato complex. J. Serb. Chem. Soc., 70(5), 753–763.

Samet, M. & Wages, P. (2018). Oxidative stress from environmental exposures. Current Opinion in Toxicology, 7, 60-66.

Tejada, S., Nabavi, S., Capo, X., Martorell, M., del Mar Bibiloni, M., Tur, J., Pons, A. & Sureda, A. (2017). Quercetin effects on exercise induced oxidative stress and inflammation. Current Organic Chemistry, 21(4), 348-356.

 Copyrights© http://conf.uni-ruse.bg

FRI-9.2-1-EC-02

INFLUENCE OF ARTIFICIAL LIGHT ON TOMATO PRODUCTIVITY IN GREENHOUSE CONDITIONS IN SOUTH EAST KAZAKHSTAN

Phd student, Indira Belgitayeva
Department of horticulture and nuts growing
Kazakh National Agrarian University, Kazakhstan
Tel+77017536610
E-mail:b.indi@mail.ru

Assoc.prof. Kussainova Gulzhan
Department of horticulture and nuts growing
Kazakh National Agrarian University, Kazakhstan
Tel:+77025988995
E-mail:gulzhan56@yandex.ru

Abstract: *The paper reviews influence of different lightning level on tomatoes productivity in greenhouse conditions in Kazakhstan. Few lightning levels and LED lightning was used to study efficiency of each options.*

In order to gain more insight into the influence on production, was performed an experiment in green house conditions in the east Kazakhstan, were greenhouses more developed. In total used 5 lightning options, on beef type tomato (“Torero”) from 22 July 2017 to 20July 2018. 5 lightning treatment were applied, in one greenhouse, in the similar conditions: control without lightning (1),top lightning HPS-15000lux(2), top lightning HPS-10000lux(3), top lightning Led white (4), top lightning LED-blue red(5). A strong good crop was developed under HPS(2), under LED light we noted long and thin steam, and very small fruits settled per truss. But if to tell about taste of tomatoes, the best were under LED lamps(5). Economic efficiency on HPS much higher compare to other options. So, using artificial light in greenhouses of Kazakhstan profitable, and necessary.

Keywords: *energy use, greenhouse climate, lightning, HPS lamps,LED lamps*

JEL Codes:*Q19*

REFERENCES

Institute of Electrical and Electronic Engineering (IEEE):IEEE Recommended Practices and Requrements for Harmonic Control in electrical power systems, Std.IEEE 519-1992, 1993

C.Dilouie, Advanced Lightning Controls:Energy Savings, Productivity,Technology and Applications, first ed. Georgia, United State, 2005.

Hogewoning, S.W., Douwstra, P., Trouwborst, Van Ieperen, W. and Harbinson, J. 2010b. An aritificial solar spectrum substantially alters plant development compared with usual climate room irradiance spectra. Journal of Experimental Botany 61:1267-1276.

Trouwborst, G., Oosterkamp, J., Hogewoning, S.W., Harbinson, J. and Van Ieperen, W. 2010. The responses of light interception, photosynthesis and fruit yield of cucumber to LED-lighting within the canopy. Physiologia Plantarum 138:289-300.

Paradiso, R., Meinen, E., Snel, J.F.H., De Visser, P., Van Ieperen, W., Hogewoning, S.W. and Marcelis, L.F.M. 2011. Spectral dependence of photosynthesis and light absorptance in single leaves and canopy in rose. Scientia Horticulturae 127:548-554.

FRI-9.2-1-EC-03

ENVIRONMENTAL IMPACT OF THE NOISE, GENERATED FROM TWO CENTRIFUGAL PUMPS, OPERATING IN PARALLEL – STATISTICAL APROACH OF THE LEVELS DISTRIBUTION

Senior assistant Nikolay Kovachev, PhD
Department of Thermotechnics, Hydraulics and Ecology ,
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 498
E-mail: nkovachev@uni-ruse.bg

Abstract: *The paper presents the results of a noise study of a hydraulic system of centrifugal pump operating in parallel. A methodology of experimental studies has been developed and noise testing has been carried out at various pump operating modes. Measurement was performed for 2,000 seconds for each mode, with 2000 values averaged over 1 second on the A-weighted sound pressure level. Statistical data was performed on the test data to determine the influence of the pump operating mode on statistical parameters of distribution laws - dispersion, standard deviation, mathematical expectation, and density of distribution. Depending on the increase of the noise, the flow rate of the pump is determined. An analysis of the environmental impact of the noise from parallel centrifugal pumps was carried out.*

Keywords: *Noise, environmental impact, centrifugal pumps, distribution laws, noise parameters, spectral distribution of sound pressure level, frequency;*

REFERENCES

BDS 12403:1974 Pompi tsentrobezhni, osovi i vihrovi. Metodi za opredelyane na shum I vibratsii (***Оригинално заглавие:*** БДС 12403:1974 Помпи центробежни, осови и вихрови. Методи за изпитване на шум и вибрации)

Vladimirov, L., (2011) Informatsionnata nesigurnost na indiskretno-izmervani shumovi imisii. Chast I. Izmervane i metod za otsenka na nesigurnostta. Sbornik trudove ot nauchna konferentsia “Problemi na imformatsionnata sigurnost prez XXI vek ”NVU “V. Levski” (***Оригинално заглавие:*** *Владимиров, Л., Н. Ковачев. Информационната несигурност на индискретно - измервани шумови имисии. Част I. Измерване и метод за оценка на несигурността. Сборник научни трудове от научна конференция "Проблеми на информационната сигурност през XXI век". НВУ " В. Левски". 2011. с.228-236.*)

Kovachev, N., (2007) Izsledvane na difentsialniya risk ot shuma na uredbi s vodni tsentrobezhni pompi. Chetvarta nauchna konferentsiya “Pozharna ï avariina bezopasnost” Sofia. (***Оригинално заглавие:*** *Ковачев Н. Изследване диференциалния риск от шума на уредби с водни центробежни помпи. Четвърта научна конференция "Пожарната и аварийната безопасност". София 15-16 март, Сборник доклади. 2007. с.281-286.*)

Hassall, J.R., K. Zaveri. (1988). Acoustic noise measurements, June Bruel & Kaer, Sweden

Vaseghi, S. V. (2006). Advanced Digital Signal Processing and Noise Reduction. Third edition. John Wiley & Sons Ltd. The Atrium, Southern Gate. Chichester. England. 480 p.

 Copyrights© http://conf.uni-ruse.bg

FRI-9.2-1-EC-04

THE FEASABILITY OF GROWING TOMATOES IN THE CROSSING TURNOVER IN THE GREENHOUSES OF SOUTH EAST KAZAKHSTAN

Phd student, Indira Belgitayeva
Department of horticulture and nuts growing
Kazakh National Agrarian University, Kazakhstan
Tel+77017536610
E-mail:b.indi@mail.ru

Assoc.prof. Kussainova Gulzhan
Department of horticulture and nuts growing
Kazakh National Agrarian University, Kazakhstan
Tel:+77025988995
E-mail:gulzhan56@yandex.ru

Abstract: *The article presents the results of the research on the product and the benefits of the production, greenhouse of LLP "BRB APK", in tomato department. In the winter, when light is limiting factor, was growing tomatoes under different light levels. East West Kazakhstan located in the 7th lighted zone, what means growing tomatoes in greenhouses possible, but only with using supplementary lightning. Supplemental lightning, traditionally provided by high-pressure sodium (HPS) lamps, which is recommended for greenhouse production of vegetables during light-limiting conditions. In the research used 3type of treatment HPS, LEDs with 2 different spectrum. HPS shows good truss settles than other lamps, LED contain more sugar but less profit, LEDs good shape, good taste, sugar content*

Limited light conditions is the point to research in supplementary lightning in Kazakhstan.

Growing tomatoes in greenhouses with supplementary lightning economically feasible.

Keywords*: supplementary light, HPS lamps, tomatoes, light conditions, greenhouse*

REFERENCES

Bryzgalov V.A. Horticulture in greenhouse / Bryzgalov V.A., Sovetkina V.E., Savinova N.I., Kolos, Saint Peterbourg,1983, P.352-355

Brian R. Poel, Erik S. RunkleSpectral Effects of Supplemental Greenhouse Radiation on Growth and Flowering of Annual Bedding Plants and Vegetable Transplants HortScience September 2017 vol. 52 no. 9 1221-1228

Anerswald H. Einfluss klimatischer Bedingungen auf den Fruchtansatz bei Gewachshaus-tomaten// Gartenban. - 1978. - Vol. 25. - №10. - P.279-299.

Koning A. Welk temperaturregiem voor stook tomaten // Tuinderij. - 1986. - Vol. 66.-№20.- C. 20-21.

Papadoulos A.P., Tiessen H. Root and air temperature effects on the flowering and yield of tomato. // - J. Amer. Soc. Hort. Sci. - 1983. - Vol. 108. - №5. - P.805-809.

Sandwell J. Fairfield EHS gives its views on temperatures for tomatoes. // Grower. - 1976. - Vol. 86. - №1. - P. 51-52.

FRI-9.2-1-EC-05

INNOVATIVE METHODS AND TECHNOLOGY FOR DERIVATION OF CARBOHYDRATE-SILICONE CONTAINING MATERIALS FROM WASTE BIOMASS

Eng. Simeon Borisov,
Haiteck LTD, Bulgaria,
Sofia, 154 Odrin Street
Tel.: +359 89 7869811
E-mail: borisov@haiteck.eu

Assoc. prof. Plamen Manev, PhD
Department of Thermotechnics, Hydraulics and Ecology,
Agrarian and industrial Faculty,
University of Ruse, Bulgaria,
Phone: +35982 888 485,
E-mail: pmanev@uni-ruse.bg

Abstract: *Exhaustion of global reserves of mineral raw materials and fossil energy sources, periodically arising energy crises, and environmental pollution are among the major challenges facing modern society. In the search for new alternative energy and raw materials sources, increasing attention is paid to the processing of industrial, household and agricultural waste into valuable products for the practice. It is of paramount importance in this case to create technologies that are economically viable in achieving the ultimate goal. From renewable agricultural waste, waste from rice production deserves particular attention. The processing of the barley, which separates the grain from the skin, is associated with the accumulation of rice husks, representing about 20 wt. % of total raw material.*

From this point of view, the high content of amorphous SiO_2 and pure carbon in rice husks defines them as a promising cheap, ecological and renewable raw source of Si and C.

Keywords: *Efficiency, Effectiveness, Environmental protection, Methods, Model.*

REFERENCES

Angelova D., A. Atanasova, A. Gigova, I. Uzunov, S. Uzunova, „Iinfluence of the pyrolysis temperature on surface characteristics of the composite C/SiO_2 materials prepared from rice husks", Nanoscience & Nnanotechnology, 11, 2011, 70;

Angelova D., I. Uzunov, S. Uzunova, A. Gigova, L. Minchev. "Kinetics of oil and oil products adsorption by carbonized rice husks", Chem. Eng. J., 172, 2011, 306;

Angelova D., S. Uzunova, I. Uzunov, B. Anchev, "Dependence between oil sorption capacity of pyrolyzed rice husks and the composition and amount of fluids dispersed on their surface", J. Chem. Techn. Metall, 47, 2, 2012, 147-154;

Angelova D., S. Uzunova, S. Staykov, I. Uzunov, "Preparation of a Biogenic Carbon/Silica Based Adsorbent for Removal of Petroleum Products Spills from Aqueous Medium", J. Chem. Technol. Metall., 45 (1), 2010, 25;

Radev D., I. Uzunov, "Nanosized Silicon Carbide Obtained from Rice Husks", Solid State Phenomena, 159, 2010, 153;

Radev D., I. Uzunov, B. Kunev, V.Tumbalev, P. Tsokov, "Nanostructured SiC synthesized from renewable sources", Nanoscience & Nnanotechnology, 9, 2009, 68;

Stankov S., A. Aleksandrova, I. Uzunov, S. Uzunova, B. Banov, A. Momchilov, "Alternative application of processed rice husks as carbon based material for Li-ion batteries", Nanoscience & Nnanotechnology,12, 2012, 64-67;

 Copyrights© http://conf.uni-ruse.bg

Uzunov I., S. Uzunova, A. Gigova, D. Klissurski, S. Staykov, "Synthesis ofbiogenic carbon/silicamaterial by pyrolysis of ricehusks", Proc.Bulg.Acad.Sci., 6, 62, 2009;

Uzunov I., S. Uzunova, D. Angelova, A. Gigova, "Effects of the pyrolysis process on the oil sorption capacity of rice husk", J. Anal. Apll. Pyrolysis, 98, 2012, 166-176;

Uzunov I., S. Uzunova, Rice husks: a waste or a valuable raw material? Possible approaches of theirutilization, Ecolog. Eng. Environ. Protect, 3-4, 37, 2013;

Uzunova S., D. Angelova, B. Anchev, I.Uzunov, A. Gogova, Chenges in structure of solid pyrolysis residue during slow pyrolysis of rice husk, Bulg. Chem. Com., 46, 2014, 184-191;

Uzunova S., I. Uzunov, A. Gigova, P. Tsokov, S. Staikov, "Preparation and characterization of a composite crude oil adsorbent synthesized by the carbonization of rice husks", Nanoscience & Nnanotechnology, 9, 71, 2009;

Uzunova S., I. Uzunov, D. Angelova, Liquid-phase sorption of oil by carbonized RH: Impact of grain size distribution on the sorption kinetics, J. Chem.Tech. Metal.8, 5, 2013, 505-512;

Uzunova S., I. Uzunov, D. Mehandjiev, V. Toteva, Kinetics and mechanism of oil and oil products sorption from water surface onto pyrolyzed waste biomass, Bulg.Chem.Comm. 47, 4 (2015) 985;

Uzunova S., I. Uzunov, S. Vassilev, A. Alexandrova, S. Staykov, D. Angelova, „Preparation of Low-Ash-Content Porous CarbonaceousMaterial From Rice Husks", Bulg. Chem. Comm, 42 (2), 2010, 130;

Uzunova S., I. Uzunov, V. Toteva, D. Mehandjiev, Enhanced Hydrophobicity of Pyrolyzed Rice Husks by Modifying: Factor of Effectiveness, J.Anal.Appl.Pyrol.113 (2015) 729;

Vassileva P., A. Detcheva, I. Uzunov, S. Uzunova, "Removal of Some Metal Ions from Aqueous Solutions Using Pyrolysed Rice Husks: Adsorption Kinetics and Equilibria", Chem.Eng.Comm. 200, 2013, 1578.

FRI-9.2-1-EC-06

RISKMETRICS TO ENVIRONMENTAL PROTECTION

Assoc. prof. Lyubomir Vladimirov, PhD
Department of Thermotechnics, Hydraulics and Ecology,
Agrarian and industrial Faculty,
University of Ruse, Bulgaria,
Phone: +359 898 484 313,
E-mail: lvvladimirov@uni-ruse.bg

Abstract: *The paper presents the foundations of a new direction in the theory of risk for environment – Riskmetrics. It derives its purpose, tasks, scope and object. The principles of Riskmetrics have been formulated. It proposes riskmetric technology and riskmetric fund. They include new methods for case modeling, taxonomy, risk measuring, criticality assessment and respectively environmental security. Analysis is made of the uncertainty of measuring and sensitivity of risk models. Results are filtered and ranked in five-grade scales*

Keywords: *risk, metric, environment, environment protection, criticality, security.*

FRI-1.417-1-MEMBT

FRI-1.417-1-MEMBT-01

VIBRATION STEERING OF VIBRATION-DRIVEN MOBILE ROBOT

Assoc. Prof. Ivan Loukanov, PhD
Department of Mechanical Engineering
University of Botswana, Botswana
Tel. +359 896403311
E-mail: loukanovi@gmail.com

Assoc. Prof. Venko Vitliemov, PhD
Department of Technical Mechanics
University of Ruse, Bulgaria
Tel: +359 82 888 224
E-mail: venvit@uni-ruse.bg

Prof. Ivelin Ivanov, PhD
Department of Technical Mechanics
University of Ruse, Bulgaria
Tel: +359 82 888 472
E-mail: ivivanov@uni-ruse.bg

Assoc. Prof. Velina Bozduganova, PhD
Department of Technical Mechanics
University of Ruse, Bulgaria
Tel: +359 82 888 572
E-mail: velina@uni-ruse.bg

Abstract: *This paper presents a method and control devices aimed at vibration steering of a vibration-driven mobile robot, previously designed, developed, tested and reported. To achieve a proper steering of the robot its control system is appropriately modified and fitted out with a two-way control unit. The proposed steering method is based upon a specially arranged transmission of the generated vibrations by the robot's propulsion mechanism to the chassis through the wheel's shaft. There is no steering mechanism involved as it is in the modern motor vehicles, but pulsing turning moments are generated and applied to the robot chassis through the wheel's shaft in a diagonal manner. The approach appears to be applicable but requires more powerful turning moments, because when turning the lateral sliding of the wheels has to be overcome. To improve and verify this idea a new vibration-driven robot with independent elastic suspensions of the wheels, having novel internal vibration thrust transmission to the wheels and more powerful propulsion mechanism is designed manufactured and tested. The idea is found to work very well and the turning effect of the robot was greater than in the previously developed robot version. Moreover, to increase the vibration steering effect it is also proposed to offset the position of the mass centre of the robot propulsion mechanism combined together with the above steering method. This means that the mass centre of the propulsion mechanism at which the inertial propulsion force acts, has to be shifted perpendicular to the direction of motion in the desired direction left or right, generating additional turning moments, and as a result improving the turn-off abilities of the robot.*

Keywords: *vibration steering, pulsing turning moments, independent elastic suspension, propulsion mechanism, vibration-driven mobile robot, steering control unit*

REFERENCES

Chernousko, F. Zimmermann, K. Bolotnik, S. Yatsun, I. Zeidis. Vibration-driven robots. Workshop on Adaptive and Intelligent Robots: Present and Future. Proceedings of the Institute for problems in Mechanics, Russian Academy of Science, Moscow, Vol. 1, 26–31, 2005.

Jatsun, S., N. Bolotnik, K. Zimmerman, I. Zeidis. Modelling of motion of vibrating robots.

 Copyrights© http://conf.uni-ruse.bg

12-th IFToMM World Congress, Besançon, France, June 18–21, 2007.

Jatsun, S., V. Dyshenko, A. Yatsun, A. Malchikov. Modelling of robot's motion by use of vibration of internal masses. Proceedings of EUCOMES 08, the Second European Conference on Mechanism Science. M. Ceccarelli (Ed.), Springer, New York: 262–270, 2009.

Bolotnik, N., I. Zeidis, K. Zimmermann, S. Yatsun. Vibration-driven robots. 56th International Scientific Colloquium. Ilmenau University of Technology, Germany, 2011.

Provatidis, C.G. Design of propulsion cycle for endless sliding on friction ground using rotating masses. Universal Journal of Mechanical Engineering, Vol.2, No.2, 35–43, 2014.

Loukanov I. A. Inertia Propulsion of Mobile Robot. Journal of Mechanical and Civil Engineering, Vol.12, No.2, Ver.2: 23–33, 2015.

Loukanov I. A., Vitliemov V. G., Ivanov, V, I. Dynamics of a Mobile Mechanical System with Vibration Propulsion (Vibrobot), International Journal of Research in Engineering and Science (IJRES): Volume 4, Issue 6, 44-51, June. 2016.

Loukanov I.A., V.G. Vitliemov, I.V. Ivanov. Dynamics of Vibration-driven One-way Moving Wheeled Robot. IOSR Journal of Mechanical and Civil Engineering, Vol. 13, Issue 3, Version V (May-June 2016b), pp. 14-22.

Loukanov, I.A. Applications of inertial forces for generating unidirectional motion. Conference Proceedings of University of Rouse, Vol. 53, Book 2: Mechanics, Mechanical & Manufacturing Engineering: pp. 9–19, 2014.

Loukanov I.A., Vitliemov V. G., Stoyanov S.P., Stoyanov S. G. Design Developments of Vibration-driven Mobile Robots, 56th Science Conference of Ruse University, Bulgaria, 2017, Reports Awarded with "Best Paper" Crystal Prize'17, Mechanics, Mechanical & Manufacturing Engineering, FRI-1.417-1-MEMBT-01 pp. 50-59, 2017.

FRI-1.417-1-MEMBT-02

OVERVIEW OF THE FAESIBILITY OF SIMULATING WELDING PROCESSES USING THE FINITE ELEMENT METHOD

Assist. Prof. Ivo Draganov, PhD
Department of Technical Mechanics,
Univesity of Ruse, Bulgaria
Phone: 082 888 224
E-mail: iivanov@uni-ruse.bg

Assoc. Prof. Yulian Angelov, PhD
Department of Technical Mechanics,
Univesity of Ruse, Bulgaria
Phone: 082 888 313
E-mail: julian@uni-ruse.bg

Master Eng. Stiliyana Mileva, PhD student
Department of Technical Mechanics,
Univesity of Ruse, Bulgaria
Phone: 082 888 513
E-mail: smileva@uni-ruse.bg

Abstract: *The present paper examines the possibilities of simulation of welding processes by the finite element method. A historical review was made, starting with the application of the electric arc welding. Retrospectively, the progress of the finite element modeling of welding processes is considered. The latest developments in this area have been described.*

Keywords: *Finite Element Simulation, Welding Processes*

REFERENCES

Bai R., Z. Guo, Z. Lei. Prediction of Welding Deformation and Residual Stress of Siffened Plates Based on Experiments. 1-st International Workshop on Materials Science and Mechanical Engineering, 281, 2017.

Barsoum Z., A. Lundbäck. (2009). Simplified FE welding simulation of fillet welds - 3D effects on the formation residual stresses. Engineering Failure Analysis 16, 2281-2289.

Bergheau J., R. (2008) Fortunier. Finite Element Simulation of Heat Transfer. John Wiley & Sons, Ins.

Boulton N., L. Martin. (1936). Residual Stresses in Arc Welded Plates, Proc. Inst. Mech. Engrs., Vol. 133, pp. 295-339.

Brown S., Song H. (1992). Finite Element Simulation of Weldding of Large Structures. Journal of Engineering for Industry, Vol. 114, pp. 441- 451.

Canas J., R. Picon, F. Raris, A. Blazquez, J. Marin. (1996). A Simplified Numerical Analysis of Residual Stresses in Aluminum Welded Plates. Computers & Srrucrures Vol. 58, No. I, pp. 59-69, 1996.

Dojnov N. (2006). Aplication of numerical simulation in welding. CIO, vol. 9. (***Оригинално заглавие:*** *Дойнов Н. 2009. Приложение на численото симулиране в заваряването, CIO, бр.9*).

Duncheva G., J. Maximov, N. Ganev, M. Ivanova. (2015). Fatigue life enhancement of welded stiffened S355 steel plates with noncircular openings. Journal of Constructional Steel Research, Volume 112, pp 93-107.

 Copyrights© http://conf.uni-ruse.bg

Free J., Porter Goff R. (1989). Predicting residual stress in multipass weldments with the finite element method. Computer & Structures, 32(2), pp 365-378.

Friedman E. (1975). Thermomechanical Analysis of the Welding Process Using the Finite Element Method. J. Pressure Vessel Technol 97(3), 206-213.

Gannon L., Y. Liu, N. Pegg, M. Smith. (2010). Effect of weliding sequence on residual stress and distortion in flat-bar stiffened plates. Marine Structures 23, pp. 385-404.

Goldak J., A. Chakravarti, M. Bibby. (1984). A New Finite Element Model for Welding Heat Sources. Metallurgical Trasactions B, Vol. 15B, pp. 299-305.

Gorka J. (2014). Analysis of simulated welding thermal cycles S700MC using thermal imaging camera. Advanced Materials Research Vol. 837, pp 375-380.

Hainze C., C. Schwenk, M. Rathmeier. (2012). Numerical calculation of residual stress development of multi-pass gas metal arc welding. Journal of Constructional Steel Research 72, pp. 12–19, 2012.

Hibbitt H., P. Marcal. (1973). A numerical, thermo-mechanical model for the welding and subsequent loading of a fabricated structure. Comuters & Structures, Vol. 3, pp. 1145-1174.

Jiang J., M. Zhao. (2012). Influence of residual stress on stress concentration factor for high strength steel welded joints. Journal of Constructional Steel Research 72, 20–28.

Karlsson C. (1989). Finite element analysis of temperatures and stresses in a single-pass butt-welded pipe - influence of mesh density and material modelling. Engineering Computations, Vol. 6 Iss 2, pp. 133 - 141.

Karlsson C., B. Josefson. (1990). Three-Dimensional Finite Element Analysis of Temperatures and Stresses in a Single-Pass Butt-Welded Pipe. Journal of Pressure Vessel Technology, Vol. 112, pp. 76-84.

Landau H., J. Weiner, E. Zwicky. (1960). Thermal Stress in a Viscoelastic-Plastic Plate with Temperature-Dependent Yield Stress. Journal of Applied Mechanics, pp. 297-302.

Lejeail Y., M. Cabrillat. Simulation of a stanless steel multipass weldment. 13th International Conference on Structural Mechanics in Reactor Technology, pp 229-234, 1995.

Liang W., D. Deng, H. Murakawa. (2005). Measurement of Inherent Deformations in Typical Weld Joints Using Inverse Analysis (Part 2) Prediction of Welding Distortion of Large Structures. Trans JWRI, pp.11.

Lindgren L. (1986). Temperature fields in simulation of butt-welding of large plates. Communications in Applied Numerical Methods, Vol. 2, pp. 155-164.

Lindgren L. (2001). Finite element modeling and simulation of welding part I: Increased complexity. Journal of Thermal Stresses, 24:2, pp. 141-192.

Lindgren L. (2001). Finite element modeling and simulation of welding part 2: Improved material modeling. Journal of Thermal Stresses, 24:3, pp. 195-231.

Lindgren L. (2001). Finite element modeling and simulation of welding part 3: Efficiency and integration. Journal of Thermal Stresses, 24:4, pp. 305-334.

Lejeail Y., M. Cabrillat. Simulation of a stanless steel multipass weldment. 13th International Conference on Structural Mechanics in Reactor Technology, pp 229-234, 1995.

Marcal P. Finite element analysis of combined problems of nonlinear material and geometric behavior. Pro:. ASME Computer Conf. Computational Approaches Appl. Mech. p. 133, 1969.

Papazoglou V., K. Masubuchi. (1982). Numerical analysis of thermal stresses during welding including phase transformation effects. J. Press. Ves. Technol. ASME 104, 198-203.

Shim B., Z. Feng, S. Lee, D. Kim, J. Jaeger, J. Papritan, C. Tsai. (1992). Determination of Residual Stresses in Thick-Section Weldments. Welding J, pp 305-312.

Smith M., P. Bouchard, M. Turski, L. Edwards, R. Dennis. (2012). Accurate prediction of residual stress in stainless steel welds. Computational Materials Science 54, pp. 312–328.

Stasiuk P., A. Karolczuk, W. Kuczko. (2014). Analysis of non-uniform distribution of the equivalent stress by selected multiaxial fatigue criteria in butt-welded joint. Acta mechanica et automatica, vol.8 no.2, pp. 79-82.

Tsirkas S., P. Papanikos, T. Kermanidis. (2003). Numerical simulation of the laser welding process in butt-joint specimens. Journal of Meterials Technology 134, pp 59-69.

Turner R., M. Villa, Y. Sovani, C. Panwisawas, B. Perumal, R. Ward, J. Brooks, H. Basoalto. (2016). An Improved Method of Capturing the Surface Boundary of a Ti-6Al-4V Fusion Weld Bead for Finite Element Modeling. Metallurgical and Materials Transactions B, Volume 47, Issue 1, pp 485–494.

Oden J., D. Knoss. Analysis of general coupled thermoelastic problems by the finite method. Proc. 2nd Co& Matrix Methods Stract. Meek AFFDL, October, 1968.

Visser W. (1968). The finite element method in deformation and heat conduction problems. Ph.D. Thesis, Delft.

Wilson E., R. Nickell. (1966). Application of the finite element method to heat conduction analysis. Nuclear Engng Design 4, 276-286.

Yaghi A., T. Hyde, A. Becker, W. Sun. (2013). Finite element simulation of residual stresses induced by the dissimilar welding of a P92 steel pipe with weld metal IN625. International Journal of Pressure Vessels and Piping, pp. 1-14.

Yang L., Z. Xiao. (1995). Elastic-plastic modelling of the residual stress caused by welding. Journal of Materials Processing Technology 48, pp 589-601.

Yuen B., F. Taheri, M. Gharghouri. (2006). Fatigue life prediction of welded stiffened 350WT steel plates. Marine Structures 19, pp 241-270.

Zlateva P., K. Jordanov, A. Stoyanova, G. Antonov. (2014). Theoretical-experimental study of thermal processes in TIG welding (`41) of copper plates. Nauchni izvestiya na NTSM, Year XXII, vol. 1 (150), pp. 420-423 (***Оригинално заглавие:*** *Златева П., К. Йорданов, А. Стоянова, Г. Антонов. 2014. Теоретико-експериментално изследване на топлинните процеси при ВИГ* (*141*) *заваряване на медни пластини. Научни известия на НТСМ, Година XXII, брой 1* (*150*)*, стр. 420-423*).

 Copyrights© http://conf.uni-ruse.bg

FRI-1.417-1-MEMBT-03

DISSOLUTION AND MECHANICAL PROPERTIES OF 3D PRINTED POLYLACTIC ACID FOR BIO-IMPLANTS

Asist. Prof. Mariana Ilieva, PhD
Department of Materials Science and Technology,
"Angel Kanchev" University of Ruse
Tel.: +359896128130
E-mail: mdilieva@uni-ruse.bg

Mag. Eng. Dimitar Kamarinchev, PhD student
Department of Materials Science and Technology,
"Angel Kanchev" University of Ruse
Phone: +359882362199
E-mail: dkamarinchev@uni-ruse.bg

Assoc. Prof. Danail Godpodinov, PhD
Department of Materials Science and Technology,
"Angel Kanchev" University of Ruse
Phone: +359887381896
E-mail: dgospodinov@uni-ruse.bg

Assist. Prof. Ekaterin Minev, PhD
Department of Computer Science,
"Angel Kanchev" University of Ruse
Phone: +359887457893
E-mail: eminev@uni-ruse.bg

Assist. Prof. Emil Yankov, PhD
Department of Materials Science and Technology,
"Angel Kanchev" University of Ruse
Phone: +359895614247
E-mail: eyankov@uni-ruse.bg

Assoc. Prof. Roussi Minev, PhD
Department of Materials Science and Technology,
"Angel Kanchev" University of Ruse
Phone: +359886561708
E-mail: rus@uni-ruse.bg

Abstract: *The paper represents preliminary results of dissolution of 3D printed meshes of PLA (polylactic acid) in a biologically active media. The issue of biocompatible polymers dissolution is important as the knowledge of its mechanism and kinetics allows designing bio-implants with required and time controlled properties. Not only dissolution kinetics but also the change in mechanical properties of biocompatible polymers suitable to be used as implants is important. In this study, we investigated the influence of bioactive media on hardness and tensile behaviour of the PLA. Density, mass loss, hardness and tensile strength of the material after soaking in a bioactive media were determined. Mass loss was determined after different soaking times in order to establish a relationship between the rate of PLA dissolution and the geometry of meshes. The results draw some conditions for next experiments to study the kinetics of the PLA dissolution.*

Keywords: *Bio-implants, PLA, Polylactic acid, 3D printing, Polymer dissolution, Tensile test*

REFERENCES

Kalpakjian, S., & Schmid (2013), S., Manufacturing Engineering & Technology, Pearson 11th April (2013), ISBN: 978-01331128741.

Minev, R. et al., & Minev E., Technology for Rapid Prototyping – Basic Concepts, Quality Issues and Modern Trends, Scripta Scientifica Medicinae Dentalis, v2, No1 (2016) , 12-22

Leja, K. et al. (2010), Polymer Biodegradation and Biodegradable Polymers – a Review, Polish J. of Environ. Stud. Vol. 19, No. 2 (2010), 255-266.

Azevedo, H. et al. (2015), Understanding the Enzymatic Degradation of Biodegradable Polymers and Strategies to Control their Degradation Rate, Biodegradable Systems in Tissue Engineering and Regenerative Medicine, CRC Press, Boca Raton (2015), 177-201.

Ratner, B. et al. (2004), Biomaterials Science, AnIntroduction to Materials in Medecine, 2nd Ed., Academic Press, (2004), 78

Gloria, A. et al. (2010), Polymer-based composite scaffoldsfor tissue engineering, Journal of Applied Biomaterials & Biomechanics (2010) vol. 8 no. 2, 57-67.

Gregor, A. et al. (2017), Designing of PLA scaffolds for bone tissue replacement fabricated by ordinary commercial 3D printer, Journal of Biological Engineering (2017), 11-31.

Murphy, S. et al (2014), 3D Printing of Organs and Tissues, Nature Biotechnology, No8 (2014), 773-785

Li, H. et al. (2016), Effects of external stress onbiodegradable orthopedic materials: A review, Bioactive Materials 1 (2016),77-84.

Sanders, D. et al. (2012), Prosthetic mesh materials used in hernia surgery, Expert Rev. Med. Devices, vol.9, no.2 (2012), 159–179.

Xiong, X. et al. (2010), The Degradation of Polylactic AcidAiber, Proceedings of the 2010 International Conference on Information Technology and Scientific Management (2010), 294-295.

Stephen, J. et al. (2017), Bio implant materials: Requirements, Types and Properties - A review, Journal of Chemical and Pharmaceutical Sciences (2017), Special Issue August 2017.

Nagarajan, J – S. et al. (2009), Bio-absorbable polymers in implantation-An overview, J Sci Ind Res, vol. 68, Dec. (2009), 993-1009.

SuPing, L. et al. (2009), Degradability of Polymers for Implantable Biomedical Devices, International Journal of Molecular Sciences (2009), vol.10, 4033-4065.

Deroinė, M. et al. (2014), Accelerated ageing of polylactide in aqueous environments: Comparative study between distilled water and seawater, Polymer Degradation and Stability (2014), vol.108, 319-329.

FRI-1.417-1-MEMBT-04

INFLUENCE OF THE VARIABLE CHARACTER OF ANIZOTROPY ON THE HARDENING CURVES IN HYDRAULIC BULJING TEST OF COPPER SHEET

Assist. Prof. Emil Yankov, PhD
Department of Materials Science and Technology,
"Angel Kanchev" University of Ruse
Phone: +359895614247
E-mail: eyankov@uni-ruse.bg

Abstract: *The study of sheet material of biaxial tensile test gives, as is known, additional useful material information at elevated deformation rates. One of the widely used modern methods of testing is hydraulic buljing test (HBT). Usually the hardening curves in biaxial tensile test in one or another degree differ with the respective curves*

 Copyrights© http://conf.uni-ruse.bg

of one axial tensile test. In the present study an attempt was made to introduce a correction by using an anisotropy change equation in function of the degree of deformation in order to match the oneaxial tensile and biaxial tensile curves. Copper sheet material was investigated and hardening curvs for oneaxial tensile test and HBT were obtained, as well as data for the variation of planar and normal anisotropy within the deformation interval. Satisfactory result gives the correction by introducing a functional dependence of anisotropy on the deformation in the Hill equation by 1978.

Keywords: *Tensile test, Hydraulic buljing test, Anisotropy, Copper, Sheet material*

REFERENCES

Toshihiko Kuwabara, Fuminori Sugawara,Multiaxial tube expansion test method for measurement of sheet metal deformation behavior under biaxial tension for a large strain range, International Journal of Plasticity, Volume 45, 2013, Pages 103-118, ISSN 0749-6419, https://doi.org/10.1016/j.ijplas.2012.12.003.

Toshihiko Kuwabara, Takahiro Mori, Mineo Asano, Tomoyuki Hakoyama, Frédéric Barlat, Material modeling of 6016-O and 6016-T4 aluminum alloy sheets and application to hole expansion forming simulation, International Journal of Plasticity, Volume 93, 2017, Pages 164-186, ISSN 0749-6419.

Y.M. Hwang, Y.K. Lin, H.C. Chuang, Forming limit diagrams of tubular materials by bulge tests, J Mater Process Technol, 209 (2009), pp. 5024-5034.

Toshihiko Kuwabara, Kazuma Hashimoto, Eiji Iizuka, Jeong Whan Yoon, Effect of anisotropic yield functions on the accuracy of hole expansion simulations, Journal of Materials Processing Technology, Volume 211, Issue 3, 2011, Pages 475-481, ISSN 0924-0136.

Haibo Wang, Min Wan, Xiangdong Wu, Yu Yan, The equivalent plastic strain-dependent Yld2000-2d yield function and the experimental verification, Computational Materials Science, Volume 47, Issue 1, 2009, Pages 12-22.

Fahrettin Ozturk, Serkan Toros, Suleyman Kilic, Effects of Anisotropic Yield Functions on Prediction of Forming Limit Diagrams of DP600 Advanced High Strength Steel, Procedia Engineering, Volume 81, 2014, Pages 760-765.

Prasad Dasappa, Kaan Inal, Raja Mishra, The effects of anisotropic yield functions and their material parameters on prediction of forming limit diagrams, International Journal of Solids and Structures, Volume 49, Issue 25, 2012, Pages 3528-3550.

S.M. Mirfalah-Nasiri, A. Basti, R. Hashemi, Forming limit curves analysis of aluminum alloy considering the through-thickness normal stress, anisotropic yield functions and strain rate, International Journal of Mechanical Sciences, Volume 117, 2016, Pages 93-101.

F. Stachowicz, Effect of annealing temperature on plastic flow properties and forming limit diagrams of titanium and titanium alloy sheets, J Mater Process Technol, 48 (1995), pp. 35-41.

R. Hill, The mathematical theory of plasticity, Oxford University Press (1950).

M. Nurcheshmeh, D.E. Green, Prediction of sheet forming limits with Marciniak and Kuczynski analysis using combined isotropic–nonlinear kinematic hardening, Int J Mech Sci, 53 (2011), pp. 145-153.

FRI-1.417-1-MEMBT-05

MODELS FOR INVESTIGATING NONLINEARITY ERRORS OF STATIC CHARACTERISTICS

Prof. Dimitar Dichev, DSc
Department of Mechanical and Precision Engineering,
Technical University of Gabrovo, Bulgaria
Phone: 066 827 360
E-mail: dichevd@abv.bg

Assist. Prof. Fotini Kogia
Technological Education Institute of Eastern Macedonia
and Thrace, Kavala, Greece
Phone: 066 827 360
E-mail: fkogia@yahoo.gr

Assoc. Prof. Hristo Hristov, PhD
Department of Power Engineering,
Technical University of Gabrovo, Bulgaria
Phone: 066 827 222
E-mail: hristo_n_hristov@abv.bg

Chief Assist. Prof. Tsanko Karadzhov, Ph.D.
Department of Mechanical and Precision Engineering,
Technical University of Gabrovo, Bulgaria
Phone: 066 827 360
E-mail: karadjov_st@abv.bg

Abstract: *The paper views the static characteristic properties which influence the measurement result. The terms "measuring instrument error" and "nonlinearity error of the static characteristic" are considered in terms of the logical sequence of operations used within the measurement procedures. In addition, the methods for investigating the nonlinearity error and those for experimentally determining the true static characteristic of a "Parr 6400" calorimeter are presented. The analysis of the experimentally obtained results is based on the five models been developed to investigate the static characteristic.*

Keywords: *metrology, static characteristic, nonlinearity error, metrological characteristics, investigating models.*

REFERENCES

Baptishtev, D. (1998). Methods of optimum design. Moscow: Radio i sviyaz. 1998.

Dichev, D., F. Kogia, H. Koev. (2016). Models for the Analysis of Static Characteristics of Measuring Instruments. In XXVI National Scientific Symposium: Metrology and Metrology Assurance. Sazopol, Bulgaria, 2016, pp. 57-64.

Joint Committee for Guides in Metrology. (2008). International vocabulary of metrology - Basic and general concepts and associated terms (VIM). JCGM 200:2008. International Standatization Organization. Geneva, Switzerland.

Dichev, D., H. Koev, T. Bakalova, P. Louda. (2014). A Model of the Dynamic Error as a Measurement Result of Instruments Defining the Parameters of Moving Objects. Measurement Science Review, Issue 4, Vol. 14, pp. 183-189, ISSN 1335-8871.

Karakoulidis, K., Fantidis, J. G., Potolias, C., Kogias, P., Bandekas., D. V. (2016). The Temperature Measurement of a Single Phase Induction Motor under Different Conditions. ARPN Journal of Engineering and Applied Sciences, 11 (19), pp. 11495-11502. ISSN 1819-6608.

 Copyrights© http://conf.uni-ruse.bg

FRI-1.417-1-MEMBT-06

ENERGY CONSUMPTION AND ENERGY EFFICIENCY OF MACHINE TOOLS – AN OVERVIEW

Assoc. Prof. Krasimir Ivanov, PhD
Department of Mechanical and Manufacturing Engineering,
"Angel Kanchev" University of Ruse
Phone: +359 082 888 451
E-mail: kivanov@uni-ruse.bg

Eng. Borislav Tonkovski
Department of Mechanical and Manufacturing Engineering,
"Angel Kanchev" University of Ruse
Phone: +359 88 878 5554
E-mail: b_tonkovski@abv.bg

Abstract: *Being a main source of energy consumption in production systems, globally the machine tools are a base study object for research communities. This paper presents the research methodology, sustainability trends in the manufacturing industry, the technologies for colleting basic information and forecasting the energy effectiveness, as well as the scientific development in this topic. In addition, there is a connection to vaious economic, ecological and design aspects when developing research of the energy consumption and the effectiveness of machine tools. The results outline the leading countries, institutions, authors and thematic areas in this domain.*

Keywords: *CNC machining; machine tools; energy; sustainable manufacturing.*

REFERENCES

Balogun, V.A. and Mativenga, P.T. (2013) 'Modelling of direct energy requirements in mechanical machining processes', Journal of Cleaner Production, Vol. 41, pp.179–186.

Behrendt, T., Zein, A. and Min, S. (2012) 'Development of an energy consumption monitoring procedure for machine tools', CIRP Annals – Manufacturing Technology, Vol. 61, No. 1, pp.43–46.Buhalis, D. (2000).

CNC Cookbook (2015) [online] http://www.cnccookbook.com/CCCNCMachine.htm

Diaz, N., Redelsheimer, E. and Dornfeld, D. (2011) 'Energy consumption characterization and reduction strategies for milling machine tool use', in Proceedings of the 18th CIRP International Conference on Life Cycle Engineering, Braunschweig, Germany, pp.263–267.

Draganescu, F., Gheorghe, M. and Doicin, C.V. (2003) 'Models of machine tool efficiency and specific consumed energy', Journal of Materials Processing Technology, Vol. 141, No. 1, pp.9–15.

Ehmann, K.F., Kapoor, S.G., Devor, R.E. and Lazoglu, I. (1997) 'Machining process modeling: a review', Journal of Manufacturing Science & Technology, Vol. 119, No. 4B, pp.655–663.

European Commission – Energy Efficiency Communication (2014) Energy Efficiency and its Contribution to Energy Security and the 2030 Framework for Climate and Energy Policy, COM(2014) 520 Final, Brussels [online] http://ec.europa.eu/energy/sites/ener/files/documents/2014_energy_efficiency_communication.pdf

International Energy Agency (2012) Energy Technology Perspectives 2012 – Pathways to a Clean Energy System, Executive Summary, ISBN: 978-92-64-17488-7.

FRI-1.417-1-MEMBT-07

ABOUT THE INFORMATION ASSURANCE OF TECHNOLOGICAL PROCESSES BY MACHINING PARTS

Assist. Prof. Svetlana Koleva, PhD
Department of Technology of Machine Tools and Manufacturing,
University of Ruse "Angel Kanchev"
Tel.: +359 082888653
E-mail: svetla@uni-ruse.bg

Assoc. Prof. Milko Enchev, PhD
Department of Technology of Machine Tools and Manufacturing,
University of Ruse "Angel Kanchev"
Tel.: +359 082888653
E-mail: menchev@uni-ruse.bg

Master Eng. Emil Belyov, PhD Student
Department of Technology of Machine Tools and Manufacturing,
University of Ruse "Angel Kanchev"
Tel.: +359 082888653
E-mail: emo_belyov@abv.bg

Abstract: *The increasing of the effectiveness of the technological processes at different stages of producing parts – design, adoption and regular production, is directly related to their information assurance. Based on the information modelling of the technological process, the article presents and analyzes the capabilities of the proposed scientific approaches for assuring the characteristics for its effectiveness, including the issue of their assessment. Discussed is the state of modern information assurance of technological processes and the ways of its implementation. The need of a new approach for modeling technological processes is justified. This allows overcoming the main problem at their creation – the uncertainty of the values of technological parameters and their influence on the effectiveness characteristics. Formulated are the tasks and approaches that have to be applied to build a reliable and up-to-date information system, which provides the effectiveness of technological processes when machining parts.*

Keywords: *Effectiveness, technological processes, machining parts, information assurance*

REFERENCES

B. Krupińska, D. Szewieczek Analysis of technological process on the basis of efficiency criterion, Journal of Achievements in Materials and Manufacturing Engineering, vol.17, Iss.1-2, July-August 2006;

B. Srinivasa Prasad, D. Siva Prasad, A. Sandeep, G. Veeraiah, Condition Monitoring of CNC Machining Using Adaptive Control, International Journal of Automation and Computing, vol.10, Iss.3, pp 202–209;

Georgiev V., Salapateva S.,Chetrokov I., Lengerov A. (2012), Adaptivno upravlenie i aktiven control v machinostroeneto, EKS-PRES OOD, Gabrovo, 2012 (***Оригинално заглавие:*** *Георгиеж В., Салапатева С, Четроков И., Ленгеров А., Адаптивно управление и активен контрол в машиностроенето, ЕКС-ПРЕС ООД, Габрово, 2012*)

Informacionnoe obespechenie SAPR https://studref.com/422517/tehnika/informatsionnoe_obespechenie_sapr, (***Оригинално заглавие:*** *Информационное обеспечение САПР*), 18.10. 2018;

Informacionnoe obespechenie. Cto obespechivaet i dlja chevo primenqetsja? https://enginclub.ru/informacionnoe-obespechenie-chto-obespechivaet-i-dlya-chego-primenyaetsya/, (***Оригинално заглавие:*** *Информационное обеспечение. Что обеспечивает и для чего применяется?*), 18.10.2018;

 Copyrights© http://conf.uni-ruse.bg

Maxted P., Tackling process variation in manufacturing – the benefits of modern process control techniques, IMTS conference September 2016, https://www.mapyourshow.com/MYS_Shared/imts16/handouts/Paul%20Maxted%20IMTS11v2.pdf, 18.10.2018;

Radchenko S., Informacionnoe obespechenie technologicheskih processov, http://n-t.ru/sp/lesmi/iotp.htm, (***Оригинално заглавие:*** *Радченко С., Информационное обеспечение технологических процессов*), 18.10.2018;

FRI-1.417-1-MEMBT-08

PROBLEMS DURING HIGHLY PRODUCTIVE COMPLEX QUALITY ASSESSMENT OF OBJECTS

Master Eng. Deniz Chakar, PhD Student
Department of machine tools and manifacturing
University of Ruse“Angel Kanchev”
Tel.: +359 897902390
E-mail: dchakar@uni-ruse.bg

Assoc. Prof. Tihomir Todorov, PhD
Department of machine tools and manifacturing
University of Ruse“Angel Kanchev”
Phone: +359 884113775
E-mail: tmtodorov@uni-ruse.bg

Abstract: *This paper aims to reach the technological capacity of complete and complex quallity assessment of products (objects) from the following industries- wood processing, textile, metal processing, construction, agriculture, road construction, etc., through the elimination of the human (subjective) factor and improvement of the control systems existing on the market. Manual measurement and visual quality assessment of products are frequently applied in industry, and this is very ineffective for highly productive processes and is also very subjective. It is possible to eliminate the human factor in the operations for detecting and measuring 3D objects using an innovative technological process. This process uses a system of cameras, lasers and specifically developed software. It enables high precision and productivity of quality assessment of products against predetermined criteria.*

Keywords: *wood processing, (3D) objects, complex quality assessment of products.*

REFERENCES

Ivanov Al. Resursospestiavashti tehnologii i byrzo prototipirane – most mejdu obrazovanie, nauka i promishlenost. CIO „CAD / CAM & GIS”, 2008, vol. VIII, pp. 80-82 (***Оригинално заглавие:*** *Иванов Ал. Ресурсоспестяващи технологии и бързо прототипиране – мост между образование, наука и промишленост. CIO „CAD / CAM & GIS”, 2008, брой VIII, стр. 80-82*).

Bilge T, A R Motorcu, Al Ivanov. Evaluation of surface roughness in the drilling of compact laminate composite. in: 17th International conference on machine design and production, Bursa, Turkey, 2016.

https://www.optical-metrology-centre.com/Downloads/Tech_Briefs/TechBrief_SinglePtOpticalTriangulation.pdf

http://rapidprototype.uni-ruse.bg/triizmerno.html

https://www.ndt.net/article/wcndt2004/pdf/non-contact_ultrasonics/697_revel.pdf

FRI-1.417-1-MEMBT-09

EXAMINATION OF CRANE BOOMS ABOUT THEIR PROPENSITY FOR VIBRATION IN MECHANICAL MACHINING

Master Eng. Nikolay Nikolov, PhD student
Department of Mechanical and Manufacturing Engineering,
University of Ruse "Angel Kanchev", Ruse, Bulgariya
E-mail: nknikolov@uni-ruse.bg

Abstract: *It is known that in the case of mechanical processing by cutting on the efficiency of the process, the stability of the technological system is of great influence. Therefore, processing an unstable workpiece with a rotating tool (milling or scraping) is often accompanied by vibrations. They become a cause for a deterioration in the quality of the treated surface and a decrease in the life of the cutting tool. The positioning of a part in the attachment is binding with the requirement to ensure the accuracy of its processing. To reduce the vibration of the system to vibrations in such cases, an increasing part stability is applied by additional positioning and fixing. These are measures that are often applied intuitively, without analysis, justification and supposed effect. The publication examines the possibility to choose and apply solutions based on a preliminary modal analysis of the construction of the processed parts. Admittedly, such an approach makes sense and should be expected to be effective in processing parts of one type. These are common cases, even for large nomenclature enterprises. Typical examples of unstable construction are the thin-walled box-shaped parts. These are details that perform the role of hull base part in assembled product and require mechanical processing by cutting. Among them are the so-called columns which are part of the crane's arrows.*

Keywords*: Metal cutting, vibrations.*

REFERENCES

Dimitrov D., I. Georgiev.(2015). Razrabotvane na kontseptsiya na metalorezheshta mashina za obrabotvane na tankostenni edrogabaritni detayli, auchna konferentsiya - RU&SU'15 vBalgariya,Ruse,171-174(***Оригинално заглавие:*** Димитров Д., И. Георгиев. *(2015) Разработване на концепция на металорежеща машина за обработване на тънкостенни едрогабаритни детайли,Научна конференция - РУ&СУ'15, 2015, 171-174*)

Dimitrov, D., (2007). Trikoordinatna izmervatelna glava, Mezhdunarodna nauchna konferentsiya AMTECH-07, Gabrovo, 223-226 (***Оригинално заглавие:*** *Димитров, Д., (2007). Трикоординатна измервателна глава, Международна научна конференция AMTECH-07, Габрово, 223-226*)

Dimitrov D., (2013). Eksperimentalno izsledvane vliyanieto na toplinnite deformatsii varhu tochnostta na ustanovyavane na konusen instrumentalen darzhach ISO40 vav vretenoto, Nauchna konferentsiya - RU&SU'13 v Balgariya, Mehanika i mashinostroitelni tehnologii, Ruse, str.57-60 (***Оригинално заглавие:*** *Димитров Д., (2013) Експериментално изследване влиянието на топлинните деформации върху точността на установяване на конусен инструментален държач ISO40 във вретеното, Научна конференция - РУ&СУ'13 в България,Механика и машиностроителни технологии, 57-60*)

Dimitrov D. (2016)Analysis of coordnate measurements with 3D touch probe of machinning centers,International Journal-Institute of Knowledge Management,N13.1,321-326,ISSN1857-92.

Dimitrov, D., Karachorova, V., Szecsi, T.(2014). Accuracy and reliability control of machining operations on machining centres.Key Engineering Materials, 2014, No 615,32-38, ISSN 1013-9826

Dimitrov D., Karachorova V., Nenov G., (2017) Research the possibilities of the method for determining the Tolerances in geometric precision of machining center, International journal for sciense, technics and innovations for the industrtry, 2017, брой 3, 118-120, ISSN WEB 1314-507X.

Dimitrov D., Geotgiev I.,Karachorova V., (2017) Method for technology process control of

 Copyrights© http://conf.uni-ruse.bg

alignment to machining center with two spindles, International journal for sciense, technics and innovations for the industrtry, 2017, брой 4, стр. 174-177, ISSN WEB 1314-507X

Dynamich vibration technology http://www.vibrationmountsindia.com/CNC-vibration-isolation.html

VERTICAL MC HAAS http://www.haascnc.com/DOCLIB/brochures/PDF/VMC.pdf?-0629

FRI-1.417-1-MEMBT-10

EXPERIMENTAL SETUP AND PRELIMINARY RESEARCH OF THE 3D TOUCH PROBE WHEN WORKING ON A TOUCH SIGNAL

Master Eng. Valentin Mihov, PhD student
Department Mechanical and Manufacturing Engineering,
University of Ruse "Angel Kanchev", Ruse, Bulgariya
E-mail: vmihov@uni-ruse.bg

Abstract: *For coordinate measurements with the 3D touch probe, the measuring tip of the stylus must touch the measured surface. As a result, a signal is generated that is used to determine the coordinates at the control point. With mass-triggered constructions, this signal is generated when the nib base is disrupted and a normally closed loop is interrupted. Because of the peculiarities of the structure, the signal is delayed after the touch. The delay is the cause of the so-called zone of insensitivity. The magnitude and unevenness of this area in the space, and especially in the XY plane, negatively affects measurement accuracy. In order to compensate for the zone of insensitivity, calibration is usually performed, which has shortcomings and limited capabilities in measurements on machining centers. Different manufacturers of 3D touch probe, offer their designs with a smaller and more uniform zone of insensitivity. These models, however, have a higher cost and have additional requirements for the work environment. The publication explores the possibility of using a signal from the closing of a normally open loop in contact of the measuring stylus with the measured surface. In order for such a scheme to work is requires the stylus and the measured object to be electrically conductive.*

Keywords: *Accuracy, 3D Touch probe, Efficiency, Zone of insensitivity*

REFERENCES

Dimitrov D., (2013). Eksperimentalno izsledvane vliyanieto na toplinnite deformatsii varhu tochnostta na ustanovyavane na konusen instrumentalen darzhach ISO40 vav vretenoto, Nauchna konferentsiya - RU&SU'13 v Balgariya, Mehanika i mashinostroitelni tehnologii, Ruse, str.57-60 (***Оригинално заглавие:*** *Димитров Д.,* (*2013*) *Експериментално изследване влиянието на топлинните деформации върху точността на установяване на конусен инструментален държач ISO40 във вретеното, Научна конференция - РУ&СУ'13 в България,Механика и машиностроителни технологии, 57-60*)

Dimitrov D., (2013). Eksperimentalno ustanovyavane na statichnata greshka na sledyashti prevodi s indirektna obratna vrazka v ravninata. Nauchna konferentsiya - RU&SU'13 v Balgariya, Mehanika i mashinostroitelni tehnologii,52-56 (***Оригинално заглавие:****Димитров Д.,* (*2013*). *Експериментално установяване на статичната грешка на следящи преводи с индиректна обратна връзка в равнината. Научна конференция - РУ&СУ'13 в България, Механика и машиностроителни технологии, стр.52-56*)

Dimitrov D., (2011). Statichen silov analiz na trikoordinatna izmervatelna glava., Mashinostroene i mashinoznanie, broy 13, str. 49-51, ISSN 1312-8612 (***Оригинално заглавие:*** *Димитров Д.,* (*2011*). *Статичен силов анализ на трикоординатна измервателна глава., Машиностроене и машинознание, брой 13, 49-51, ISSN 1312-8612*)

Dimitrov, D., (2007). Trikoordinatna izmervatelna glava, Mezhdunarodna nauchna konferentsiya AMTECH-07, Gabrovo, 223-226 (***Оригинално заглавие:*** *Димитров, Д., (2007). Трикоординатна измервателна глава, Международна научна конференция АМТЕСН-07, Габрово, 223-226*)

Dimitrov D.,V. Karachorova. (2012). Niskobyudzhetna sistema za upravlenie na parametri ot tochnostta i nadezhdnostta pri obrabotvashti tsentri, NK na RU i SU - 2012, Ruse,Mehanika i mashinostroitelni tehnologii, 93-98 (***Оригинално заглавие:*** *Димитров Д.,В. Карачорова.* (*2012*). *Нискобюджетна система за управление на параметри от точността и надеждността при обработващи центри,НКнаРУиСУ-2012,Русе,Механика и машино-строит. технологии, 93-98*)

Dimitrov D.,V. Karachorova. (2012) Izsledvane na sluchaynata greshka pri ednomerno i dvumerno pozitsionirane na obrabotvasht tsentar,NK na RU i SU-2012,Ruse, Mehanika i mashinostroitelni tehnologii, 109-113 (***Оригинално заглавие:****ДимитровД.,В.Карачорова.* (*2012*). *Изследване на случайната грешка при едномерно и двумерно позициониране на обработващ център, НК на РУ и СУ - 2012, Русе , Механика и машиностроителни технологии,109-113*)

Dimitrov D., T. Szecsi. (2015) Machining accuracy on CNC lathes under the lack of unity of the process and design data. IN: Proceedings of the 48th CIRP Conference on Manufacturing Systems, Ischia, Italy, Procedia CIRP41 CMS 2015, 2016, pp. 824-828

Dimitrov D. (2016) Compensation of systematic errors of 3D touch probe using a touch signal. International Journal - Institute of Knowledge Management, 2016, No 13.1,349-354, ISSN 1857-92

Dimitrov D. (2016)Analysis of coordnate measurements with 3D touch probe of machinning centers,International Journal-Institute of Knowledge Management,N13.1,321-326,ISSN1857-92.

Dimitrov, D., Karachorova, V., Szecsi, T.(2014). Accuracy and reliability control of machining operations on machining centres.Key Engineering Materials, 2014, No 615,32-38, ISSN 1013-9826

Dimitrov D. (2016). Automatic selection of procesing with less error in the positioning of machninig centers.// International Journal - Institute of Knowledge Management, 2016, No 13.1, pp. 327-332, ISSN 1857-92.

Dimitrov D., Karachorova V., Nenov G., (2017) Research the possibilities of the method for determining the Tolerances in geometric precision of machining center, International journal for sciense, technics and innovations for the industrtry, 2017, брой 3, 118-120, ISSN WEB 1314-507X.

Dimitrov D., Geotgiev I.,Karachorova V., (2017) Method for technology process control of alignment to machining center with two spindles, International journal for sciense, technics and innovations for the industrtry, 2017, брой 4, стр. 174-177, ISSN WEB 1314-507X.

 Copyrights© http://conf.uni-ruse.bg

FRI-10.326-1-EEEA

FRI-10.326-1-EEEA-01

CHARACTERIZATION OF THE TOTAL HARMONIC DISTORTION FACTOR IN MARINE POWER SYSTEMS

Prof. Vasile DOBREF, PhD
Department of Naval Electrical and Electronics Engineering,
Naval Academy "Mircea cel Bătrân" Constanța, Romania
E-mail: vasile.dobref@anmb.ro

Assoc. Prof. Florentiu DELIU, PhD
Department of Naval Electrical and Electronics Engineering,
Naval Academy "Mircea cel Bătrân" Constanța, Romania
E-mail: florentiu.deliu@anmb.ro

Lecturer Petrică POPOV, PhD
Department of Naval Electrical and Electronics Engineering,
Naval Academy "Mircea cel Bătrân" Constanța, Romania
E-mail: petrica.popov@anmb.ro

Abstract: *With the increase in the number and types of electric propulsion in both civilian and military naval vessels, the problem of the electric power quality on-board is a challenge. In this respect, a large number of static power converters, DC power converters, inverters, etc. are present in the power generation systems, whose powers reach the order of tens of MW.*

The high number of these devices that work at high powers, inevitably leads to the appearance, in the power distribution system, of harmonics with very high weights.

This paper presents a study of the THD index from the perspective of the quality of electricity and several relevant measurements were made onboard of naval vessel under the conditions of using the ship's finite power plant.

Keywords: *Total Harmonic Distortion, static power converters, current and voltage harmonics*

REFERENCES

IEEE Std 519 (1992). IEEE Recommended Practices and Requirements for harmonic control in Electrical Power Systems.

IEEE STD 45™- (2002). IEEE Recommended Practice for Electrical Installations on Shipboard. Revision of IEEE Std 45-1998.

Jonasson I., Soder L. (2000). Power Quality on Ships. A Questionnaire Evaluation Concerning Island Power System. International Conference on Harmonics and Quality of Power, Vol. 2, pp. 639-644, October 2000.

MIL-STD-1399 (NAVY) (1987). Interface Standard for Shipboard Systems, Electric Power, Alternating Current. Section 300A, 13 October 1987.

Mindykowski J., Tarasiuk T. (2002). Measurement of supply voltage properties in ships' electrical power systems. Metrology and Measurement Systems. Polish Scientific Publishers PWN, vol. IX, No. 1/2002, pp. 19-30, Warsaw 2002,

Nicolae P. M. (1999). Modeling the Influence of External Residual Harmonic over the Three-Phase Short-Circuit Transient Electromagnetic Processes in a Cylindrical Rotor Synchronous Generators. Electric Machines and Drives, 1999. International Conference IEMD '99, pp. 311 – 313, 9-12 May 1999.

Steurer M., Ribeiro P., Liu Y. (2004). Re-Evaluating Electric Power System Harmonic Distortion Limits for Shipboard Systems. Center for Advanced Power Systems (CAPS)-Florida State University, June 25, 2004.

FRI-10.326-1-EEEA-02

SPECTRAL ANALYSIS OF THE BIPOLAR POWER SUPPLY OF A MOBILE INTEGRATING EQUIPMENT FOR MEASURING FORCES AND TORQUES WITH STRAIN GAUGES SENSORS

Assoc. Prof. Svilen Hristov Stoyanov, PhD
Dobrudza Technological College, Dobrich
Technical University Varna
Phone: 058 602 712
E-mail: svilen.stoyanov@tu-varna.bg

Abstract: *In this paper, a study of the pulsations, random and / or noise signals in the bipolar power supply voltage of the operating amplifiers of an integrated measuring transducer, in the composition of mobile equipment for measuring forces and torques is presented. Spectral analysis was carried out and the spectral density determined for the specified bandwidth. The results were obtained by simulating the operation of the transducer with an exemplary resistive decade ± 0.5Ω and a frequency spectrum of 600Hz - 120 kHz. The results obtained are the basis for the development of a prototype measuring transducer.*

Keywords: *Integrating Equipment, Measurement, Spectral analysis, Spectral density, Transducer*

REFERENCES

Kitaev, V., (1993). Calculation of power supplies of communication devices. Moskva: Izdatelstvo „R&S" (***Оригинално заглавие:*** *Китаев В.Е. и колектив., 1993. Расчет источников электропитания устройств связи. София: Издателство „Р. и С."*).

Stefanov, N., (1985). Power supplies, Sofia: Izdatelstvo „Technika" (***Оригинално заглавие:*** *Стефанов Н., Токозахранващи устройства. София: Издателство „ Техника"*).

Stefanov, N., (1991). Power Supply Handbook, Sofia: Izdatelstvo „Technika" (***Оригинално заглавие:*** *Стефанов Н. и колектив, Наръчник по токозахранващи устройства. София: Издателство „ Техника"*).

Stoyanov, S. (2016). Modeling integrtting strain gauges measuring converter whit instrumental amplifier. Paper presented at the 55th International Forum of Russe University & Union of Scientists in Bulgaria, 28th-29th October 2016, Russe.

Stoyanov, S., & Vasilev, R., Zaharieva S. (2017). The study of the power quality of the mobile system for measuring the force and torques in real time. Paper presented at the XIIIth International Forum on Quality Strategy in Industry and Education, 5th-8th June 2017, Varna

Stoyanov, S., & Zaharieva S. (2017). Mobile measuring system for the study of forces and torques in real time on agricultural and transport vehicles. Paper presented at the Modern researches of the basic directions of technical and social sciences ", Kazan cooperative institute of the Russian university of cooperation, 02th-03th March 2017, Kazan.

http://www.hep.upenn.edu/SNO/daq/parts/lm7815.pdf

http://www.hep.upenn.edu/SNO/daq/parts/lm7915.pdf

 Copyrights© http://conf.uni-ruse.bg

FRI-10.326-1-EEEA-03

A RESEARCH OF THE RELATION BETWEEN MAIN CHEMICAL ELEMENTS AND SOIL PROPERTIES

Eng. Nadezhda Paskova, PhD Student
Department of Automatics and Mechatronics,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 676
E-mail: npaskova@uni-ruse.bg

Assoc. prof. Tsvetelina Georgieva, PhD
Department of Automatics and Mechatronics,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 668
E-mail: cgeorgieva@uni-ruse.bg

Prof. Plamen Daskalov, PhD
Department of Automatics and Mechatronics,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 668
E-mail: daskalov@uni-ruse.bg

Abstract: *A research of the relation between basic chemical elements and soil properties is present in the paper. An overview of basic chemical elements and soil properties, basic indicators of soil status, soil sampling methods and existing instruments and systems for measuring basic indicators are made. An approach is proposed to conduct the experimental study of the influence of basic chemical elements and soil properties. A system for measuring basic soil indicators is designed and developed. Statistical methods are used to process the results and the dependency of basic chemical elements and soil quality indicators was investigated. The results obtained from the correlation analysis of basic chemical elements and soil properties indicate that nitrogen has a strong dependence on conductivity, phosphorus - significant dependence on acidity indicator, and potassium - moderate dependence on acidity indicator. A model for the indirect determination of the content of basic chemical elements is developed by measuring basic soil indicators.*

Keywords: *Soil properties, Correlation analysis, Soil indicators, Soil conductivity, Mathematical model*

REFERENCES

Bargrizan, S., Smernik, R., Fitzpatrick, R., Mosley, L., (2018). The application of a spectrophotometric method to determine pH in acidic (pH<5) soils, Talanta, 186, 421-426

Bravoa, S., Amorósa, J., Pérez-de-los-Reyesa, C., Garcíaa, F., Morenoa, M., Sánchez-Ormeñoa, M., Higueras, P., (2017). Influence of the soil pH in the uptake and bioaccumulation of heavy metals (Fe, Zn, Cu, Pb and Mn) and other elements (Ca, K, Al, Sr and Ba) in vine leaves, Castilla-La Mancha (Spain), Journal of Geochemical Exploration, 174, 79–83

Davtiana, N., Ménotb, G., Barda, E., Poulenardc, J., Podwojewskid, P., (2016). Consideration of soil types for the calibration of molecular proxies for soil pH and temperature using global soil datasets and Vietnamese soil profiles, Organic Geochemistry, 101, 140–153

Fan, K., Weisenhorn, P., Gilbert, J., Shi, Y., Baif, Y., Chu, H., (2018). Soil pH correlates with the co-occurrence and assemblage process of diazotrophic communities in rhizosphere and bulk soils of wheat fields, Soil Biology and Biochemistry, 121, 185-192

Hsio, C., Sassenrath, G., Zeglin, H., Hettiarachchi, G., Rice, C., (2018). Vertical changes of soil microbial properties in claypan soils, Soil Biology and Biochemistry, 121, 154-164

Kadirova S. Y., (2016), Regulating the moisture of oilseed material in a toaster for vegetable

oil extraction. INMATEH - Agricultural Engineering, ISSN 2068 – 2239, 3, 99-104

Ludwig, M., Wilmes, P., Schrader, S., (2018). Measuring soil sustainability via soil resilience, Science of The Total Environment, 626, 1484-1493

Mostafaei, H., Montieri, A., Persico, V., Pescapé, A., (2016). An efficient partial coverage algorithm for wireless sensor networks. In: 2016 IEEE Symposium on Computers and Communication (ISCC) (ISCC2016), Messina, Italy, 501–506.

Sanches, G., Magalhães, P., Remacre, A., Franco, H., (2018). Potential of apparent soil electrical conductivity to describe the soil pH and improve lime application in a clayey soil, Soil and Tillage Research, 175, 217-225

Thomaz, E., (2018). Interaction between ash and soil microaggregates reduces runoff and soil loss, Science of The Total Environment, 625, 1257-1263

Zhanga, Y., Biswasa, A., Adamchukc, V., (2017). Implementation of a sigmoid depth function to describe change of soil pH with depth, Geoderma, 289 (1), 1–10

FRI-10.326-1-EEEA-04

A REVIEW OF METHODS FOR DETERMINATION OF CHEMICAL ELEMENTS IN PLANTS

Eng. Nadezhda Paskova, PhD Student
Department of Automatics and Mechatronics,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 676
E-mail: npaskova@uni-ruse.bg

Abstract: *The paper presents an overview of methods for determining chemical elements in plants. Chemical composition of plant cells as well as the basic chemical elements on which the full development of plants depends are analyzed. The influences of the redundancy or deficit of the main chemical elements on the plants are presented. The methods for determining one of the basic chemical elements of the plant nitrogen are analyzed. Computer vision offers objective and non-destructive determination of nitrogen levels in plants.*

Keywords: *Plant chemical elements, Nitrogen, Computer vision*

REFERENCES

A.W. b. S. A. Jaroenseng, S., (2010). "Results of Studies the Possible Correlations between SPAD Value and Total," J. ISSAAS, vol. 16, no. 1, 123-161

Borhan, M.S., Panigrahi, S., Satter, M.A., Gu, H., (2017). Evaluation of computer imaging technique for predicting the SPAD readings in potato leaves, Information processing in a agriculture, 275–282

Finn,D., Page,K., Catton, K., Strounina, E., Kienzle, E., Robertson, F., Armstrong, R., Dalal, R., (2015). Effect of added nitrogen on plant litter decomposition depends on initial soil carbon and nitrogen stoichiometry, Soil Biology & Biochemistry, 160-168

Fang, X., Li,Y., Nie, J., Wang, C., Huang, K., Zhang, K., Zhang, Y., She, H., Liu, X., Ruan, R., Yuan, X., Yi, Z., (2018). Effects of nitrogen fertilizer and planting density on the leaf photosynthetic characteristics, agronomic traits and grain yield in common buckwheat, Field Crops Research,160–168

Guo, W., Nazim, H., Liang, Z., Yang, D., (2016). Magnesium deficiency in plants: An urgent problem, Thecrop Journal, 4, 83–91

 Copyrights© http://conf.uni-ruse.bg

Garuti, M., Langone, M., Fabbri, C., Piccinini, S., (2018). Methodological approach for trace elements supplementation in anaerobic digestion: Experience from full-scale agricultural biogas plants, Journal of Environmental Management, 223, 348–357

Ghiasy-Oskoee, M., AghaAlikhani, M., Sefidkon, F., Mokhtassi-Bidgoli, A., Ayyari, M., (2018). Blessed thistle agronomic and phytochemical response to nitrogen and plant density, Industrial Crops & Products, 122, 566–573

Hamilton, H., Brod, E., Hanserud, O., Müller, B., Brattebø, H., Haraldsen, T., (2017). Recycling potential of secondary phosphorus resources as assessed by integrating substance flow analysis and plant-availability, Science of the Total Environment, 575, 1546–1555

Kant, S., (2018). Understanding nitrate uptake, signaling and remobilisation for improving plant nitrogen use efficiency, Seminars in Cell & Developmental Biology, 74, 89–96

Liu, N., Wu, S., Guo, Q., Wang, J., Cao, C., Wang, J., (2018). Leaf nitrogen assimilation and partitioning differ among subtropical forest plants in response to canopy addition of nitrogen treatments, Science of the Total Environment, 1026–1034

Mao, X., Zheng, Y., Xiao, K., Wei, Y., Zhu, Y., Cai,Q., Chen, L., Xie, H., Zhang, J., (2018). OsPRX2 contributes to stomatal closure and improves potassium deficiency tolerance in rice, Biochemical and Biophysical Research Communications, 495, 461-467

Niu, M., Appuhamy, J., Dungan, R., Kebreab, E., Leytem, E., (2017). Effects of diet and manure storage method on carbon and nitrogen dynamics during storage and plant nitrogen uptake, Agriculture, Ecosystems and Environment, 250, 51–58

Olesen, A., Jensen, S., Alnoee, A., Baattrup-Pedersen, A., Lauridsen, T., Sorrell, B., Riis, T., (2018). Nutrient kinetics in submerged plant beds: A mesocosm study simulating constructed drainage wetlands, Ecological Engineering, 122, 263–270

Pokhrel, S.P., Milke, M.W., Bello-Mendoza, R., Buitrón, G., Thiele, J., (2018). Use of solid phosphorus fractionation data to evaluate phosphorus release from waste activated sludge, Waste Management, 76, 90–97

Reimann, C., Fabian, K., Flem, B., Andersson, M., Filzmoser, M., Englmaier, P., (2018). Geosphere-biosphere circulation of chemical elements in soil and plant systems from a 100 km transect from southern central Norway, Science of the Total Environment, 639, 129–145

Sˇ krbic´, B., Onjia, A., (2007). Multivariate analyses of microelement contents in wheat cultivated in Serbia (2002), Food Control, 18, 338–345

Tang, K., Struik, P.C., Yin, X., Calzolari, D., Musio, S., Thouminot, C., Bjelková, M., Stramkale, V., Magagnini, G., Amaducci, S., (2017). A comprehensive study of planting density and nitrogen fertilization effect on dual-purpose hemp (Cannabis sativa L.) cultivation, Industrial Crops & Products, 107, 427–438

Verma, S., Das, A., Patel, M., Shah, A., Kumar, V., Gantait, S., (2018). Engineered nanomaterials for plant growth and development: A perspective analysis, Science of the Total Environment, 630, 1413–1435

Zhu, J., Li, M., Whelan, M., (2018). Phosphorus activators contribute to legacy phosphorus availability in agricultural soils: A review, Science of the Total Environment, 612, 522–537

Rustioni, L., Grossi, D., Brancadoro, L., Failla, O., (2018). Iron, magnesium, nitrogen and potassium deficiency symptom discrimination by reflectance spectroscopy in grapevine leaves, Scientia Horticulturae, 241, 152–159

Zheng, H., Liu Y., Qin Y., Chen Y., Fan M., (2015). Establishing dynamic thresholds for potato nitrogen status diagnosis with the SPAD chlorophyll meter, Journal of Integrative Agriculture, 14(1), 190–195

FRI-10.326-1-EEEA-05

STUDY ON THE HIGHER HARMONICS IN COMMERCIAL FACILITIES

Assoc. Prof. Lyudmul D. Michailov, PhD
Department of Electrical Power and Electrical Equipment,
Ruse university "Angel Kanchev".
Tel.: 0882 212 418
E-mail: lmichailov@ ru.acad.bg

Mag. eng. Tsvetan Tr. Naumov
PhD student at the Department of Electrical Power and Electrical Equipment,
Ruse university "Angel Kanchev".
Tel.: 0887 792 395
E-mail: cvetan.naumov@cez.bg

Abstract: *As a result of the conducted studied over the higher harmonics in a commercial facility* **(*M*)** *and commercial facility* **(*Л*)** *the average values of phase voltages have been estimated* (*U L1 - average, U L1 min, U L1 max*). *The total harmonic stress distortion coefficients for the three phases are less than 5% and satisfy the requirements of BDS EN 50160: 2007. The mutual coefficients of the harmonics current distortion in maximum values reaches up to 26,4 % for facility* **(*M*)** *and up to 31,1 % for facility* **(*Л*)** *and are less than the critical 50 % of BDS EN 50160:2007. The change of current in the neutral conductor is: for facility* (***M***) *- 52 A max; facility* (***L***) *- 70 A max. The change of the total harmonic distortion coefficient in the neutral conductor THD I L4 is: for facility* (***M***) *- 123.7% on average, 2545% max; facility* (***L***) *-173.92% average, 2550% max. Thevaverage values are above the critical 50% of BDS EN 50160:2007, respectively, in facility* (***M***) *- 2.5 units and for facility* (***L***) *- 3.5 units. Definitely the current and harmonics in the neutral conductor are extremely high. Quick measures are needed to neutralize them.*

Keywords: *electricity grids, higher harmonics, monitoring*

REFERENCES

Standard EN 50160 (2007). „Characteristics of the voltage of electricity distributed by the public distribution electrical systems" (BDS EN 50160:2007) (***Оригинално заглавие:*** *Стандарт EN 50160 „Характеристики на напрежението на електрическата енергия доставяна от обществените разпределителни електрически системи"* (*БДС EN 50160:2007*)).

Petrov O., Petrova P., Ruseva V. (2012). Study on the harmonic polution withun the lightning electricity grids, caused by contemporary LED sources (***Оригинално заглавие:*** *Изследване на хармоничните замърсявания в електрическите мрежи за осветление, причинени от съвременни светодиодни източници*). Energy forum 2012.

Tsvetkova S., Georgieva A., Petrova V., Petleshkov A. (2016). Quality of the electricity in the electricity supply system, powering a supermarket (***Оригинално заглавие:*** *Качество на електрическата енергия в електроснабдителна система, захранваща хипермаркет*). Energy forum Varna 2016.

Kr. Ivanov, G. T.Velev, Ts. TNaumov. (2015). Power quality and energy efficiency in low voltage electrical power system of the technical university of Gabrovo. Annals of the Constantin Brankusi University of Targu Jiu, Engineering Series, №4/2015.

 Copyrights© http://conf.uni-ruse.bg

FRI-10.326-1-EEEA-06

INFORMATION PACKAGE FOR ELECTRICITY QUALITY CONTROL IN TYPE MODUL OF ELECTRICITY DISTRIBUTION GRIDS

Mag. eng. Tsvetan Tr. Naumov
PhD student at the Department of Electrical Power and Electrical Equipment,
Ruse university "Angel Kanchev".
Tel.: 0887 792 395
E-mail: cvetan.naumov@cez.bg

Abstract: *Information package for electricity quality control in type modul of the electricity distribution grids has been synthesized. The package contains matrices for: phase voltages, phase currents, phase active powers, total harmonic distortion of phase voltages, phase currents and phase reactive powers. Through the given matrices other matrices for phase full powers, power factor, effective phase voltages and harmonics electricity are created. The results are used for further development of the active systems for control and management of the quality of the electricity.*

Keywords: *electricity grids, higher harmonics, monitoring*

REFERENCES

Arrilaga, J. D. Bradley. (1990). Harmonics of electrical systems, translation from English (***Оригинално заглавие:*** *Гармоники в электрических системах*), Moscow, Energoatomizdat,p. 320.

Grigoriev O. (2002). Higher harmonics in the electricity distribution grids of 0,4 Кв (***Оригинално заглавие:*** *Высшие гармоники в сетях электроснабжения 0,4 кВ*), Novosti elektrotehniki, -№6(18).

Jejelenko I. V. (2000). Higher harmonics in the eletricitybdistribution of the industrial enterprises (***Оригинално заглавие:*** *Высшие гармоники в системах электроснабжения промпредприятий*) Moscow, Energoatomizdat, p. - 331.

Naumov Tsv. (2018). On the building of systems for assessment and control of the higher harmonics within eletricity distribution enterprises (***Оригинално заглавие:*** *Относно изграждането на системи за оценка и контрол на висшите хармоници в условията на ЕРД*). Energetika magazine №6.

Marton S. (2013). Analysis of the qualitybof the electricity in the distribution grids with decentralized energy sources (***Оригинално заглавие:*** Анализ на качеството на електрическата енергия в разпределителни мрежи с децентрализирани енергийни източници). Autoreferat of PhD thesis for academic title of a "doctor", Sliven.

Kr. Ivanov, G. T.Velev, Ts. TNaumov. (2015). Power quality and energy efficiency in low voltage electrical power system of the technical university of Gabrovo. Annals of the Constantin Brankusi University of Targu Jiu, Engineering Series, №4.

FRI-10.326-1-EEEA-07

CURRENT STATUS AND FUTURE DIRECTIONS OF RENEWABLE ENERGY USE IN AFGHANISTAN

Najmuddin Noorzad, PhD Student
Department of Electrical and Electronics Engineering,
Muğla Sıtkı Koçman University, Turkey
Electrical Engineering, Electronics and Automation,
"Angel Kanchev" University of Ruse, (ERASMUS+)
Tel.: +359 877 904 195
E-mail: najmuddin.noorzad@gmail.com

Prof. Nicolay Mihailov, PhD, DHC
Electrical Engineering, Electronics and Automation,
"Angel Kanchev" University of Ruse
Phone: +359 888 539 388
E-mail: mihailov@uni-ruse.bg

Abstract: *This paper reviews the existing status of renewable energy resources, assesses their potential for the contribution of energy demand in Afghanistan, and in order to make the best possible use of these resources, it examines the future prospects. Afghanistan's viable renewable energy sources are hydro, wind, solar, biomass and geothermal, which are spread over wide geographical areas throughout the country. Now, the power sector of Afghanistan has mainly relied on importing electricity from the neighbor countries, which is not an optimum solution for the long-term. The most hopeful and promising source for everlasting electricity generation in Afghanistan is renewable energy, which offers a wide array of opportunities. Afghanistan can produce around 318 GW of electricity through utilizing renewable energy resources available in the country. The rapid and high deployment of renewable energy empowers a sustainable future in Afghanistan. By using its energy potential, Afghanistan will be capable of providing its own energy at self-sufficiency level. Afghanistan's energy sector and its economy are at crossroads of the region. With the cooperation of Regional Energy and Natural Resources, this potential can be harnessed timely for the benefit of the country and entire region. Therefore, to establish PEACE and PROSPERITY for all, we need to make a leap beyond our past limitations, get rid of barricades at our borders, and secure a Regional Power Trade.*

Keywords: *Renewable Energy, Potential, Electricity Generation, Power, Sustainable Future*

REFERENCES

Ershad, A. M. (2017). Institutional and policy assessment of renewable energy sector in Afghanistan. Journal of Renewable Energy, Volume 2017, Article ID 5723152, doi.org/10.1155/2017/5723152.

ESMAP. (2016). Energy security trade-offs under high uncertainty: Resolving Afghanistan's power sector development dilemma. World Bank/Energy Sector Management Assistance Program, Report No: ACS19167.

Fichtner GmbH & Co. KG. (2013). Islamic Republic of Afghanistan: Power Sector Master Plan. ADB (Asian Development Bank)/Ministry of Energy and Water, Final Report.

Korkovelos, A., Bazilian, M., Mentis, D., & Howells, M. (2017). A GIS approach to energy system planning in Afghanistan. World Bank/KTH-dESA, Final Report.

Ludin, G. A., Amin, M. A., Aminzay, A. & Senjyu, T. (2016). Theoretical potential and utilization of renewable energy in Afghanistan. AIMS Energy, 5(1), 1-19. DOI: 10.3934/energy.2017.1.1.

Ministry of Energy and Water, Islamic Republic of Afghanistan. (2015). Renewable Energy Policy.

Ministry of Energy and Water, Islamic Republic of Afghanistan. (2016). Five-year energy sector development plan (2016-2020): Summary and plan matrix. Institutional Development for

 Copyrights© http://conf.uni-ruse.bg

Energy in Afghanistan (IDEA), Project No: 15.2000.6-001.00.

Rostami, R., Khoshnava, S. M., Lamit, H., Streimikiene, D., & Mardani, A. (2017). An overview of Afghanistan's trends toward renewable and sustainable energies. Renewable and Sustainable Energy Reviews, 76 (2017), 1440–1464.

World Bank. (2018). Afghanistan renewable energy development issues and options. Report No: 127859.

FRI-10.326-1-EEEA-08

METHODS FOR ASSESSING THE QUALITY AND FRESHNESS OF MEAT AND DAIRY PRODUCTS

Eng. Ioanna Angelova, PhD student
Department of Automatics and Mechatronics,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 676
E-mail: igangelova@uni-ruse.bg

Abstract: *This paper presents the different methods of assessing the quality and freshness of meat and dairy products. A comparative analysis of the used methods, techniques and resources for giving an express evaluation of the freshness of the products studied is made. Applicability of spectroscory in the near infrared and visible area, analisis of the hyper-spectral images, electronic nose, predictive models and techniques of the computer vision for evaluation of the quality and freshness of the meat is analyzed. The same analysis goes for evaluating the quality and freshness of the dairy products. Spectroscopy in the near infrared area allows some of the ingridients in the dairy products to be measured simultaneously.*

Keywords: *Computer vision, Spectroscopy, Analysis of the hyper-spectral images, Meat, Dairy products*

REFERENCES

Alander, J. T, Bochko V., Martinkauppi B., Saranwong S., Mantere T., (2013). A Review of Optical Nondestructive Visual and Near-Infrared Methods for Food Quality and Safety. International Journal of Spectroscopy

Barreto, A., Cruz-Tirado, J.P., Siche, R., Quevedo, R., (2018). Determination of starch content in adulterated fresh cheese using hyperspectral imaging, Food Bioscience. Volume 21, Pages 14-19.

Blazquez, C., Downey, G., O'Donnell, C., (2004). Prediction of moisture, fat and inorganic salts in processed cheese by near-infrared reflectancespectroscopy and multivariate data analysis. J. Near Infrared Spectroscopopy, 12, 149-157.

Darnay, L., Kralik, F., Oros, G., Koncz, A., Firtha, F., (2017). Monitoring the effect of transglutaminase in semi-hard cheese during ripening by hyperspectral imaging, Journal of Food Engineering, 196, 123-129

Fakruddin M., Mazumder, R., Shahnewaj, K., Mannan, B., (2011). Predictive microbiology: Modeling microbial responses in food.. Ceylon Journal of Science (Bio. Sci.), 40 (2), 121-131

Hong, H., Wang, J., Discrimination and Prediction of Pork Freshness by E-nose, Computer and Computing Technologies in Agriculture, 1-14.

Huang, H., Yu, H., Xu, H., Ying, Y., (2008). Near infrared spectroscopy for on/in-line monitoring of quality in foods and beverages: a review. J Food Eng., 87 (3), 303-313.

Jackman, P., Sun, D., Allen, P., (2011). Recent advances in the use of computer vision

technology in the quality assessment of fresh meat, Trends in Food Science & Technology, 22, 185-197

Kamruzzaman, M., ElMasry, G., Sun, D.-W., & Allen, P. (2012). Prediction of some quality attributes of lamb meat using near-infrared hyperspectral imaging and multivariate analysis, Analytica Chimica Acta, 714, 57–67.

Kra, K., Mégnanou, RM., Akpa, EE., Assidjo, NE., (2013). Evaluation of physico-chemical, nutritional and microbiological quality of raw cow's milk usually consumed in the central part of côte d'ivoire**,** 13 (3)

Kalit, M., Marković, K., Kalit, S., Vahčić, N., Havranek, J., (2014). Application of electronic nose and electronic tongue in the dairy industry, Mljekarstvo, 64 (4), 228-244

Mladenov, M., Dejanov, M., Penchev, S., (2016). Evaluation of the Freshness of Food Products by Predictive Models and Neural Networks – a Comparative Analysis, IEEE 8th International Conference on Intelligent Systems

Meagher, L.P., Holroyd, S.E., Illingworth, D., van de Ven F., Lane, S., (2007). At-line near infrared spectroscopy for prediction of solid fat content of milk fat from New Zealand butter, J. Agric. Food Chem., 55, 2791-2796.

Qiao, L., Tang, X., Dong, J., (2017). A feasibility quantification study of total volatile basic nitrogen (TVB-N) content in duck meat for freshness evaluation, Food Chemistry 237, 1179–1185.

Reis, M., Beers, R., Al-Sarayreh, M., Shorten, P., Yan, W., Saeys, W., Klette, R., Craigie, C., (2018). Chemometrics and hyperspectral imaging applied to assessment of chemical, textural and structural characteristics of meat, Meat Science, 144, 100-109.

Timsorn, K., Wongchoosuk, C., Wattuya, P., Promdaen, S., Sittichat, S., (2014). Discrimination of chicken freshness using electronic nose combined with PCA and ANN, Conference: 11th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON).

Winquist, F., Krantz-Rülcker, C., Wide, P., Lundström, I., Monitoring of freshness of milk by an electronic tongue on the basis of voltammetry, Measurement Science and Technology, 9 (12)

Wang, Y., Ding, W., Kou, L., Li, L., Wang, C., Jurick II, W., (2015), A Non-destructive method to assess freshness of raw bovine milk using FT-NIR spectroscopy.J Food Sci Technol, 52(8), 5305–5310.

Xiong, Z., Sun, D., Pu, H., Xie, A., Han, Z., Luoa, M., (2015). Non-destructive prediction of thiobarbituric acid reactive substances (TBARS) value for freshness evaluation of chicken meat using hyperspectral imaging, Food Chemistry, 179, 175-181.

Тодоров, Т., (2014). Определяне на зрелостта на кашкавал от краве мляко чрез мултисензорна система „електронен нос". Международна научна конференция UNITECH, 243-246.

http://www.mzh.government.bg/media/filer_public/2018/03/01/mliako.pdf

 Copyrights© http://conf.uni-ruse.bg

FRI-10.326-1-EEEA-09

MAXIMUM POWER POINT TRACKING FOR PHOTOVOLTAIC SYSTEM

Eng. Penko Binkov, Student
Department of Electronics,
University of Ruse "Angel Kanchev"
Tel.: +359 878 872 495
E-mail: penko_b@abv.bg

Principal Assistant Seher Kadirova, PhD
Department of Electronics, Faculty of Electrical Engineering, Electronics and Automation
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 516
E-mail: skadirova@uni-ruse.bg

Abstract: *The increasing energy demands, depleting fossil fuels and increasing global warming due to carbon emission has arisen the need for an alternate, overall efficient and environment-friendly energy system. Solar energy is considerred as one of the most promising alternative energy sources, but it has the problem of low efficiency due to varying environmental conditions. To increase its efficiency, a maximum power point tracking (MPPT) algorithm is required to harvest maximum power from the Photovoltaic (PV) array. This work is based on the idea to trun ON and OFF the MPPT through the night. Real time clock to set time in wich MPPT is ON is proposed in the paper. Possibility to collect information for produced energy in time is softwarely organized in database.*

Keywords: *MPPT, Simulation, RTC, Photovoltaic*

REFERENCES

Babaa, S., Armstrong M., & Pickert V., (2014). Overview of Maximum Power Point Tracking Control Methods for PV Systems., Journal of Power and Energy Engineering, Vol. 2, 59-72. DOI:10.4236/jpee.2014.28006

Bendib, B., Belmili H., & Krim F., (2015). A survey of the most used MPPT methods: Conventional and advanced algorithms applied for photovoltaic systems. Renewable and Sustainable Energy Reviews, Vol. 45, 637 –648. https://doi.org/10.1016/j.rser.2015.02.009

Naghmash, H., Ahmad I., Armghan A., Khan S., & Muhammad Arsalan (2018) Backstepping based non-linear control for maximum power point tracking in photovoltaic system. Solar Energy, Vol. 159, 134–141. https://doi.org/10.1016/j.solener.2017.10.062

FRI-10.326-1-EEEA-10

DESIGN OF DIRECT ALTERNATING CURRENT DRIVER SYSTEM FOR DECREASE OF FLICKER INDEX

Denis Sami, Bachelor Student
Department of Electronics,
Univesity of Ruse "Angel Kanchev"
Tel.: +359 89 990 3304
E-mail: denis.sami1997@gmail.com

Assist. Prof. Seher Kadirova, PhD
Department of Electronics, Ruse,
Univesity of Ruse "Angel Kanchev"
Phone: +359 87-708-9537
E-mail: skadirova@uni-ruse.bg

Oznur Sanatsever, Engineer
Research and Development Department
TD Elektronick LTD
Tel.: +90 549 806 26 44
E-mail: Oznursanatsever@tdelektronik.com

Abstract: *This paper presents the process of design and investigation of electronic modules, as well as preparing of lighting specifiers, installers and ways to avoid flickering effects. All new generations of LED industry involve in their production a DACD (Direct Alternating Current Driver) system to decrease a production cost and provide quality products to the market. For achieving the aim, inventors are required. Applying LED lamps direct to the AC networks seems straightforward, but should be done with care to achieve similar light quality as the conventional lamp that the user is trying to replace. Light flicker is one of the aspects that need to be considered carefully during LED lamp design to avoid customer complaints from the field. This application note explains the LED lamp flicker phenomena in relation to driver topology and LED characteristics. A practical flicker measurement method is explained as well, that can be used to measure light flicker in LED lamps.*

Keywords: *LED, DACD, light quality, flicker index.*

REFERENCES

AbdEl-Moniem M., Azazi H., & Mahmoud S., (2014), A current sensorless power factor correction control for LED lamp driver, Alexandria Engineering Journal, Vol. 53, 69–79. https://doi.org/10.1016/j.aej.2014.01.001

Seo, K., Jung, J., & Park, J., (2014), Multi-string AC-powered LED driver with current regulation reduction based on simple circuitry, IEICE Electronics Express, Vol.11, No.19, 1–8.

Ning, N., Chen W. B., Yu D. J., Feng C. Y. & C. B. Wang, (2013), Self-adaptive load technology for multiple-string LED drivers, Electronic Letters, Vol. 49, 1170-1171. DOI:10.1049/el.2013.2093

Osterhaus, W., Stoffer S., & Erhardtsen I., (2014), Detecting and evaluating flicker from lighting systems during field assessments of lighting installations, Nordic Ergonomics Society Annual Conference – 46, 421-427.

 Copyrights© http://conf.uni-ruse.bg

FRI-10.326-1-EEEA-11

WEB-BASED SYSTEM FOR CONTROL OF ENVIRONMENT PARAMETERS

Prof. Ivan Evstatiev, PhD
Department of Electronics, Ruse,
Univesity of Ruse "Angel Kanchev"
Phone: +359 886 337 544
E-mail: ievstatiev@uni-ruse.bg

Assist. Prof. Seher Kadirova, PhD
Department of Electronics, Ruse,
Univesity of Ruse "Angel Kanchev"
Phone: +359 877 089 537
E-mail: skadirova@uni-ruse.bg

Eng. Nikolay Kamenov, Student
Department of Electronics, Ruse,
Univesity of Ruse "Angel Kanchev"
Phone: +359 889 959 391
E-mail: n.kamenov@cnsys.bg

Eng. Miroslava Hristova, Student
Department of Electronics, Ruse,
Univesity of Ruse "Angel Kanchev"
Phone: +359 887 357 678
E-mail: skadirova@gmail.com

Abstract: *The papers combines knowledge in Computers* (*Operating Systems and Computer Hardware*) *with knowledge in the field of Electronics in University of Ruse. Building an IoT project requires knowledge of computer operating systems and basic programming and understanding how sensors are made, for example single sensor has analog input and receives some type of environmental data like temperature, humidity and then converts data to digits that computers can interpret. IoT becoms wide adopted in automotive industry, healthcare, home automation, werables, industrial and a lot more areas. All big names in IT indurstiry like Microsoft, VMware, Cisco, Amazon, HPE, IBM and many other companies are focusing on providing IoT cloud based services. Bulidling an IoT based Raspberry Pi project is relatively easy because a lot of sensors are ready for use and can be attached to the board directly, also there is wide support of program libraries for languages like C++ and Python. Result from sensors are visualised in IoT cloud, adding some functions it the code we can control relays, solenoids and many more execution mechanisms.*

Keywords: *Efficiency, IoT, Control system.*

REFERENCES

Yong. W., Shuaishuai L., Li L., Minzan L., Ming L., Arvanitis K., Georgieva Cs., & Sigrimis N., (2018), Smart Sensors from Ground to Cloud and Web Intelligence. IFAC Papers OnLine 51-17, pp. 31-38.

Stoev, I., (2017), Electronic system for home automation, 56th Science Conference of Ruse University, Bulgaria, 73-78.

Stoev, I., & Mutkov, V., (2018), Microclimatic data collection multisensor system for design of energy model in residential buildings, 20th International Symposium on Electrical Apparatus and Technologies, SIELA 2018 – Proceedings.

FRI-2G.302-1-CSN

FRI-2G.302-1-CSN-01

OPTIMIZATION AND STUDIES OF A QUADRATURE GENERATOR

Assoc. Prof. Boyan Karapenev, PhD
Department of the Communication Equipment and Technologies,
Technical university of Gabrovo, Bulgaria
Phone: 066-827 415
E-mail: bkarapenev@tugab.bg

Abstract: *This paper presents the special features of RC harmonic oscillation generators and their widespread use and in particular the quadrature generators which provide two output signals dephased at 90º or 270º. Quadrature generators can be classified as those with an aperiodic frequency-determining circuit or with a phase inverter group which are used to generate oscillations of one or more fixed frequencies. An optimization of a quadrature generator circuit has been performed. The results obtained from the simulation and experimental studies performed are presented for the proposed circuit. It can be assumed that the experimental and simulation results completely coincide to an accuracy up to 0,26% for the amplitude of the generated signals and to an accuracy of 0,64% for the generated frequency. Quadrature generators are very widely used in communication technology and, most importantly, in the structure of digital frequency, phase and quadrature-amplitude modulators and demodulators.*

Keywords: *Quadrature Generator, Optimization, Studies*

REFERENCES

Manchini, P., Generatori garmonicheskih signalov na operatsionnih usilitelyah (***Оригинално заглавие:*** *Манчини, Р., Палмер, Р. Генераторы гармонических сигналов на операционных усилителях*). URL: http://zpostbox.ru/sine_wave_oscillators.html (accessed on 16.09.2018).

Nemigenchev, I. (2006). Analogova shemotehnika. Universitetsko izdatelstvo "V. Aprilov", Gabrovo, ISBN 954-683-334-7 (***Оригинално заглавие:*** *Немигенчев, И. (2006). Аналогова схемотехника. Университетско издателство „В. Априлов", Габрово, ISBN 954-683-334-7*).

Nemigenchev, I., Karapenev, B. (2007). Komunikatsionni preobrazuvatelni ustroistva. Universitetsko izdatelstvo "V. Aprilov", Gabrovo, ISBN 978-954-683-361-7 (***Оригинално заглавие:*** *Немигенчев, И., Карапенев, Б.* (*2007*). *Комуникационни преобразувателни устройства. Университетско издателство „В. Априлов", Габрово, ISBN 978-954-683-361-7*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.302-1-CSN-02

DETERMINATION OF THE MEMBERSHIP OF TELETRAFFIC PARAMETERS OF MARKOV CHAINS BY NEURO-FUZZY CLASSIFIER

Prof. Mihail Iliev, DcS
Telecommunications Department,
"Angel Kanchev" Univesity of Ruse
Tel.: 082-888 673
E-mail: miliev@uni-ruse.bg

Assoc. Prof. Ivelina Balabanova, PhD
Department of Communications Equipment and Technologies,
Technical University of Gabrovo
Phone: 0896 640 473
E-mail: ivstoeva@abv.bg

Eng. Georgi Georgiev, PhD Student
Telecommunications Department,
"Angel Kanchev" Univesity of Ruse
Phone: 0877 522 029
E-mail: givanow@abv.bg

Abstract: *The study presents a methodological sequence for the synthesis of Classifier for identification and categorization of M / M / 1 and M / M / 1 / k telegraphic systems with Markov Laws of Information Streams based on the adaptive neural-fuzzy interface systems (ANFIS). For the purpose of the research, a simulation modeling of Markov chains is completed. Experimental data for Custumer ID, Arrival Time, Start Execution and Exit System parameters were obtained. Teleraphic parameters in training of neuronal-fuzzy structures at different algorithms and membership function of the input variables for increase the classification accuracy were selected. An ANFIS structure by excluding the Customer ID in a hybrid learning algorithm and trapezoidal membership function of the input variables with the best accuracy has been synthesized fot teletraffic system identification.*

Keywords: *Markov Chains, Teletraffic Parameters, Neuro-Fuzzy Classifier, System Parameters Identification*

REFERENCES

Asadpour V., Ravanfar M., & Fazel-Rezai R. (2013). Adaptive Network Fuzzy Inference Systems for Classification in a Brain Computer Interface. INTECH, Open Science, (3), 43-59. URL:

http://dx.doi.org/10.5772/55989.

Chen C., Vachtsevanos1 G., & Orchard M. (2010). Machine Remaining Useful Life Prediction Based on Adaptive Neuro-Fuzzy and High-Order Particle Filtering. Annual Conference of the Prognostics and Health Management Society, 1-9.

Devi T., Swathi N., Prabaharan J., & Manigandan J. (2016). Offline Handwriting Identification Using Adaptive Neural Fuzzy Inference System. International Journal of Advanced Networking & Applications (IJANA), 1st International Conference on Innovations in Computing & Networking (ICICN16), CSE, RRCE, 221-223.

Dong L. (2014). Study on Post-processing Method for HMM-based Phonetic Segmentation using Adaptive Neuro Fuzzy Interface System. Japan Advanced Institute of Science and Technology, School of Information Science, (1-3).

Kan M., Tan. A., & Mathew J. (2015). A review on prognostic techniques for non-stationary and non-linear rotating systems. ELSEVIER, Mechanical Systems and Signal Processing, 1-20. URL: http://dx.doi.org/10.1016/j.ymssp.2015.02.016.

Rustanov M. (2018). A Hybrid System for Subjectivity Analysis. Hindawi, Advances in Fuzzy Systems, 1-10. URL: https://doi.org/10.1155/2018/2371621.

Rustamov S., Mustafayev E., & Clements M. (2018). Context Analysis of Customer Requests using a Hybrid Adaptive Neuro Fuzzy Inference System and Hidden Markov Models in the Natural Language Call Routing Problem. De Gruyter, Open Access, (8), 61-68. URL: http://doi.org/10.1515/eng-2018-0008.

FRI-2G.302-1-CSN-03

SYNTHESIS OF NEURON MODELS FOR PREDICTION OF TRAFFIC PARAMETERS OF MARKOV CHAIN M/M /C/K

Eng. Georgi Georgiev, PhD Student
Telecommunications Department,
"Angel Kanchev" Univesity of Ruse
Phone: 0877 522 029
E-mail: givanow@abv.bg

Abstract: *This paper presents the results of the M/M/c/k Markov chain simulation and the synthesis of artificial neural networks for prediction of teletraffic parameters. In searching for appropriate neural models, the neurons in the hidden layers in range of 5 to 20 were changed. Neural networks with 9 and 6 hidden neurons were synthesized to predict of Arrival rate and Exit System parameters at respective input variables Average Arrival Rate, Average Service Time and Maximum Station Capacity for the Markov chain based on absolute network errors. The procedure of Post-training analysis is applied to the selected models. A technical approach has been introduced to determine the influence of neural network input variables on the change of predictive parameters by analysis of the correlation coefficients.*

Keywords: *Simulation, Markov Chain, Teletraffic Parameters, Artificial Neural Networks, Prediction Models*

REFERENCES

Balabanova, I., & Georgiev, G. (2016). Izsledvane na vliyanieto na parametric na teletrafichen model na glasovi iztochitsi. *Izvestiya na Tehnicheski Universitet – Gabrovo,* 53, 84-90.

Balabanova, I., & Georgiev, G. (2016). Izsledvane na vliyanieto na intenzivnostta na postapvane na povikvaniyata λ_I i razmera na opashkata q varhu srednoto vreme za presto v sistemata W i veroyatnostta za zagubi B na teletrafichen model na glasovi iztochnici. *Izvestiya na Tehnicheski Universitet – Gabrovo,* 53, 69-73.

Balabanova, I, Georgiev, G., Kogias, P., & Sadinov, S. (2016). Selection of plan of experiment by statistical analysis of the parameters of teletraffic model with voice services. *Journal of Engineering Science and Technology Review*, 9(6), 76-81.

Balabanova, I., Georgiev, G., & Kostadinova, S. (2015). *Identifitsirane na parametri na glasovi iztochnitsi s prilozhenie na ANN i ANFIS klasifikatori*. 54th Science conference of Ruse University "Angel Kanchev", Ruse.

Balabanova, I., Georgiev, G., Penchev, P., Kostadinova, S., & Dimova, R. (2016). *Classification of Teletraffic Service Devices by K-NN, ANFIS and ANN Classificators*., Paper presented at the IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), Varna, Bulgaria.

Georgiev, G., & Balabanova, I. (2015). Clasifitsirane na teletrafichni sistemi s yavni zagubi posredstvom izkustvena nevronna mrezha. *Compiutarni nauki i komunikacii*, Burgaski Svoboden

Universitet, 4(1), 85-94.

Mustafa, M., Allen, T., & Appiah, K. (2017). A comparative review of dynamic neural networks and hidden Markov model methods for mobile on-device speech recognition. *Springer, Neural Comput & Applic*, 1-9.

Sadinov S., Balabanova, I., & Georgiev, G. (2018). Statistical models for predcting of teletraphic parameters of Marckov chains. *International Journal Information Models and Analyses, ITHEA* 7(1), 77-88.

Sokólski, P., & Rutkowski, T. (2013). Hybrid of Neural Networks and Hidden Markov Models as a modern approach to speech recognition systems. , *Pomiary Automatyka Robotyka*, 17(2), 2013, 449-455.

FRI-2G.302-1-CSN-04

REGRESSION MODELS FOR PREDICTION OF PARAMETERS OF TELETRAFFIC SYSTEM M/M/1/K

Prof. Mihail Iliev, DcS
Telecommunications Department,
"Angel Kanchev" Univesity of Ruse
Tel.: 082-888 673
E-mail: miliev@uni-ruse.bg

Assoc. Prof. Ivelina Balabanova, PhD
Department of Communications Equipment and Technologies,
Technical University of Gabrovo
Phone: 0896 640 473
E-mail: ivstoeva@abv.bg

Eng. Georgi Georgiev, PhD Student
Telecommunications Department,
"Angel Kanchev" Univesity of Ruse
Phone: 0877 522 029
E-mail: givanow@abv.bg

Abstract: *In this paper presents the results in modeling and investigaton of Markov chain M / M / 1 / k as the object of experimental research related to obtaining models for predicting of the traffic parameters - Arrival Time and Exit System. A technical approach based on simulation of the system in defined parameters Average Arrival Rate, Average Service Time and Maximum Station Capacity and different types of design of experiments was applied. The best plan of experint is selected by regression analysis. Regression models for prediction of targeted teletraffic parameters were obtained.*

Keywords: *Design of Experiment, Markov Chain, Regression Analysis, Teletraffic Parameters, Regression Prediction Models*

REFERENCES

Damasio B., & Nicolau J. (2014). Combining a regression model with a multivariate Markov chain in a forecasting problem. ELSEVIER, Statistics and Probability Letters, (90), 108-113. URL: http://dx.doi.org/10.1016/j.spl.2014.03.026.

Damour G., & Lang Ph. (2015). Modelling Football as a Markov Process: Estimating

transition probabilities through regression analysis and investigating it's application to live betting markets. Royal Institute of Technology School of Engineering Sciences, 1-64, URL: http://www.kth.se/sci

Griffin J., Łatuszynski K., & Steel M. (2018). In Search of Lost (Mixing) Time: Adaptive Markov chain Monte Carlo schemes for Bayesian variable selection with very large p. Cornell University Library, Statistics, Computation, 1-29. URL: http://arxiv.org/abs/1708.05678.

Hindenes L. (2017). Modelling and analysis of health care services using regression and Markov models. Uit arctic university of norway, 1-151. URL: http://hdl.handle.net/10037/11302.

Kvam P., & Joel S. Sokol (2006). A Logistic Regression/Markov Chain Model For NCAA Basketball. Naval Research Logistics, (53), 1-25.

Noto, K., & Craven, M. (2008). Learning Hidden Markov Models for Regression using Path Aggregation. Uncertainty in Artificial Intelligence : Proceedings of the Conference on Uncertainty in Artificial Intelligence, 444–451.

Paton L., Troffaes M., Boatman N., Hussein M, & Hart A. (2014). Multinomial Logistic Regression on Markov Chains for Crop Rotation Modelling. Springer International Publishing Switzerland, IPMU, Part III, CCIS 444, 476-485.

Régis D., & Artes R. (2016). Using multi-state markov models to identify credit card risk. PRODUCTION, 26(2), 330-344. URL: http://dx.doi.org/10.1590/0103-6513.160814.

Sinha N., Islam M., & Ahamed K. (2011). Logistic Regression Models for Higher Order Transition Probabilities of Markov Chain for Analyzing the Occurrences of Daily Rainfall Data. Journal of Modern Applied Statistical Methods, 10(1), 337-348. URL: http://digitalcommons.-wayne.edu/jmasm.

Uchwat Ch., & MacLeod D. (2012). Case Studies of Regression and Markov Chain Models. Pavement Performance Case Studies Session of the 2012 Conference of the Transportation Association of Canada Fredericton, New Brunswick, 1-19.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.302-1-CSN-05

USE OF UNMANNED AERIAL VEHICLES FOR PHOTOGRAMMETRIC DATA GATHERING AND DIGITAL 3D RECONSTRUCTION OF ARCHAEOLOGICAL EXCAVATION SITES

Assoc. Prof. Georgi Hristov, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: ghristov@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Assist. Prof. Diyana Kinaneva, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: dkyuchukova@uni-ruse.bg

Assist. Prof. Ivanka Tsvetkova, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Phone: 082 888 836
E-mail: itsvetkova@uni-ruse.bg

Eng. Jordan Raychev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: jraychev@uni-ruse.bg

Abstract: *The modern unmanned aerial vehicles (UAVs) are equipped with cameras and sensor modules and compared to the traditional methods and approaches for remote sensing have many key advantages. They are very reliable and can function autonomously, but if needed, they can also be piloted by operators with limited experience. The UAVs can also be instructed to fly over any predefined geographic area and to do this at a specific speed or by maintaining a fixed flight altitude. These characteristics are of a great importance when the UAVs are used to obtain information, which will then be used for various purposes, including for crops and vegetation studies, ecological surveys, remote observations or for archaeological analyses. By studying the past using modern technologies, like the UAVs, the archaeologists can take full advantage of the new opportunities to survey and identify objects and artefacts using the remote sensing methods. These methods allow researchers to explore objects on the ground without the need to utilize invasive methods, while at the same time they can concentrate their research on a specific geographic area to maximize results. These remote sensing methods have been expensive and hard to access over the past decades, but with the development of the UAVs, they can now be used by small teams and in projects with limited funding. In this paper we present a complex methodology for obtaining, processing and analysis of digital images of archaeological excavations, which are performed with the help of UAVs. The paper presents also the main results from the processing of the data, which include georeferenced high-resolution ortho-photographic images, detailed digital surface models (DSM) and 3D models of the archaeological locations.*

Keywords: *UAV, Digital Photogrammetry, Digital Dense Map, 3D reconstruction, 3D Documentation, Excavation*

REFERENCES

Balletti, C., Guerra, F., Scocca, V. and Gottardi, C., (2015). 3d integrated methodologies for the documentation and the virtual reconstruction of an archaeological site. *The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences*, 40(5), 215.

FRI-2G.302-1-CSN-06

COMPARATIVE ANALYSIS OF TECHNOLOGIES FOR 3D LASER SCANNING OF OBJECTS

Assist. Prof. Ivanka Tsvetkova, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Phone: 082 888 836
E-mail: itsvetkova@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" Univesity of Ruse
Phone: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Assoc. Prof. Georgi Hristov, PhD
Department of Telecommunications,
"Angel Kanchev" Univesity of Ruse
Phone: 082 888 663
E-mail: ghristov@uni-ruse.bg

Abstract: *A 3D scanner is a device that analyses a real-world object or environment to collect data on its shape and possibly its appearance. The collected data can then be used to construct digital three-dimensional models, which can be processed and analysed. The final products of this digital scanning method are sets of point clouds of varying densities and accuracies. Processing of these point clouds requires the use of specialized software, which can produce 3D meshes, 3D surface models and 3D rendered models of varying resolutions. Whit the evolution of the 3D scanning technologies, three main categories of 3D scanners have emerged. In this paper we present, analyse, discuss and compare the different technologies for 3D scanning and we a provide real-life scenarios and case studies for the use of every one of them.*

Keywords: *3D scanning, 3D scanners, 3D technologies*

REFERENCES

Abdelhafiz, A. (2009). Integrating Digital Photogrammetry and Terrestrial Laser Scanning. Ph.D Dissertation, Nr 23, Braunschweig, ISBN 3-926146-18-4

Andriuskeviciute, I. (2010). Comparison of Short Range and Long Range Laser Scanner's Accuracy Differences, Bachelor Project

Ebrahim, M. A.-B. (2015). 3D Laser Scanners' Techniques Overview. International Journal of Science and Research, 4(10), 323-331

Geng, J. (2011). Structured-light 3D surface imaging: a tutorial. Advances in Optics and Photonics, 3(2), 128-160

Georgopoulos, A., Ioannidis, Ch., Valanis, A. (2010). Assessing the Performance of a Structured Light Scanner. ISPRS 2010, UK, XXXVIII, Part 5, 250-255

 Copyrights© http://conf.uni-ruse.bg

Liu, K., Wang, Y., Lau, D. L., Hao, Q., Hassebrook, L. G. (2010). Dual-frequency pattern scheme for high-speed 3-D shape measurement. Optics Express, 18(5), 5229–5244

Yu, F., Lu, Z., Luo, H., Wang, P. (2011). Three-Dimensional Model Analysis and Processing. Springer Science & Business Media

http://www.directindustry.com/prod/tesa/product-24600-537905.html

http://www.globalspec.com/learnmore/manufacturing_process_equipment/inspection_tools_instruments/dimensional_scanners

http://www.laserdesign.com/what-is-3d-scanning

FRI-2G.302-1-CSN-07

A SOLUTION FOR EARLY FOREST FIRE DETECTION USING AIRCRAFT PLATFORM AND NEURAL NETWORK COMPUTING ENGINE

Assist. Prof. Diyana Kinaneva, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: dkyuchukova@uni-ruse.bg

Eng. Jordan Raychev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: jraychev@uni-ruse.bg

Assoc. Prof. Georgi Hristov, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: ghristov@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Assist. Prof. Ivanka Tsvetkova, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Phone: 082 888 836
E-mail: itsvetkova@uni-ruse.bg

Abstract: *The goal of this paper is to make thorough analysis of the conceptual operating principle of neural networks. The neural networks are the hot topic in today's computing systems because of their ability to "learn" how to perform tasks by considering examples, generally without being programmed or instructed to follow specific rules. The neural networks are inspired by the biological neural networks that constitute human brains. In today's computing systems these networks become widely use in various aspects. The authors of this paper will make a review of how*

this technology can be implemented in a system for early fire detection. Forest and even urban fires have been and still are serious problem for many countries in the world. Different methods for early fire detection exist and they really help to mitigate fire damages but most of the early fire detection system are implemented inside and they prevent fire damages in close ranges. The planet may also suffer from outside fire damages. In order to decrease the damages from outside (forest or urban) fires we the humans need to implement different techniques. In this paper we present an emerging solution for early fire detection by using an aircraft platform that is capable of taking multiple photos or video of dedicated land fields that are susceptible to fires. All of the captured material are going to be used together with computer vision techniques to predict the existence of fire on the observed lands. Early fire detection could prevent a lot of fire related accidents. In order to implement computer vision technique we first need to train the neural network that we are going to use for making that predictions. Currently, on the market there are available solutions for neural network implementation. Such a solution is the Movidius neural stick which is a development kit for ultra-low power embedded deep learning environment developed by Intel.

Keywords: *Aircraft platform, Deep learning, Early fire detection, Neural networks*

REFERENCES

Rowley, H. A., Baluja, S., Kanade, T. (1998). Neural network-based face detection. IEEE Transactions on pattern analysis and machine intelligence 20.1, 23-38.

FRI-2G.302-1-CSN-08

OBSERVATION AND ANALYSIS OF REMOTE FOREST AREAS AND EARLY FOREST FIRE DETECTION USING DRONES

Assoc. Prof. Georgi Hristov, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: ghristov@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Eng. Jordan Raychev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: jraychev@uni-ruse.bg

Assist. Prof. Diyana Kinaneva, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: dkyuchukova@uni-ruse.bg

Eng. Todor Gechev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse

 Copyrights© http://conf.uni-ruse.bg

Tel.: 082 888 663
E-mail: tocky@nrjsoft.com

Abstract: *The unmanned aerial vehicles (UAVs), sometimes simply referred to as drones, are becoming increasingly popular. Recent technological and scientific advances in the manufacturing processes have led to significant reduction in the drone prices and have made them simpler to control, use and maintain. Besides being used for capturing of aerial photos and videos, the unmanned aerial vehicles are also being implemented in and for various other activities and processes. One of them is for observation and analysis of remote or hard to reach zones, where the drones are replacing the conventional aircrafts or the satellite technologies. Nature parks, forest agencies and even governmental institutions have taken advantage of this technology and are now using UAVs to perform vegetation analysis, to detect poachers, to fight invasive species of animals and plans, to observe remote forest areas or to develop systems for early forest fire detection. In this paper, we provide analysis on the UAVs applications, in terms of their use specifically for observation and analysis of forest areas. We present briefly the structure and the components of the UAVs and then continue with their potential payload, which can range from a simple camera to a sophisticated sensor system for multispectral analysis. The paper continues with an actual analysis of a forest area, which is part of the Rusenski Lom Nature Park in Bulgaria. We further investigate also the possibility for implementation of drones for early forest fire detection in the Balkan-Mediterranean area and we analyse and present a solution based on several different types of UAVs.*

Keywords: *Unmanned aerial vehicles, drones, forest fires, 3D and digital surface models, location analyses*

REFERENCES

Hristov, G., Zahariev, P., & Beloev, I. (2016). A Review of the Characteristics of Modern Unmanned Aerial Vehicles, Acta Technologica Agriculturae, 19(2), 33-38, doi: https://doi.org/10.1515/ata-2016-0008.

Keane, J. F., Carr S. S. (2013). A brief history of early-unmanned aircraft. In Autonomous Systems, The Johns Hopkins University Applied Physics Laboratory, 32(3)

Krüll, W., Tobera, R., Willms, I., Essen, H., Wahl, N. V. (2012). Early Forest Fire Detection and Verification Using Optical Smoke, Gas and Microwave Sensors. Procedia Engineering, 45, 584-594

Moulianitis, V. C., Thanellas, G., Xanthopoulos, N., Aspragathos, N. A. (2018). Evaluation of UAV based schemes for forest fire monitoring. 27th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2018

Official webpage of the ALTi Transition VTOL UAV at:

https://www.altiuas.com/transition/

Official webpage of the DJI Matrice 200 series of UAVs at:

https://www.dji.com/matrice-200-series

Official webpage of the DJI Matrice 600 Pro UAV at:

https://www.dji.com/matrice600-pro

Project SFEDA page at: http://www.interreg-balkanmed.eu/approved-project/22/

Yuan, C., Zhang, Y., Liu, Z. (2015). A Survey on Technologies for Automatic Forest Fire Monitoring, Detection and Fighting Using UAVs and Remote Sensing Techniques. Canadian Journal of Forest Research, doi: 10.1139/cjfr-2014-0347

FRI-2G.302-1-CSN-09

A METHODOLOGY FOR ENVIRONMENTAL AND AIR QUALITY MONITORING USING LORAWAN SENSOR PLATFORMS

Assoc. Prof. Georgi Hristov, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: ghristov@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Eng. Jordan Raychev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: jraychev@uni-ruse.bg

Assist. Prof. Diyana Kinaneva, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: dkyuchukova@uni-ruse.bg

Eng. Ivan Mihov, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: i_mihov@abv.bg

Abstract: *The paper presents a methodology for the use of small, compact and low-power wireless sensor devices to obtain data about various environmental and air quality parameters. The introduction section of the paper provides a brief overview of the technology trends in the sensor systems and a short analysis on the most significant reasons and the most important parameters for air quality and environmental monitoring. The paper continues with a comparative analysis on the telecommunication standards for low-power wireless communications, which are used in the modern sensor systems. The focus of the next section is on the presented methodology for environmental and air quality monitoring. Detailed specifications and guidelines for the development of LoRaWAN sensor platforms for air quality and environmental analysis are also provided and the benefits from their use are shortly discussed.*

Keywords: *Air quality monitoring, environmental monitoring, sensor systems and networks, LoRaWAN*

REFERENCES

Borgia, E. (2014). The Internet of Things vision: Key features, applications and open issues. Computer Communications, 54, 1-31, ISSN 0140-3664, https://doi.org/10.1016/j.comcom.-2014.09.008

Centenaro, M., Vangelista, L., Zanella, A., Zorzi, M. (2016). Longrange communications in unlicensed bands: the rising stars in the IoT and smart city scenarios. IEEE Wireless Communications, 23(5), 60-67

 Copyrights© http://conf.uni-ruse.bg

Clements, A. L., Griswold, W. G., Abhijit, R. S., Johnston, J. E., Herting, M. M., Thorson, J., Collier-Oxandale, A., Hannigan, M. (2017). Low-Cost Air Quality Monitoring Tools: From Research to Practice (A Workshop Summary). Sensors Journal, 17(11), 2478; DOI: https://doi.org/10.3390/s17112478

Liu, S., Xia, C., Zhao, Z. (2016). A Low-power Real-time Air Quality Monitoring System Using LPWAN based on LoRa, 13th IEEE International Conference on Solid-State and Integrated Circuit Technology (ICSICT), 3-5

Luvisotto, M., Tramarin, F., Vangelista, L., Vitturi, S. (2018). On the Use of LoRaWAN for Indoor Industrial IoT Applications. Wireless Communications and Mobile Computing, Article ID 3982646, 11 pages, https://doi.org/10.1155/2018/3982646

Saari, M., Baharudin, A. M., Hyrynsalmi, S. (2017). Survey of prototyping solutions utilizing Raspberry Pi. 40th International Convention on Information and Communication Technology Electronics and Microelectronics MIPRO 2017 - Proceedings 2017

Saha, D., Shinde, M., Thadeshwar, S. (2017). IoT based air quality monitoring system using wireless sensors deployed in public bus services. In Proceedings of the Second International Conference on Internet of things, Data and Cloud Computing (ICC '17). ACM, New York, NY, USA, Article 87, 6 pages, DOI: https://doi.org/10.1145/3018896.3025135

Snyder, E. G., Watkins, T. H., Solomon, P. A., Thoma, E. D., Williams, R. W., Hagler, G. S., Shelow, D., Hindin, D. A., Kilaru, V. J., Preuss, P. W. (2013). The changing paradigm of air pollution monitoring. Environmental science & technology, Oct 15, 47(20), 11369

FRI-2G.302-1-CSN-10

CONCEPTUAL MODEL OF A HARDWARE PLATFORM FOR DEVELOPMENT OF COMPLETE SOLUTIONS FOR HOME AUTOMATION

Assoc. Prof. Georgi Hristov, PhD
Department of Telecommunications,
“Angel Kanchev” University of Ruse
Tel.: 082 888 663
E-mail: ghristov@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
“Angel Kanchev” University of Ruse
Tel.: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Eng. Todor Gechev, PhD Student
Department of Telecommunications,
“Angel Kanchev” University of Ruse
Tel.: 082 888 663
E-mail: tocky@nrjsoft.com

Eng. Ivan Mihov, PhD Student
Department of Telecommunications,

"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: i_mihov@abv.bg

Eng. Jordan Raychev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353 / +359884979934
E-mail: jraychev@uni-ruse.bg

Abstract: *The evolution of the embedded technologies and the improvement of the communication systems allowed the integration of numerous applications directly on the end devices used for home automation. The development of energy-efficient IP communication protocols, such as the 6LoWPAN protocol, is a prerequisite for the discovery of new connectivity options to link heterogeneous sensor devices. A major challenge for the integration of these protocols is the need for transformation and modification of the end devices, for extension of their capabilities and for assuring their accessibility trough services and applications from the upper layers of the telecommunication stacks and models. This paper presents a conceptual model of a platform for development of complete solutions for home automation. Besides the description of the hardware components of the platform, the paper also provides an analysis on the protocol stacks, which are assuring its modular functionality.*

Keywords: *IoT, Building automation, Automation infrastructure, Information Systems and Conceptual Modeling;*

REFERENCES

Brambley, M., Hansen, D., Haves, P., Holmberg, D., McDonald, S., Roth, K. et al. (2005). Advanced sensors and controls for building applications: market assessment and potential R&D pathways. PNNL-15149, Technical report, Prepared for the U.S. Department of Energy by Pacific Northwest National Laboratory2005

Veichtlbauer, A., Pfeiffenberger, T. (2012). U.S., *Generic control architecture for heterogeneous building automation applications*, SENSORCOMM 2012: The Sixth International Conference on Sensor Technologies and Applications 2012, 148–153

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.302-1-CSN-11

A COMPARATIVE ANALYSIS OF SOFTWARE DEFINED NETWORKING CONTROLLERS

Eng. Jordan Raychev
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353 / +359884979934
E-mail: jraychev@uni-ruse.bg

Abstract: *Software defined networking (SDN) is an emerging paradigm that plays an important role into networks within the networking research field. The SDN technology provides a possibility to decouple the control plane from the physical plane of networking devices, while traditional telecommunication equipment encompasses both the control and data planes into a single device. All of the decoupled control function are implemented in a single centralized server called a SDN controller, making it the only device that could control the network as a whole entity. The centralized management approach has proven its benefits over the past several years. On good example about that is the server virtualization technology. Like the SDN technology, the server virtualization allows server administrators to manage tens even hundred virtual machines from a single instance called a hypervisor.*

The objective of this paper is to show how the two technologies can co-exists in a single environment and how they can benefits from each other. In an addition to that a comparative analysis is going to be conducted in order to show how different SDN instances (controllers) handle the network traffic and how network resources are affected by that. In order to achieve the objective, a virtual test laboratory is going to be built on top of type one hypervisor. The virtual test laboratory is going to be comprised of several components – a management platform that serves as a single point of management, a control plane (a virtual instance of a SDN controller that has the ability to adapt to changes in network behavior) and a data plane (a virtual representation of a software-defined networking data plane). The objective of the comparative analysis is to show how different SDN controller behave under various types of load – change in traffic volume by a single device, change in traffic volume from multiple sources and so on.

Keywords: *Comparative SDN analysis, Network virtualization, Server virtualization, Software-defined networking*

REFERENCES

Heller, B., Sherwood, R., & McKeown, N. (2012, August). The controller placement problem. In Proceedings of the first workshop on Hot topics in software defined networks, ACM, 7-12

McKeown, N., Anderson, T., Balakrishnan, H., Parulkar, G., Peterson, L., Rexford, J., Turner, J. (2008). OpenFlow: enabling innovation in campus networks. ACM SIGCOMM Computer Communication Review, 38(2), 69-74

OPEN NETWORK FOUNDATION. (2012). Software-Defined Networking: The New Norm for Networks, ONF White Paper, April 13.

Razaa, M. H., Sivakumarb, S. C., Nafarieha, A., Robertsona, B. (2014). A Comparison of Software Defined Network (SDN) Implementation Strategies. 2nd International Workshop on Survivable and Robust Optical Networks (IWSRON), Procedia Computer Science 32, 1050 – 1055

Tootoonchian, A., Gorbunov, S., Ganjali, Y., Casado, M., & Sherwood, R. (2012). On Controller Performance in Software-Defined Networks. Hot-ICE, 12, 1-6

FRI-2G.302-1-CSN-12

ANALYSIS OF DIFFERENT ANTENNA TYPES FOR WIRELESS COMMUNICATIONS USING A LABORATORY TESTBED

Assist. Prof. Ivanka Tsvetkova, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Phone: 082 888 836
E-mail: itsvetkova@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" Univesity of Ruse
Phone: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Abstract: *Antennas are integral parts of every radio-communication device. Throughout the years the antennas have evolved in size and functionality and have found their place in many different applications - from commercial devices, like mobile phones and tablets, trough RFID tags and wireless printers to defence applications, such as phased array antennas for aircraft radar systems or in satellite-based systems where they are used in the integrated ground based communication systems. To decide whether a specific type of an antenna is suitable for a given application, its basic parameter need to be measured and then compared to the results obtained from similar evaluations of different other antenna types. In this paper, we present analyses on different antenna types using only the free-space propagation model and the corresponding measurements. To evaluate the antenna parameters the RadPat software and a RF analyser are used. The software evaluation product is then connected to an Agilent N9912A FieldFox RF analyzer and to a RF detector to form a laboratory antenna testbed. This testbed is capable of rotating the receiver module antenna and by doing this it also displays the antenna angular position and the obtained measurements. Based on this evaluation testbed we have evaluated several different types of antennas and we have provided analysis on the received results.*

Keywords: *Antennas, RadPAd software, RF analyzer, Free-space propagation*

REFERENCES

Azarmanesh, M., Soltani, S. and Lotfi, P., (2011). Design of an ultra-wideband monopole antenna with WiMAX, C and wireless local area network band notches. IET Microwaves, Antenna & Propagation. 5(6): 728-733.

Balanis, C. A., (2016). Antenna Theory: Analysis and Design. John Wiley and Sons. 4th Edition. ISBN: 978-1-118-64206-1

Hanumante, V., Roy S., (2013). Comparative Study of Microstrip Patch Antenna Using Different Dielectric Materials. 9th International Conference on Microwaves, Antenna, Propagation and Remote Sensing ICMARS-2013, 11th – 14th December, Jodhpur, INDIA.

Huang, C. Y., Jeng, B. M. and Yang, C. F., (2008). Wideband monopole antenna for DVB-T applications. Electronic Letters. 44(25): 1448-1450.

Huang, Y., Boyle, K. (2008). Antennas: from theory to practice. John Wiley and Sons. ISBN 978-0-470-51028-5

Sim, D. U., Moon, J. I. and Park S. O., (2004). A wideband monopole antenna for PCS/IMT-2000/Bluetooth applications. IEEE Antenna and Wireless Propagation Letters. 3: 45-47.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.302-1-CSN-13

DEVELOPMENT AND EVALUATION OF AN URBAN CONCEPT VEHICLE POWERED BY ALTERNATIVE FUEL SOURCE

Assoc. Prof. Georgi Hristov, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: ghristov@uni-ruse.bg

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Eng. Jordan Raychev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: jraychev@uni-ruse.bg

Assist. Prof. Diyana Kinaneva, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: dkyuchukova@uni-ruse.bg

Assist. Prof. Ivanka Tsvetkova, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Phone: 082 888 836
E-mail: itsvetkova@uni-ruse.bg

Abstract: *The vehicles powered by internal combustion engines (ICE) are one of the primary factors for air pollution. The pollutants released by these vehicles, such as particulate matter (PM), ozone, nitrogen dioxide, carbon, monoxide, sulphur dioxide are responsible for a number of adverse environmental effects. To reduce the levels of harmful emissions and to minimize the noise pollution, many leading countries have started pilot project and initiatives for the gradual transition to electrical vehicles or vehicles powered by alternative fuel sources, including natural gas, hydrogen, propane, biofuels and methanol. The focus of this paper is to present the design, development and evaluation stages from the construction process of a hydrogen fuel cell powered vehicle, which is being created by students from the University of Ruse, Bulgaria. In the paper we discus some of the most important stages from the design process, including the evaluation of the forces acting on the moving vehicle, including the air resistance, the rolling drag, the grade and curve resistance. Based on the evaluation of these parameters, we continue the paper with the selection of the main electric components of the vehicle, namely the electric motors, the fuel cell, the drivers for the motors and others and we also discuss the design of the drivetrain – the system that delivers the power to the driving wheels. The selection of the right components is an important step in the construction process, as the prototype of the vehicle is expected to maintain an average speed of 35 km/h in order to achieve optimal results and to successfully participate in the urban-concept category of the 2018 Shell Eco-marathon event in Europe.*

Keywords: *Alternative fuel sources, Electric vehicles, Hydrogen fuel cell, Vehicle prototype*

REFERENCES

Guzzella, L., Sciarretta, A. (2005). Vehicle Propulsion Systems - Introduction to Modeling and Optimization, Springer, Zurich

Mohan, N., Undeland, T. M., Robbins, W. P. (2003). POWER ELECTRONICS, Converters, Applications and Design, 3rd edition, John Wiley & Sons, Inc. Hoboken, New Jersey

FRI-2G.302-1-CSN-14

OVERVIEW OF THE BLOCKCHAIN TECHNOLOGIES AND THEIR USE IN THE TELECOMMUNICATION SYSTEMS AND PROCESSES

Assoc. Prof. Plamen Zahariev, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 663
E-mail: pzahariev@uni-ruse.bg

Eng. Jordan Raychev, PhD Student
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: jraychev@uni-ruse.bg

Assist. Prof. Diyana Kinaneva, PhD
Department of Telecommunications,
"Angel Kanchev" University of Ruse
Tel.: 082 888 353
E-mail: dkyuchukova@uni-ruse.bg

Abstract: *The blockchain technology is not a new paradigm, but with the global adoption of the cryptocurrencies, this almost three decades old technology has been reborn and is now again on the rise. Initially considered as a technology for decentralised control and security, the blockchain is now being used also for electronic voting systems, auctions, bank transaction and most widely for untraceable and secure Internet payments. What is little known to the public is the fact that the blockchain technology originated as an alternative to the widely known and used at the time cryptographic solutions for protection of the data, which was transmitted over the telecommunication networks. The paper introduces some of the most widely known application areas for the blockchain technology. A special focus is set on the implementation of this technology in the telecommunication systems and networks. The paper also investigates the ways the blockchain technology is currently being used for educational purposes and for research initiatives.*

Keywords: *blockchain, cryptocurrencies, telecommunication networks, AES, bitcoin*

REFERENCES

Ali, M., Miraz, M. H. (2013). Cloud Computing Applications. International Conference on Cloud Computing and eGovernance - ICCCEG 2013, Internet City, Dubai, United Arab Emirates, 1-8

Christidis, K., Devetsikiotis, M. (2016). Blockchains and smart contracts for the internet of things. IEEE Access, 4, 2292–2303

Danzi, P. et al. (2017). Distributed proportional-fairness control in microgrids via blockchain smart contracts. 2017 IEEE International Conference on Smart Grid Communications (SmartGridComm)

Dorriet, A. al. (2017). Towards an optimized blockchain for IoT. Second International Conference on Internet-of-Things Design and Implementation, ACM, 173–178

Eibl, G., Engel, D. (2015). Influence of data granularity on smart meter privacy. IEEE Transactions on Smart Grid, 6(2), 930–939

Heilman, E. et al. (2015). Eclipse attacks on bitcoin's peer-to-peer network. USENIX Security, 129–144

Merkle, R. C. (1987). A digital signature based on a conventional encryption function.

 Copyrights© http://conf.uni-ruse.bg

Conference on the Theory and Application of Cryptographic Techniques, Springer, 369–378

Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. Available: https://bitcoin.org/bitcoin.pdf

Narayanan, A. et al. (2016). Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction. Princeton University Press

Underwood, S. (2016). Blockchain Beyond Bitcoin. Communications of the ACM, 59(11), 15-17, DOI: https://doi.org/10.1145/2994581

Wood, G. (2014). Ethereum: A secure decentralised generalised transactionledger. Available: http://gavwood.com/paper.pdf

FRI-2G.302-1-CSN-15

BIG DATA LIFECYCLE IN MODERN WEB SYSTEMS

Svetalana Stefanova, PhD
Department of Electrical Engineering, Electronics and Automation,
"Angel Kanchev" University of Ruse
Tel.: +359 888 309 579
E-mail: sstefanova@ecs.uni-ruse.bg

Iliya Draganov
Department of Electrical Engineering, Eelectronics and Automation,
"Angel Kanchev" University of Ruse
Phone: +359 883 476 542
E-mail: idraganov@uni-ruse.bg

Abstract: *The paper is reviewing proposed or existing life cycles of Big Data, and analyses their universality and versatility when applied in modern web-based systems. Every single web application or service is generating on its own the actual life cycle of the data that it is processing. Those cycles have in common a lot of stages, that are in turn organised in groups, in order to form the web system's software architecture. With the technological advancement of web software and hardware, new points of view are emerging regarding the connection between web systems' architecture and Big Data life cycles. The number of web systems, which automatically process data and communicate with other systems similar to them, is growing significantly, which demands reviewing the approach used when handling Big Data.*

Keywords: *Big Data, Lifecycle, Web Systems, Review, Data Processing*

JEL Codes: *L10, L11*

REFERENCES

Chisholm, M. (2015). 7 phases of a data life cycle, Data Governance. Bloomberg Professional Services. URL: https://www.bloomberg.com/professional/blog/7-phases-of-a-data-life-cycle/ (Accessed on 17.08.2018)

Nathan, B., & Raju, P. (2018) The Data Life Cycle, Strategic Finance Magazine, URL: http://sfmagazine.com/post-entry/july-2018-the-data-life-cycle/ (Accessed on 14.09.2018).

Nawsher, K., (2014). Big Data: Survey, Technologies, Opportunities, and Challenges. The Scientific World Journal Volume 2014, Article ID 712826, 18 pages

Wing, J., (2018). The Data Life Cycle, Data Science Institute. Columbia University in the City of New York. URL: https://datascience.columbia.edu/data-life-cycle (Accessed on 17.08.2018)

FRI-2.203-1-TMS

FRI-2.203-1-TMS-01

OPPORTUNITIES FOR WORK AND DISTRIBUTION OF TECHNICAL DOCUMENTATION IN SMALL MACHINE-BUILDING COMPANIES

Assist. prof. Yuliyan Dimitrov , PhD
Faculty of Transport,
Department of Mechanics, Machine Elements and Engineering graphics
"Angel Kanchev" University of Ruse
Phone: +359888491
E-mail: ydimitrov@uni-ruse.bg

Abstract: *The paper reviews existing methods of working with technical and design documentation in machine-building firms. The advantages and disadvantages of the different methods in line with the conditions in the small and medium-sized enterprises are examined. The report presents a solution for work and dissemination of technical documentation developed by a team by the author of the report and representatives of a small private machine building company. A comparative analysis of the advantages and disadvantages of the proposed solution has been made, which has been developed specifically for small and medium-sized enterprises. The developed system is registered in the Patent Office of the Republic of Bulgaria with a Utility model.*

Keywords: *drawing, CAD systems, engineers, training, technical documentation*

JEL Codes: *L10, L11*

REFERENCES

Каменов Кр.(2012). Контурният анализ – възможности за извличане на информация от машиностроителни чертежи. Научни трудове на Русенския университет, Русе, 2012

Лепаров М., К.Каменов. (2004) Инженерен анализ на техническа документация. НАУЧНИ ТРУДОВЕ, ТОМ 41, СЕРИЯ 4, Русе, 2004, стр. 197-201

Каменов К. (2013) Приложение на OCR софтуер с отворен код при разпознаване на графични символи от машиностроителни чертежи. НК РУ, Русе, 2013

http://cio.bg/2068_pdm_sistemite__osnovna_koncepciya_i_prilozhenie.0 (Accessed on 04. 09.2018)

http://www.spacecad.bg/plm-i-erp (Accessed on 12.09.2018)

https://searcherp.techtarget.com/definition/product-data-management-PDM (Accessed on 05.09. 2018)

http://www.netsuite.com/portal/resource/articles/erp/what-is-erp.shtml (Accessed on 09.09. 2018)

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-1-TMS-02

METHODS FOR CALCULATING POWER LOSSES IN WORM GEAR DRIVES

Assoc. Prof. Vasko Dobrev, PhD
Department of Machine Science, Machine Elements and Engineering graphics,
University of Ruse, Bulgaria
Tel.: 00 359 82 888 492
E-mail: vdobrev@uni-ruse.bg

Yuliyan Dimitrov, PhD
Department of Machine Science, Machine Elements and Engineering graphics,
University of Ruse, Bulgaria
Tel.: 00 359 82 888 235
E-mail: ydimitrov@uni-ruse.bg

Abstract: *The paper reviews existing methods of calculating power losses in worm gear drives. It analyses the differences between the methods taken into consideration. Special attention is given to calculation procedure for estimation friction coefficients of worm gear meshing. The purpose of this procedure was to determine the coefficients based upon boundary and hydrodynamic lubrication. A short summary of the existing information about values of power losses for worm gear drives in standards and catalogues is made. Based on the theoretical research made, conclusions are derived about further work and investigations in the area of research of power losses and possible efficiency increasing of worm gearboxes.*

Keywords: *Power losses, Worm gear drives, Efficiency, Calculation methods.*

JEL Codes: *Q49*

REFERENCES

Anderson, N. E. & Loewenthal, S. H. (1981). Effect of geometry and operating conditions on spur gear system power loss, ASME J. Mech. Des., 103, 151–159.

Dereyne, S., Stockman, K., Derammelaere, S. & Defreyne, P. (2011). Adjustable Speed Drive Evaluation Using ISO Efficiency Maps, Technical University College of West-Flanders – associated with Ghent University, EEMODS 2011, Washington.

Dereyne, S., Defreyne, P., Algoet, E., Derammelaere, S. & Stockman, K. (2016). Efficiency measurement campaign on gearboxes, Report of Ghent University, Campus Kortrijk, Department of Industrial System and Product Design, Belgium

DIN 3996 (2012). Tragfähigkeitsberechnung von Zylinder- Schneckengetrieben mit sich rechtwinklig kreuzenden Achsen. Berlin: Beuth – Verlag.

Dobreva, A. (2013). Theoretical Investigation of the Energy Efficiency of Planetary Gear Trains.// IN: POWER TRANSMISSIONS, Sinaia, ROMANIA, Springer Verlag Dordreeht, 289-298.

Dobreva, A. & Dobrev, V. (2007). Research of Technical Parameters of Transmissions for Vehicles and Agricultural Machines.// UPB: Scientific Bulletin, Series D: Mechanical Engineering, No 69, pp. 103 – 109.

Dobreva, A. & Dobrev, V. (2018). Innovative Methodology for Decreasing Mechanical Losses in Vehicles. AMMA 2018, The Fourth International Congress of Automotive and Transport Engineering, Technical University of Cluj-Napoca, October 17, 2018 – October 19, 2018.

Dobreva, A., Dobrev, V. & Georgiev, G. (2010). Innovative Design Solutions of Spur and Planetary Gear Trains with Increased Energy Efficiency and Improved Load Distribution. In: Scientific woks of University of Ruse, Vol 49 (4), Ruse, Printing House of RU, pp 116 – 120.

Dobreva, A. & Stoyanov, S. (2012). Optimization Research of Gear Trains with Internal Meshing. Ruse, University Publishing Centre, pp. 144.

Höhn, B.R., Michaelis K., Wimmer A. (2007) Low loss gears, Gear technology magazine, 6, 55-59.

Magyar, B. & Sauer, B. (2012). Calculation of the Efficiency of Worm Gear Drives. Power Transmission Engineering, 6, 52 – 26.

Michaelis, K., Höhn, B.-R. & Hinterstoißer, M. (2011). Influence factors on gearbox power loss, Ind. Lubr. Tribol., 63, 46–55.

Orzech, K., Khoshaba, S. & Dobreva, A. (2009). Development and Design of a Two Speed Transfer Gearbox for a Truck. IN: Proceedings of GENERAL MACHINE DESIGN 2009, Ruse, Printing House of RU, 177 – 180.

Stockman, K., Dereyne, S., Vanhooydonck, D., Symens, W., Lemmens, J. & Deprez, W. (2010). ISO efficiency contour measurements results for variable speed drives, Technical University College of West-Flanders – associated with Ghent University, International Conference on Electrical Machines and Systems, ICEMS 2009, Rome.

Velex, P. & Cahouet, V. (2000). Experimental and numerical investigations on the influence of tooth friction in spur and helical gear dynamics, ASME J. Mech. Des., 122, 515–522.

Yenti, C., Phongsupasamit, S. & Ratanasumawong, C. (2013). Analytical and Experimental Investigation of Parameters Affecting Sliding Loss in a Spur Gear Pair, Engineering Journal, 17, (1), 79–94.

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-1-TMS-03

METHODS FOR EXPERIMENTAL RESEARCH OF WORM GEAR DRIVES [2]

Assoc. Prof. Vasko Dobrev, PhD
Department of Machine Science, Machine Elements and Engineering graphics,
University of Ruse, Bulgaria
Tel.: 00 359 82 888 492
E-mail: vdobrev@uni-ruse.bg

Yuliyan Dimitrov, PhD
Department of Machine Science, Machine Elements and Engineering graphics,
University of Ruse, Bulgaria
Tel.: 00 359 82 888 235
E-mail: ydimitrov@uni-ruse.bg

Abstract: *The paper reviews existing methods of experimental research of worm gear drives. It analyses the differences between the methods taken into consideration. Special attention is given to possible procedures for elaboration of new test machines for experimental investigation of power losses in worm gear meshing. The purpose of this procedure is to lead to possible determination of the friction. Based on the theoretical research made, conclusions are derived about further work and investigations in the area of experimental research of power losses and possible efficiency increasing of worm gearboxes.*

Keywords: *Power losses, Worm gear drives, Efficiency, Experimental research.*

JEL Codes: *Q49*

REFERENCES

Dobreva, A. & Dobrev, V. (2007). Research of Technical Parameters of Transmissions for Vehicles and Agricultural Machines.// UPB: Scientific Bulletin, Series D: Mechanical Engineering, No 69, pp. 103 – 109.

Dobreva, A. & Dobrev, V. (2018). Innovative Methodology for Decreasing Mechanical Losses in Vehicles. AMMA 2018, The Fourth International Congress of Automotive and Transport Engineering, Technical University of Cluj-Napoca, October 17, 2018 – October 19, 2018.

Dobreva, A., Dobrev, V. & Georgiev, G. (2010). Innovative Design Solutions of Spur and Planetary Gear Trains with Increased Energy Efficiency and Improved Load Distribution. In: Scientific woks of University of Ruse, Vol 49 (4), Ruse, Printing House of RU, pp 116 – 120.

Dobreva, A. & Stoyanov, S. (2012). Optimization Research of Gear Trains with Internal Meshing. Ruse, University Publishing Centre, pp. 144.

Michaelis, K., Höhn, B.-R. & Hinterstoißer, M. (2011). Influence factors on gearbox power loss, Ind. Lubr. Tribol., 63, 46–55.

Velex, P. & Cahouet, V. (2000). Experimental and numerical investigations on the influence of tooth friction in spur and helical gear dynamics, ASME J. Mech. Des., 122, 515–522.

Yenti, C., Phongsupasamit, S. & Ratanasumawong, C. (2013). Analytical and Experimental Investigation of Parameters Affecting Sliding Loss in a Spur Gear Pair, Engineering Journal, 17, (1), 79–94.

[2] Presented on October 26, 2018 with the original title: Methods for Experimental Research of Worm Gear Drives

FRI-2.203-1-TMS-04

DIFFERENCES IN CALCULATIONS OF INVOLUTE GEAR TRAINS IN THREE MAIN STANDARDS

Gergana Mollova – PhD Student
Department of Machine Science, Machine Elements and Engineering Graphics,
University of Ruse"Angel Kanchev"
Tel.: +359898724847
E-mail: gergana_mollova@yahoo.co.uk

Prof. Antoaneta Dobreva, PhD
Department of Machine Science, Machine Elements and Engineering Graphics,
University of Ruse"Angel Kanchev"
Tel.: +359887746311
E-mail: adobreva@uni-ruse.bg

Abstract: *Mechanical gear trains are important driving components in different mechanisms and machines. Their wide application is imposed by different design reasons: motion transmission under a certain angle, splitting and summation of movements, necessity of ensuring a certain value of a gear ratio, etc. Mechanical gear trains transmit rotational movement between shafts changing the rotational frequency and the torque value transmitted. The strength calculations are very important concerning the functions of these gear trains. Due to the forces acting in the spur and helical gear trains, bending and contact stresses occur. The strength calculations of spur and helical involute gear trains in Bulgaria are to be implemented according to the state standard BSS 17108 – 89 (Bulgarian State Standard). Because of the national economic circumstances during some decades in the past, a great number of Bulgarian enterprises and companies still use the Russian standard for cylindrical spur and helical involute gear trains GOST 21354-87. The changes in Bulgarian industry markets impose the application of the International standard ISO 6336, which is also valid for the strength calculation of cylindrical spur and helical involute gear trains.*

Keywords: *Gear trains, Design considerations, Strength calculations, Main differences in standards*

JEL Codes: *Q49*

REFERENCES

БДС 8540-84. (1984). Предавки зъбни. Общи термини. Определения и означения. София.

БДС 17108-89. (1989). Предавки зъбни, цилиндрични, еволвентни с външно зацепване. Якостно изчисляване на зъбите. София.

ГОСТ 21354-87. (1987). Передачи зубчатые цилиндрические эвольвентные внешнего зацепления. Расчет на прочность. Москва.

Рощина, Г.И. & Самойлова, Е.А. (2012). Детали машин и основы конструирования

ISO 6336. (2006). Calculation of load capacity of spur and helical gears: Basic principles

ISO 6336. (2006). Calculation of load capacity of spur and helical gears: Pitting.

ISO 6336. (2006). Calculation of load capacity of spur and helical gears: Bending.

Dobreva, A. (2013). Theoretical Investigation of the Energy Efficiency of Planetary Gear Trains.// IN: POWER TRANSMISSIONS, Sinaia, ROMANIA, Springer Verlag Dordreeht, 289-298.

Dobreva, A. & Dobrev, V. (2007). Research of Technical Parameters of Transmissions for Vehicles and Agricultural Machines.// UPB: Scientific Bulletin, Series D: Mechanical Engineering, No 69, pp. 103 – 109.

Dobreva, A. & Dobrev, V. (2018). Innovative Methodology for Decreasing Mechanical Losses in Vehicles. AMMA 2018, The Fourth International Congress of Automotive and Transport Engineering, Technical University of Cluj-Napoca, October 17, 2018 – October 19, 2018.

 Copyrights© http://conf.uni-ruse.bg

Dobreva, A., Dobrev, V. & Georgiev, G. (2010). Innovative Design Solutions of Spur and Planetary Gear Trains with Increased Energy Efficiency and Improved Load Distribution. In: Scientific woks of University of Ruse, Vol 49 (4), Ruse, Printing House of RU, pp 116 – 120.

Dobreva, A. & Stoyanov, S. (2012). Optimization Research of Gear Trains with Internal Meshing. Ruse, University Publishing Centre, pp. 144.

Stoyanov, S., Dobrev, V. & A. Dobreva. (2017). Finite Element Contact Modelling of Planetary Gear Trains.// Material Science and Engineeering, IOP Publishing, , No 252, 012034 – 38.

FRI-2.203-1-TMS-05

STUDY THE FATIGUE STRENGTH OF WELDED SUSPENSION FOR A ELECTROMOBILE PROTOTYPE

Assist. Prof. Ivo Draganov, PhD
Department of Technical Mechanics,
Univesity of Ruse, Bulgaria
Phone: 082 888 224
E-mail: iivanov@uni-ruse.bg

Eng. Stiliyana Mileva
Department of Technical Mechanics,
Univesity of Ruse, Bulgaria
Phone: 082 888 513
E-mail: smileva@uni-ruse.bg

Abstract: *The paper presents a finite element model and investigation of fatigue strength of welded suspension for a electromobile prototype. The Submodell and R1MS technics are used. The influence of the size of the welded seam is investigated. The fatigue life of the suspension is predicted for specific geometry and material properties.*

Keywords: *Welded Vehicle Suspencion, Finite Element Analysis, Fatigue Strength, R1MS*

REFERENCES

ABAQUS Analysis User's Manual, ver. 6.12, Dassault Systemes Simulia Corp., Providence, RI, USA.

Cormier N., B. Smallwood, G. Sinclair, G. Meda. (1999). Aggressive Submodelling of Stress Concentrations. International Journal for Numerical Methods in Engineering 46, p. 889-909.

Gelev A., J. Kostadinov. (1984). Welding structures. Part II. Strength assessment. Government publisher "Tehnika", Sofia. (***Оригинално заглавие****: Желев А., Й. Костадинов. 1984. Заварени конструкции. Том II. Якостни оценки. Държавно издателство „Техника", София*).

Fricke W. (2007). Round-Robin Study on Stress Analysis for the Effective Notch Stress Approach. Welding in the World, Volume 51, Issue 3, pp 68–79.

Halaszi C., C. Gaier, H. Dannbauer, K. Hofwimmer. (2006). Fatigue Analysis of Welding Seams in Automotive Structures. Arabian Journal for Science and Engineering, Vol.31, No.2, p. 63-76.

Hobbacher A. Recommendations for Fatigue Design of Welded Joints and Components. International Institute of Welding, IIW Document XIII-1965r14-03 / XV-1127r14-03.

Koristilyov L., D. Litvinenko. (2016). Analysis and classification of methods for assessment of fatigue strength of welded thin walled structures for ship hulls. Vestnik gosudarstvenogo univesitta morskogo i rechnogo flota S.O. Makarova, vol 3 (37), pp. 104-118 (***Оригинално заглавие****: Коростылёв Л., Д. Литвиненко. 2016. Анализ и классификация методов оценки усталостной прочности сварных тонкостенных конструкций корпуса судна. Вестник государственного университета морского и речного флота им. адмирала С.О. Макарова, № 3 (37), 104 – 118*).

Mitev E., S. Iliev, D. Gunev. Design and study of suspension's element for prototype DTT-3 by CATIA. 57th Science Conference of Ruse University – SSS, Bulgaria, 2018.

Radaj D. Gestaltung und Berechnung von Schweißkonstruktionen, Ermüdungsfestigkeit. Düsseldorf, Germany: DVS, 1985.

Schoenborn K. Fatigue Analysis of a Welded Assembly Using ANSYS Workbench. CADFEM User's Meeting, 2005.

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-1-TMS-06

DESIGN AND STUDY OF ELECTROMOBILE PROTOTYPE DTT-3 BY CATIA V5

M. Eng. Emil Mitev
Department of Engines and Vehicles
University of Ruse "Angel Kanchev"
Tel.: +359 89 494 9777
E-mail: emsatalo@abv.bg

Assoc. Prof. Simeon Iliev, PhD
Department of Engines and Vehicles,
University of Ruse "Angel Kanchev"
Tel.: +359 82 888 331
E-mail: spi@uni-ruse.bg

Assoc. Prof. Dancho Gunev
Department of Industrial Design,
University of Ruse "Angel Kanchev"
Tel.: +359 89 828 4733
E-mail: dgunev@uni-ruse.bg

Abstract: *The paper reviews the opportunities for developing and researching of an electromobile prototype by CAD product CATIA V5. It provides wide range of possibilities for data visualisation. The purpose of this particular paper is to present the whole process of design of a prototype DTT-3 and examine element of suspension under specify features, before it can be produced. The main goals of this project are being optimized size, weight, aerodynamic characteristics, rolling resistance, ergonomics, reliability and reduce the cost of production. The suspension element is a subject of a stress test to determine its strength qualities during its exploitation. Thus, its size, weight and way of designing. Based on obtained results, element with better constructive characteristics has been designed and produced.*

Keywords: *Design, Study, Prototype, Part, Suspension, Catia, FEM, Analysis*

REFERENCES

Zamani, N. G. (2012). CATIA V5 FEA Tutorials: Release 21. SDC Publications.

Prof. Univ, S. T. P. (2016). CATIA V5-6R2015 for Designers, 13th Edition. CADCIM Technologies; 13 edition. ISBN-13: 978-1942689218

Weaver, J. M., Zamani, N. G. (2012). CATIA V5 Tutorials Mechanism Design & Animation Release 21. SDC Publications. ISBN: 978-1-63056-056-0

Petrova, Ts., 2016. Rakovodstvo na inzheneri i studenti. Chast 1: CATIA V5. Proektirane na mashinostroitelni detayli. Plovdiv: Izdatelstvo "Haykad Infoteh". ISBN 978-619-7365-01-6 (***Оригинално заглавие:*** *Петрова, Ц., 2016. Ръководство на инженери и студенти. Част 1: CATIA V5. Проектиране на машиностроителни детайли. Пловдив: Издателство "Хайкад Инфотех". ISBN 978-619-7365-01-6*).

SHELL ECO-MARATHON, 2019 OFFICIAL RULES, CHAPTER I

FRI-2.203-1-TMS-07

EQUIPMENT OF A DIESEL ENGINE WORKING WITH GAS FUEL ADDITIVES

Assoc. Prof., Krasimir Bogdanov, PhD
Department of Transport Engineering and Technologies,
Technical University of Varna, Bulgaria
Tel.: +359 52 383 321

Assoc. Prof., Radostin Dimitrov, PhD
Department of Transport Engineering and Technologies,
Technical University of Varna, Bulgaria
Tel.: +359 52 383 464
E-mail: r_dimitrov@tu-varna.bg

Eng., Daniel Kostadinov, PhD student
Department of Transport Engineering and Technologies,
Technical University of Varna, Bulgaria
Tel.: +359 52 383 464

Abstract: *The article shows the possibility of adding gaseous fuel and its impact on the diesel engine operation as well as the impact on engine performance. Exhaust emissions will be assessed using a gas fuel additive. Gas fueling systems in a diesel engine have seen a reduction in fuel costs and improvements in some of the engine's environmental performance. In systems with external mixture formation and mechanical control, the low adaptability of the system limits use. This disadvantage is eliminated in electronic management systems. It should be noted that the major drawback of external mixture formation systems is the need for a relatively high proportion of diesel fuel. Of the internal mixture formation systems, the two-fuel combined nozzle system is most applicable. Through it, diesel fuel is lowered, the system is relatively easy to install and has all the other positive aspects of external mixture formation systems.*

Keywords: *Bi-fuel systems, methane, Diesel, Internal Combustion Engines, Ecology, environmental characteristics*

JEL Codes: *Q35, Q42, Q56*

REFERENCES

Dimitrov R., Ianasi C., Bogdanov K.. (2017) *Research of cycle by cycle variation of si engines working with methane as a fuel*,; Annals of the "Constantin Brancusi" University of Targu-Jiu; Engineering series, 62-65, 2017, Romania,

Kostadinov D., Bogdanov K. (2016) Methods for adding a gaseos fuel into diesel engines; Proceedings University of Ruse, 106 – 114, Bulgaria, 2016;

Kostadinov D., Dimitrov R., Georgieva V. (2016), Investigation power performance of vehicles working with gasoline and LPG, XXIII Nauchno-tehnicheska konferenciya s mejdunarodno uchastie ECO-VARNA, 324-329, 2016, Bulgaria

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-1-TMS-08

SYSTEM FOR REGULATING THE COMPOSITION OF BIOGAS USED AS FUEL FOR INTERNAL COMBUSTION ENGINES

Assoc. Prof., Zdravko Ivanov, PhD
Department of Transport Engineering and Technologies,
Technical University of Varna, Bulgaria
Tel.: +359 52 383 315
E-mail: zdrdi@mbox.actbg.bg

Assoc. Prof., Radostin Dimitrov, PhD
Department of Transport Engineering and Technologies,
Technical University of Varna, Bulgaria
Tel.: +359 52 383 464
E-mail: r_dimitrov@tu-varna.bg

Cheef Assist. Veselin Mihaylov, PhD
Department of Transport Engineering and Technologies,
Technical University of Varna, Bulgaria
Tel.: +359 52 383 464
E-mail: v_mihaylov@tu-varna.bg

Assist. Delyan Petkov,
Department of Transport Engineering and Technologies,
Technical University of Varna, Bulgaria
Tel.: +359 52 383 326
E-mail: delyan.petkov@tu-varna.bg

Abstract: *The article shows a study focusing on the use and potential of biogas, as an alternative fuel from Renewable Energy Sources for using in gas-generators. Studies show that the content of particular matters and NO_x is significantly reduced due to the mixing scheme used. Given the methane burning - one of the components of biogas, CO_2 emissions are lower in the atmosphere. The aim is to study the impact of different biofuel concentrations on the environmental performance of automotive engines, to determine the optimum and permissible biofuel blend concentrations and their impact on engine performance. By modifying the composition of the fuel, it is intended to model a working process by influencing some of its basic parameters such as: maximum cycle temperature, combustion duration, rate of increase of pressure, etc.*

Keywords: *Biogas, Internal Combustion Engines, Ecology, environmental characteristics*

JEL Codes: *Q35, Q42, Q56*

REFERENCES

Ivanov Z., Mihaylov V, Kolev A.(2012) Izsledovatelska sistema za opredelyane ekologichnite haracteristiki na avtomobilni dvigateli, XVIII Nauchno-tehnicheska konferenciya s mejdunarodno uchastie ECO-VARNA, 511-518, 2012, Bulgaria

Haller P., R.Wrobel, R.Dimitrov, V.Mihaylov. (2013) Introducing new engine performance lab at the department of motor vehicles and combustion engines of Wroclaw University of Technology, PTNSS CONGRESS–2013, SC–093, publ. PTNSS combustion engines, 2013, Poland.

R. Dimitrov, C. Ianasi, K. Bogdanov. (2017) Research of cycle by cycle variation of si engines working with methane as a fuel,; Annals of the “Constantin Brancusi” University of Targu-Jiu; Engineering series, 62-65, 2017, Romania,

Dimitrov R., Zlateva P., Demirova S.. (2017) Investigation of the characteristics of biogas fuels and opportunities for their distribution in bulgaria; Acta technica corviniensis; Bulletin of Engineering Tome X, 69-72, 2017, Romania; http://acta.fih.upt.ro.

FRI-2.203-1-TMS-09

PERFORMANCE OF 100% ELECTRIC CAR RENAULT ZOE IN OF REAL DRIVING CONDITION OPERATION.

Borislav Penchev – PhD Student
Department of Transport Equipment and Technologies
Tehcnical University of Varna
Tel.: +359899159238
E-mail: bobby_penchev@abv.bg

Assoc. Prof.Trifon Uzuntonev, PhD
Department of Transport Equipment and Technologies
Tehcnical University of Varna
Phone: +359899159238
E-mail: uzuntonev_trifon@abv.bg

Abstract: *During the conducted experiment, we have come to the real mileage of 100% electric car Renault ZOE in exploitation out of meaning of New European Driving Cycle (NEDC), which determines the level of toxic components in exhaust gas. This standard, despite the critics for being unreal and revealing car characteristics in lab conditions, is almost always used for showing the mileage of electric cars. In real driving conditions, having in mind the weather and road conditions, stress and dynamic of driving, battery status, the proclaimed high mileage of electric car comes unreal. In this experiment is used a new electrical car with total mileage 6000km in a perfect weather condition of 25 ^{0}C and 1000 hPa barometric pressure. Despite the widely advertised mileage of 300km in real driving conditions, the battery was down at 168km.*

Keywords*: Electric car; Battery level; Range in full charge; mileage of NEDC;*

REFERENCES

Karle,Anton. (2018). Elektromobilität: Grundlagen und Praxis Publisher Hanser Fachbuchverlag, 2018, ISBN 3446456570,

Евтимов,Иван (2012). Електромобили , Русенски Университет

https://en.wikipedia.org/wiki/New_European_Driving_Cycle/

https://www.plugshare.com/

https://vsichkotok.bg/

https://www.renault.bg/avtomobili/elektricheski/zoe_new.html

Google Earth Pro 7.3.2.5491 (64-bit)

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-1-TMS-10

EXPERIMENTAL STUDY OF THE INFLUENCE OF THE ELECTROHYDRAULIC INJECTOR CONTROL VALVE'S STROKE OVER THE PERFORMANCE CHARACTERISTICS OF A DIESEL ENGINE

Eng. Nikolay Yordanov
Department of Engines & Automotive Engineering
"Angel Kanchev" University of Ruse
Tel.: +359 87 8711546
E-mail: nyordanov@uni-ruse.bg

Assoc. Prof. Emilyan Stankov, PhD
Department of Engines & Automotive Engineering
"Angel Kanchev" University of Ruse
Phone: 082/ 888 332
E-mail: emstankov@uni-ruse.bg

Assoc. Prof. Kiril Hadzhiev, PhD
Department of Engines & Automotive Engineering
"Angel Kanchev" University of Ruse
Phone: 082/ 888 332
E-mail: khadjiev@uni-ruse.bg

Abstract: *The article presents an experimental research of a common rail injector control valve's stroke influence over the combustion process of a diesel engine. Indicator diagrams of the working process were taken with an efficient and a faulty one, with an increased control valve stroke of the electrohydraulic injector with electronic management. Research was performed at idle speed and at 2 and 3.6 kgm torque load at speed 1500 min-1. Data was recorded of the influence over power and ecologic engine indicators at three levels the of the injector control valve's stroke. In addition, a noise characteristic by frequency bands was taken.*

The conducted research showed significant changes in the indicator pressure in the regimes accompanied by preinjection. Changes in power and environmental performance were reported. There were also changes in the noise levels by frequency bands.

Keywords: *Combustion process, Indicator diagrams, Control valve stroke, Common rail injector, Frequency bands*

REFERENCES

Vibe I,. 1962. Novoe o rabochem cicle dvigatelq. Izdatelstvo Uralskij rabochij. (оригинално заглавие: Вибе И., 1962. Новое о рабочем цикле двигателя. Издательство Уральский рабочий)

Genov G., 1985. Izpitvane na dvigateli s vytreshno gorene. Sofia: Izdatelstvo "Technika" 1985 (***Оригинално заглавие:*** *Генов Г., 1985. Изпитване на двигатели с вътрешно горене. София: Издателство „Техника"*)

Mitkov At., 2011. Teoria na eksperimenta. Ruse: Izdatelstvo "Dunav pres" (***Оригинално заглавие:*** *Митков Ат., 2011. Теория на експеримента. Русе: издателство „Дунав прес"*)

Mitkov At., 2010. Teoria na eksperimenta. Ruse: Universitetski izdatelski centar "Angel Kanchev" (***Оригинално заглавие:*** *Митков Ат., 2010. Теория на експеримента. Русе: Университетски издателски център "Ангел Кънчев"*)

Sevastakiev V,. Zhivkov V., Marinov E., 1986. Dinamika i treptenia na DVG. Sofia: Izdatelstvo Technika (***Оригинално заглавие:*** *Севастакиев В., Живков В., Маринов Е., Динамика и трептения на ДВГ, София: Издателство "Техника"*)

Stechkin B., Genkin K., Zolatarevskij V., Skorodinskij Iz., 1960. Indikatornaq diagramma, dinamika teplovydelenia I rabochij cikl bystrohoodnogo porchnevogo dvigatelq. Moskva: Izdatelstvo Akademii nauk SSSR (***Оригинално заглавие****: Стечкин Б., Генкин К., Золотаревский В., Скородинский Из., Индикаторная диаграмма, динамика тепловыделения и рабочий цикл быстроходного поршневого двигателя. Москва: Издательство "Академии наук СССР"*)

FRI-2.203-1-TMS-11

APPLICATION OF THE "GROWTH FACTOR" MODEL FOR PROJECTING PASSENGERS IN A CITY ROUTE LINE

Assoc. Prof. Mirena Todorova, PhD
Department of Technology, Organization and Management of Transport
„Todor Kableshkov" University of Transport, Sofia
Tel.: +359 878549043
E-mail: reni1760@abv.bg

PhD. St. Silvia Assenova
Department of Technology, Organization and Management of Transport
„Todor Kableshkov" University of Transport, Sofia
Phone: +359 886 571785
E-mail: silviaboianova@yahoo.com

Abstract: *The reducing of traffic in cities and the attracting of passengers to urban transport require the travel time to be reduced. It is used developed methodology for optimizing the timing of vehicles on partially overlapping routes with an aim to reduce waiting times at the stops of the DPS. It is based on the demand for such timetables on the public transport lines for a given a section with the same routes, which minimizes the amount of passenger time spent waiting for a vehicle.*

There are three steps in the implementation of the methodology: determination of the passenger flow traveling on the lines inside the section; determining the average waiting time by a given schedule option and determining the option with at least hourly waiting times for a vehicle. The research looks for decision with forecasting of the size of the passenger flow from a stop to a stop, ie obtaining the O-D matrices along a bus route using the "Average Growth Factor Model."

Keywords: *urban transport, O-D matric forecast, average waiting time, vehicle timetable*

JEL Codes: L10, L11

REFERENCES

Данни за преброяване на пътниците по автобуси, получени от „*Център за градска мобилност*" ЕАД, София.

Интернет страница на „*Център за градска мобилност*" ЕАД – www.sofiatraffic.bg.

Тодорова, М., Трендафилов, З., Динчев, Д. (2017), *Железопътен интермодален транспорт*, бр. 12/2017, София.

Крачаунов, Т.Т (1994). *Градски пътнически транспорт*, София.

Kevin B. Modi, L. B. Zala, F. S. Umrigar, T. A. Desai, (2011)*, "Transportation Planning Models: A Review",* National Conference on Recent Trends in Engineering & Technology, B.V.M. Engineering College, V.V.Nagar, Gujarat, India, 13-14 May 2011.

Immers, L.H., Stada Heverleeq J.E.,(1998), „*TRAFFIC DEMAND MODELLING*", Faculty of engineering department of civil engineering traffic engineering and infrastructure planning section, Kasteelpark Arenberg 40, B – 3001, Heverlee, Belgium, mai 1998.

Sarkar, P.K., Vinay, Joshi, (2017) „*TRANSPORTATION PLANNING: PRINCIPLES, PRACTICES AND POLICIES*", PHI Learning Pvt. Ltd, Amazon.com, Delfi.

https://books.google.bg/

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-1-TMS-12

ASSESSMENT AND ANALYSIS OF THE ORGANIZATION OF THE TROLLEYBUS MOVEMENT

Eng. Alexander Tsekov,
Department of Transport
"Angel Kanchev" Univesity of Ruse
Tel: 0877793788
E-mail: atsekov@uni-ruse.bg

Abstract: *A priority for the urban transport in Rousse is the trolleybus, its organization and the quality of the transport service are an important condition for the sustainable development of the city. One of the main indicators of the quality of the transport service in passenger transport is the regularity of the movement of vehicles. In addition to the planned traffic intervals, some key factors related to the conditions of public transport (composition and intensity of traffic flow, passenger flow structure, traffic lights, etc.) are also essential. .). The work analyzes and assesses the regularity of the traffic of lines 2, 9, 13 of the trolleybus transport in the conditions of the city of Ruse, Bulgaria, by probing the estimation of the arrival intervals of the means of transport at the stops on a given route.*

Keywords: *public transport, trolleybus, traffic intervals, regularity*

JEL Codes: *L91*

REFERENCES

Гудков, В. А. Методика квотирования числа пассажирских автотранспортных средств по критерию экологической безопасности/ В.А. Гудков, В.Н. Федотов, Г.А. Чернова// Вестник транспорта, - 2004. - №7.

Dragnev H. Optimizirane na gradskite avtobusni marshruti po kolichestveni kriterii. Disertacia VMEI "V. Lenin", Sofia, 1982. (***Оригинално заглавие:*** *Драгнев, Хр. "Оптимизиране на градските автобусни маршрути по количествени критерии", Дисертация, ВМЕИ "В. И. Ленин", София, 1982 г.*)

Dragneva N. Vlianie na uchastakovata skorost varhu vremeto za patuvane v sistemata "OPT", 14 NTK s intern. Participation Sofia, 2004. (***Оригинално заглавие****: Драгнева Н. Влияние на участъковата скорост върху времето за пътуване в системата "ОПТ", 14 НТК с межд. участие София, 2004*)

Otdel Transport kam Obshtina Ruse – Danni za avtoparka na gradskia patnicheski transport na Obshtina Ruse. (***Оригинално заглавие****: Отдел „Транспорт" към Община Русе - Данни за автопарка на градския пътнически транспорт на територията на Община Русе.*) https://transport.ruse-bg.eu/pt/

Page of EGGED – Ruse. (***Оригинално заглавие:*** *Страницата на Фирма „ЕГГЕД" – Русе АД*), http://www.egged-ruse.com/

Page of Shans 99 OOD. (***Оригинално заглавие:*** *Страницата на Фирма „Шанс 99" ООД),* http://chance99.net/

Page of Geokomers OOD. (***Оригинално заглавие:*** *Страницата на Фирма „Геокомерс" ООД*), http://geocommerce-ruse.com/

Statisticheski danni za broj registrirani avtomobili v Bulgaria. (***Оригинално заглавие:*** *Статистически данни за брой регистрирани автомобили в България"*) https://www.24chasa.bg/avto/article/6651173

Statisticheski danni za broj registrirani avtomobili v Bulgaria. Eurostat. (**Оригинално заглавие:** Статистически данни за брой регистрирани автомобили в България. *Страница на „Евростат"*) https://www.economic.bg/bg/news/8/broyat-na-kolite-v-balgariya-raste-s-po-100-000-godishno.html

Plan za ustojchiva gradska mobilnost na grad Ruse. Obshtina Ruse. 2016. (***Оригинално заглавие:*** *План за устойчива градска мобилност на гр. Русе за периода 2016-2026 г.*) Община Русе. 2016

FRI-2.203-1-TMS-13

TERRITORIAL PECULIARITIES ON ROAD TRAFFIC ACCIDENTS IN THE REPUBLIC BULGARIA

Prof. Velizara Pentcheva, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 240
E-mail: vpencheva@uni-ruse.bg

Assoc. Prof. Asen Asenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 086-821 605
E-mail: asasenov@uni-ruse.bg

Eng. Stanimir Penev,
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 086-821 605
E-mail: spenev@uni-ruse.bg

Abstract: *The work reviews analysis of road traffic accidents in the regions of the country. On the base on methods on spatial statistics are shown essential features in the distribution and frequency on consequences from road transport accidents in the region. Review of the number of crashed & injured in the country, review of the country's Safety Strategy, MES and regional. Indication of the Ordinance on the identification of dangerous, indication of Traffic Law. A brief overview of how in other countries the assessment of crashes measures to reduce the killed and wounded per 1 million inhabitants. Determination of road accidents by type for the country and for city of Rousse. Determination of the cause for most accidents? Determination of the number of accidents killed, injured per 1 million inhabitants per city district, and the same number of vehicle counts.*

JEL Codes: *L10, L11*

REFERENCES

FEHRL, A. A., 2012, Handbook on Road Safety Prevention for Roads from the Secondary Road Network

Kostadinova, R., Transport and transport safety, Collection of reports from the annual university scientific conference of the National Academy of Sciences Vasil Levski. ISSN 1314-1937 (continuation of issue 2-2010 of the magazine), New Bulgarian University.

Ministry of regional development and public works, Report on ecological assessment of a medium-term intermediate program for implementing the strategy for the development of road infrastructure in the republic of Bulgaria 2014-2020.

Steblovskiy A. S. Spatial distribution and temporal variability of road-transport accidents in Krasnodar, Scientific adviser: Anatoly V. Pogorelov, Doctor of Geographical Sciences, Professor, Head of the Geoinformatics Department of the Kuban State University, Leading organization: North-Ossetian State University. KL Khetagurov, Vladikavkaz.

The National Statistical Institute or NSI is the Bulgarian state agency, Transport Accidents in the Republic of Bulgaria 2017.

http://www.nsi.bg/en, The National Statistical Institute or NSI is the Bulgarian state agency - (Accessed on 06.10.2018).

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-1-TMS-14

STUDY OF THE ORGANIZATION OF REGULAR GROUPAGES AS PART OF INTEGRATED SUPLY IN THE CONDITIONS OF 3PL OPERATOR

Eng. Ivan Petrov
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888-605
E-mail: ipetrov@uni-ruse.bg

Prof. Velizara Pencheva, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 240
E-mail: vpencheva@uni-ruse.bg

Assoc. Prof. Asen Asenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888-605
E-mail: asasenov@uni-ruse.bg

Abstract: *In the work was done study and analysis of the organization of a regular groupage line on the route Sofia-Paris-Sofia. The carriage is made by trucks with a load capacity of over 18t. Annual transport costs are analyzed which include the seasonal unevenity of the carriage costs and the choice of own and hired rolling stock. The transport service is considered as part of the integrated delivery under the conditions of a 3PL operator. The results of the survey show the most appropriate option for carrying out regular groupage transport, taking into account the seasonal imbalance.*

Keywords: *3PL, groupage, transportation, seasonal imbalance*

JEL Codes: *L91*

REFERENCES

Arurkar, A. Study of overall 3 party logistics at Origin Logistic Pvt. Ltd., Pune Uniersity., 2013 Langley J. Third-Party Logistics Study. 2015, http://www.3plstudy.com

Langley J. Third-Party Logistics Study. 2017, http://www.3plstudy.com

The World Bank. LPI global ranks 2016. 2016. https://lpi.worldbank.org/international/-global

Aguezzoul, A. The Third Party Logisitics Slection: A review of Literature, International Logistics and Suplly Chain Congress. 2007, https://hal.archives-ouvertes.fr/hal-00366527

Mayer, A. Supply Chain Metrics That Matter: Third Party Logistics Providers, 2013, Supply Chain Insights LLC

Obobshtena statistika na NSBS 2013-2016, www.nsbs.bg (***Оригинално заглавие:*** *Обобщена статистика на НСБС 2013-2016*)

Dimchev V. Narachnik za profesionalno obuchenie na speditorski kadri w syotwetstiie sys standartite na FIATA. NSBS. 2015 (Оригинално заглавие: Димчев В. Наръчник за професионално обучение на спедиторски кадри в съответствие със стандартите на FIATA. НСБС. 2015)

Doklad za rabotata w Akt Logistics za 2017. Ruse. 2018 (***Оригинално заглавие:*** *Доклад за работата в Акт Логискик за 2017. Русе. 2018*)

FRI-2.203-1-TMS-15

MAIN ISSUES AND PERSPECTIVES FOR THE DEVELOPMENT OF URBAN TRANSPORT

Prof. Velizara Pencheva, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 240
E-mail: vpencheva@uni-ruse.bg

Assoc. Prof. Asen Asenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 605
E-mail: asasenov@uni-ruse.bg

Eng. Ivan Georgiev,
Department Applied Mathematics and Statistics,
"Angel Kanchev" Univesity of Ruse
Phone: 82 888 424
E-mail: irgeorgiev@uni-ruse.bg

Prof. Aleksander Sladkowski,
Department of Logistics and Industrial Transportation,
Silesian University of Technology, Poland
Phone: +48 32 603 42 91
E-mail: aleksander.sladkowski@polsl.pl

Abstract: *Based on statistical analysis and existing transport practice, the dynamics of the development of urban transport in Bulgaria and the main problems are presented. In line with the review of the main strategic documents related to the European transport policy, innovation in the technological, social and organizational environment, as well as the good European practices in the field of mobility, the prospects for the development of urban transport.*

Keywords: road transport, city transport scheme, urban transport, European practices

JEL Codes: *L91*

REFERENCES

Action Plan on Urban Mobility. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions. Brussels,. 2009 COM(2009) 490.

Kliucininkas L., Jonas Matulevicius. Comparative Analysis of Bus and Trolleybus Related GHGs Emissions and Costs in Lithuania. 5th international Vilnius Conference, EURO Mini Conference, "Knowledge-Based Technologies and OR Methodologies for Strategic Decisions of Sustainable Development"(KORSD-2009). September 30–October 3, 2009, Vilnius, LITHUANIA. ISBN 978-9955-28-482-6. Selected papers. Vilnius, 2009, pp. 187–191. Institute of Mathematics and Informatics, 2009. Vilnius Gediminas Technical University, 2009

Marcin Wołek, Olgierd Wyszomirski and others. The Trolleybus as an Urban Means of Transport in the Light of the Trolley. Wydawnictwo Uniwersytetu Gdańskiego. Gdańsk. 2013,p.167, ISBN 978-83-7865-174-1http://www.zkmgdynia.pl/admin/__pliki__/TROLLEY_-ebook_2013_.pdf

 Copyrights© http://conf.uni-ruse.bg

Министерство на транспорта, информационните технологии и съобщенията. Доклад анализ относно възможностите за икономическото и ефективно увеличение на участието на тролейбусния транспорт във вътрешноградските пътнически превози в България. София, България. 2012.

NSI. Statistical yearbook 2016. Sofia. 2017 (НСИ. Национален статистически годишник, София, България. 2017)

TROLLEY Project. Transport Mode Efficiency Analysis: Comparison of financial and economic efficiency between bus and trolleybus systems. http://www.trolley-project.eu/-fileadmin/user_upload/download/TROL-LEYWP4_Transport_Mode_Efficiency_Analysis_Bus-_vs_Trolleybus.pdf

Website of the Ruse Municipality. https://www.ruse-bg.eu/setlang/en/

Website of the Google maps.2017. https://www.google.bg/maps.

Website of the EGGED transport. 2017. http://www.ruse-bg.eu/bg/pages/468/index.html

Website of the Electrotransport Sofia. 2017, http://www.elektrotransportsf.com/index.php?-option=com_content&view=article&id=78&Itemid=59&lang=bg

FRI-2.203-2-TMS

FRI-2.203-2-TMS-1

COLLISION SPEED ESTIMATION USING A DIFFERENT MATHEMATICAL MODELS

Assoc. Prof. Daniel Lyubenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 605
E-mail: dliubenov@uni-ruse.bg

Assist. Prof. Svilen Kostadinov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 618
E-mail: skostadinov@uni-ruse.bg

Filip Kirilov, PhD student
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 618
E-mail: fkirilov@uni-ruse.bg

Abstract: *Various methods and dependencies are used in the expert practice to determine the speed in vehicle accident reconstruction. Each of the methods has advantages and disadvantages compared to others in a specific accident investigation. Accident investigators need to know their specific features and apply the most appropriate one for each particular case. This paper presents the collision speed estimation using a different mathematical models. Presented are various mathematical models to determine the vehicles speeds for frontal collisions. A comparison of the results was made using real cases of judicial practice in Bulgaria. Analyzes and recommendations have been made on the applicability of the various mathematical models for specific accidents. The results of this work can be used in expert practice and training.*

Keywords: *Vehicle Accident Reconstruction, Collision Speed, Delta V Energy Method.*

JEL Codes: *L91*

REFERENCES

Bartlett, W., Fonda, A. (2003) Evaluating uncertainty in accident reconstruction with finite Differences. SAE Technical Paper No. 2003-01-0489, Warrendale, PA.

Brach R., M. Brach (2011).Vehicle Accident Analysis and Reconstruction Methods.

Evtiukov, S. & Kurakina, E. & Lukinskiy, V. & Ushakov (2017) A. Methods of Accident Reconstruction and Investigation Given the Parameters of Vehicle Condition and Road Environment. Transportation Research Procedia. Vol. 20, P. 185-192.

Gabauer, D.J. & Gabler, H.C. (2006) Comparison of delta-V and occupant impact velocity crash severity metrics using event data recorders. Annual Proceedings/Association for the Advancement of Automotive Medicine. Vol. 50. P. 57–71.

Gelkov J., Lyubenov D., (2014). Bezopasnost na dvijenieto. RU, Ruse. (***Оригинално заглавие:*** *Гелков, Ж.Р., Любенов Д., 2014. Безопасност на движението. РУ, Русе*).

Han, I. & Kang, H. (2016) Three-dimensional crush scanning methods for reconstruction of vehicle collision accidents. International Journal of Automotive Technology. February. Vol.17(1). P. 91-98.

 Copyrights© http://conf.uni-ruse.bg

Johnson, N.S. & Hampton C.G. (2014). Evaluation of NASS-CDS Side Crash Delta-V Estimates Using Event Data Recorders. Traffic Injury Prevention Journal. 2014. Vol. 15, Issue 8. P. 827-834.

Lang, W. & Biao, G. & Tao, C. (2013) Vehicle Continuous Collision Accident Reconstruction System Development. Procedia - Social and Behavioral Sciences. November. Vol. 96. P. 1659-1669.

Lyubenov D., Gelkov J., (2017). Analiz I rekonstrukcii na pytnotransportnite proizshetwiq. RU, Ruse. (Оригинално заглавие: Любенов Д., Гелков Ж., 2017. Анализ и реконструкции на пътнотранспортните произшествия. РУ, Русе).

Pride, R. & Giddings, D. & Richens, D. & McNally, D. (2013). The sensitivity of the calculation of ΔV to vehicle and impact parameters. Accident Analysis & Prevention. June 2013.Vol. 55. P. 144-153.

Qian W., Hampton G. (2007). Accuracy of Vehicle Frontal Stiffness Estimates for Crash Reconstruction. Virginia Tech, United States, Paper Number 07-0513

Wach W. (2016). Calculation reliability in vehicle accident reconstruction. Forensic Science International Journal. June 2016. Vol. 263. P. 27-38.

Wood, D. (1992). Collision Speed Estimation Using a Single Normalised Crush Depth-Impact Speed Characteristic, SAE Technical Paper 920604.

FRI-2.203-2-TMS-02

COMPARATIVE ANALYSIS OF THE METHODS FOR DETERMINING OF THE VALUES OF DAMAGES TO VEHICLES IN ROAD TRAFFIC ACCIDENTS

Assist. Prof. Svilen Kostadinov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 618
E-mail: skostadinov@uni-ruse.bg

Assoc. Prof. Daniel Lyubenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 605
E-mail: dliubenov@uni-ruse.bg

Assist. Prof. Toncho Balbuzanov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 608
E-mail: tbalbuzanov@uni-ruse.bg

Abstract: *This paper provides a comparative analysis of the methods for determining of the values of damages to vehicles in road traffic accidents. The comparison is made for the methodologies used in Bulgaria and Russia. The purpose was to analyze the methodologies and to determine the positive and negative factors.*

Keywords: *values of damages, vehicles, road traffic accidents.*

REFERENCES

Адрианов Ю.В., „Как оценить и возместить ущерб от дорожно-транспортного происшествия", Дело, 2001г.

Адрианов Ю.В., „Оценка транспортных средств", Дело, 2002г.

Вильжер И., Николя Ж.-П., „Технология ремонта кузовов легковых автомобилей"

Stefanov V., „Remont na katastrofirali leki avtomobili", Sofia, 2009 (***Оригинално заглавие:*** *Стефанов В., „Ремонт на катастрофирали леки автомобили", София, 2009*)

Методика оценки остаточной стоимости транспортных средств с учетом технического состояния, Министерством транспорта Российской Федерации, 1998

Методика оценки стоимости поврежденных транспортных средств, стоимости их восстановления и ущерба от повреждения, Машиностроене, Москва, 1998

Naredba 49 ot 16.10.2014 g. za zadyljitelno zastrahovane po chlen 249, t. 1 i 2 ot Kodeksa za zastrahovane I za metodikata za urejdane na pretenciite za obeshtetenie na vredi, prichineni na motorni prevozni sredstva (**Оригинално заглавие:** НАРЕДБА 49 от 16.10.2014 г. за задължителното застраховане по чл. 249, т. 1 и 2 от Кодекса за застраховането и за методиката за уреждане на претенции за обезщетение на вреди, причинени на моторни превозни средства)

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-2-TMS-03

IMPROVING THE SAFETY OF VULNERABLE ROAD USERS

Assist. Prof. Toncho Balbuzanov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 608
E-mail: tbalbuzanov@uni-ruse.bg

Assoc. Prof. Daniel Lyubenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 605
E-mail: dliubenov@uni-ruse.bg

Assist. Prof. Svilen Kostadinov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 515
E-mail: skostadinov@uni-ruse.bg

Abstract: *At present, about 80% of Europe's population lives in urban environments and shares the same ransport infrastructure. In this work is presented statistics for injured vulnerable road users for Ruse region. Various opportunities for reducing incidents involving vulnerable road users are presented as they are an important part of the road system in urban areas. An analysis of the legal framework regulating the obligations of these participants is made. Discusses some innovative systems used to improve traffic safety. Some problems related to the pedestrian traffic in Ruse are discussed.*

Keywords: *traffic safety, pedestrians, detection, road crossing.*

REFERENCES

Ministry council of the Republic of Bulgaria, National strategy for improving road safety in Bulgaria for the period 2011–2020, (2011).

K. Vishnuvardhan Reddy, L. Shanigarapu. (2015) Design and implementation of intelligent traffic light system, International Journal of Computer Science and Mobile Computing, Vol.4 Issue.7, July- 2015, pg. 93-102.

Boris EVSTATIEV*, Toncho BALBUZANOV, Ivan BELOEV, Velizara PENCHEVA (2018). Intelligent system for improved safety of pedestrian traffic lights, TRANSPORT PROBLEMS.

C. Vilarinho , J. P. Tavares a, Rosaldo J. F. Rossetti ((2017)). Intelligent Traffic Lights: Green Time Period Negotiaton. Transportation Research Procedia 22 325–334.

Lyubenov D. (2012)., "Possibilities to improve road safety in Ruse district" Conference University of Ruse Union of Scientists - Ruse, Proceedings volume 50, book. ISSN 1311-3321.

Lyubenov D., Marinov M., Kostadinov S., Gelkov Zg. (2011). „Road safety estimation in Bulgaria from 1990 to 2010". Scientific Journal "VISNIK" 12 (166) 2011, p 119 – 124, ISSN 1998-7927.

Министерство на регионалното развитие и благоустройството. НАРЕДБА № 17 от 23.07.2001 г. за регулиране на движението по пътищата със светлинни сигнали. Обн. - ДВ, бр. 72 от 17.08.2001 г.; доп., бр. 18 от 05.03.2004 г.; изм. и доп., бр. 35 от 15.05.2015 г., в сила от 18.05.2015 г. [In Bulgarian: Ministry of the reginal development and public works. Ordinance № 17 from 23 .07.2001 for regulation of the road traffic with light signals].

Национален статистически институт. Пътнотранспортни произшествия в Република

България (2016). София, 2017. [In Bulgarian: National statistical institute. Road accidents in the Republic of Bulgaria 2016. Sofia, 2017].

European Commission (2011). White paper: Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system.

https://www.mvr.bg/dokkpbdp/безопасност-на-пътя/статистика/обща-статистика [In Bulgarian, Ministry of the internal affairs of Bulgaria. State-Public advisory committee on the problems of road safety]

FRI-2.203-2-TMS-04

A STUDY OF THE DRIVING LICENSE EXAMS IN RUSE DISTRICT TO IMPROVE ROAD TRAFFIC SAFETY

Polina Atanasova, PhD student
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 605
E-mail: patanasova@uni-ruse.bg

Assoc. Prof. Daniel Lyubenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 605
E-mail: dliubenov@uni-ruse.bg

Abstract: *This report presents information from a conducted study on the success of the exams for drivers and the mistakes made during the practical exams of the applicants for drivers in the Ruse district. Data from the Regional Directorate "Automobile Administration" Ruse was used. The most common mistakes of the applicants for drivers are identified. Suggested are ways to reduce the number of errors of practical examinations of applicants for drivers.*

Keywords: *Traffic safety, exams for drivers, driving license.*

JEL Codes: *L10, L11*

REFERENCES

Atanasova-Petrova P., Lyubenov D., Kostadinov S., Kirilov F.: ROAD TRAFFIC SAFETY ANALYSIS IN RUSE DISTRICT, BULGARIA FOR THE PERIOD 2012 – 2016, PART 1: Conference University of Ruse Union of Scientists - Ruse, Proceedings volume 56, book 4, Ruse, 2017, ISBN 1311-3321.

Atanasova-Petrova P., Lyubenov D., Kostadinov S. (2016). "A study of driving simulator to improve road traffic safety". Conference University of Ruse Union of Scientists - Ruse, Proceedings volume 50, book 4 1311-3321.

Data from the Regional Directorate "Automobile Administration" Ruse

Data from Global Health Observatory (GHO) data / road_safety, URL: http://www.who.int/-gho/road_safety/en/

Kostadinov S., Atanasova-Petrova P., Lyubenov D., Kirilov F.: ROAD TRAFFIC SAFETY ANALYSIS IN RUSE DISTRICT, BULGARIA FOR THE PERIOD 2012 – 2016, PART 2: Conference University of Ruse Union of Scientists - Ruse, Proceedings volume 56, book 4, Ruse, 2017, ISBN 1311-3321.

Lyubenov D., "Possibilities to improve road safety in Ruse district" (2012). Conference University of Ruse Union of Scientists - Ruse, Proceedings volume 50, book. ISSN 1311-3321.

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-2-TMS-05

ANALYSIS AND ASSESSMENT OF THE CONDITIONS FOR TRANSPORTATION OF DANGEROUS GOODS ALONG THE DANUBE AS PART OF A MULTIMODAL SCHEME

Kamen Ivanov, PhD student Eng.
University of Ruse,
Facilty of Transport
Department of Transport
Phone: 082 888 605
E-mail: kamen.ivanov@marad.bg

Asen Asenov, Assoc.Prof. PhD Eng.
University of Ruse,
Facilty of Transport
Department of Transport
Phone: 082 888 605
E-mail: asasenov@uni-ruse.bg

Stanimir Penev, Eng.
University of Ruse,
Facilty of Transport
Department of Transport
Phone: 082 888 605
E-mail: stamba5280@gmail.com

Abstract: *Much of the dangerous goods in Classes 2 and 3 are transported under the multimodal water and land transport scheme. The report analyzes the transport of dangerous goods in Class 2 and 3, taking into account the specificities of transport and storage. Because of the serious risks of transporting large quantities of dangerous goods, they are also transported along the Danube River by ships to the river ports, from where they are distributed to the gas stations in the country by trucks.*

Keywords: *dangerous goods, multimodal transport, Danube River, risk assessment*

JEL Codes: *L91*

REFERENCES

Bay Zoltan ans others. State of the Art study. Logistic development of Inland Waterway Ports (TG1). Project DaHar – Danube Inland Harbour Development, 2012, http://www.southeast-europe.net/en/projects/approved_projects/?id=122

Désirée Oen, Dimitrios Theologitis, Bernardo Urrutia. Inland navigation developments in the EU 2016. Eighty-seventh session of the Danube Commission. Budapest, 14th of December 2016.

EAMA. Total freight through the sea and river ports of the Republic of Bulgaria for the period 2008-2013. Sofia, 2018). Available at: http://www.marad.bg/page.php?category=97&id=-416

EAMA. Total freight through the sea and river ports of the Republic of Bulgaria for the period 2014-2016. Sofia, 2018). Available at: http://www.marad.bg/upload/docs/Tovaroobort_-bgports__2014_2016.pdf

European Commission. White Paper. Roadmap to a Single European Transport Area - Towards a Competitive and Resource Efficient Transport System. Brussels. Belgium. 2011

Eurostat. Cargo turnover of all Danube Ports in the Country by Basic Goods Nomenclatures for 2016. 2017.) Available at: http://ec.europa.eu/eurostat/data/database

Manual on Danube navigation. Via Donau. Vienna, Austria. 2013. ISBN 978-3-9502226-2-3

МТИТС. Стратегия за развитие на транспортната система на Република България до 2020 г. София, България, 2010

Page of Danube commission, 2018. http://www.danubecommission.org/dc

Никифоров В.С. Мультимодальные перевозки и транспортная логи-стика. Новосибирск: НГАВТ, 1999. 103 с.

Милославская С.В., Плужников К.И. Мультимодальные и интермо-дальные перевозки. М.: РосКонсульт, 2001. 368 с.

Щербанин Ю., Е. Ивин, А. Курбацкий, А. Глазурин. Эконометрическое моделирование и прогнозирование спроса на грузовые перевозки в России в 1992-2015 г. журнал “Научные труды ИНП РАН”, том 2017, стр. 200-217,

https://ecfor.ru/publication/ekonometricheskoe-modelirovanie-i-prognozirovanie-sprosa-na-gruzovye-perevozki-v-rossii-v-1992-2015-gg/

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-2-TMS-06

OPTIMIZING TIME TO TRANSPORT TRANSIT LOADS IN A MULTIMODAL SCHEME BETWEEN THE SEA AND RIVER PORTS WITH AUTOMOBILE TRANSPORT

Boril Ivanov, PhD student Eng.
Department of Transport
"Angel Kanchev" Univesity of Ruse
Phone: 082 888 605
E-mail: bivanov@uni-ruse.bg

Assoc. Prof. Asen Asenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 086-821 605
E-mail: asasenov@uni-ruse.bg

Prof. Velizara Pentcheva, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 240
E-mail: vpencheva@uni-ruse.bg

Abstract: *The report presents a model for synchronizing port handling with the operation of the fleet for the transit of large cargo between two port terminals - sea and river as part of a multimodal supply chain. This option optimizes vehicle downtime when there is insufficient number of trucks on the market.*

Keywords: *freight transport, multimodal transport, road transport, port-to-port transit, synchronised truck scheduling, synchronised terminal cargo handling, methodology, mathematical model*

JEL Codes: *L91*

REFERENCES

Adhikari R., R. K. Agrawal. An Introductory Study on Time Series Modeling and Forecasting. Cornell University. USA. 2013, Pages. 68, https://arxiv.org/ftp/arxiv/papers/1302/-1302.6613.pdf

D.-H. Lee, J. X. Cao, Q. X. Shi. Synchronization of Yard Truck Scheduling and Storage Allocation in Container Terminals, National University of Singapore, 2014.

Никифоров В.С. Мультимодальные перевозки и транспортная логистика. Новосибирск: НГАВТ, 1999. 103 с.

NSI. National Statistical Institute. Sofia. 2018. Available at: http://www.nsi.bg/bg/content/-7508/%D0%BF%D0%BE-%D0%BC%D0%B5%D1%81%D0%B5%D1%86%D0%B8

Ivanov B., A. Asenov, V. Pencheva. Methodology for selecting a scheme for arranging port cargo handling and port-to-port carriage of transit goods by road as a part of multimodal transport. RU&SU'2017. 56th Science Conference of Ruse University, Ruse, 2017, ISSN 1311-3321

Simeonov D. V. Pencheva. Vzaimodejstvie mezdu vidovete transport. Ruse.2001, (***Оригинално заглавие:*** *Симеонов Д. , В. Пенчева. Взаимодействие между видовете транспорт. Русе. 2001*).

Taxa, Hamdy, A., Operation Research. An Introduction. University of Arcansas. Prentice Hill. 1997. ISBN 0-13-272915

FRI-2.203-2-TMS-07

INFLUENCE OF RISKY DRIVING A VEHICLE ON DRIVER'S CONDITION

Assist. Prof. Dimitar Grozev, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 321
E-mail: dgrozev@uni-ruse.bg

Abstract: *The purpose of the study is to analyze the impact of risky driving on the emotional load of drivers. The experiment used a specialized vehicle equipped with the necessary equipment. The reported data is processed using mathematical models. World statistics on traffic accidents show that most drivers are guilty. In our country, the proportion of such incidents is approximately 85% of the total. Drivers' behavior is one of the main and at the same time one of the most significant drivers of road accidents.*

Keywords: *Electrocardiographic signal, Electronic system, Transport, Risky driving, Mathematical models.*

REFERENCES

Регламентация активной и пассивной безопасности автотранспортных средств/ А. И. Рябчинский, Б. В. Кисуленко, Т. Э.Морозова.-М.: Издательский центр «Академия», 2006.-462 с.

Манукова А., М. Грозева, М. Тополова. Методика за моделиране на кардиологични заболявания и отражението им върху ЕКГ сигнал, Научни трудове на Русенски Университет "А. Кънчев", том 53, серия 3.1, Русе, Издателски център при РУ, 2014, ISBN 1311-3321.

Манукова А., М. Топалова, М. Грозева. Моделиране на ЕКГ сигнал за електронен мониторинг на кардиологични сигнали с цел превантивен контрол, Научни трудове на Русенски Университет "А. Кънчев", том 53, серия 3.1, Русе, Издателски център при РУ, 2014, ISBN 1311-3321.

Олейник В.П., С.Н. Кулиш. Аппаратные методы исследований в биологии и медицине, Нац. аэрокосм. ун-т "Харьк. авиац. ин-т", Харьков, 2004

Статистика от Националния център по обществено здраве и анализи министерството на здравеопазването и Националния статистически институт. София 2015 г.

Goncharenko, A. & Goncharenko, S. Экстрасенсорные силы сердца. Журнал Техника молодежи, № 5, ISSN 0320 – 331 X, 2005

Rudenko M., V. A. Zernov and O. K. Voronova . Study of Hemodynamic Parameters Using Phase Analysis of the Cardiac Cycle. Biomedical Engineering. Springer New York. ISSN 0006-3398 (Print) 1573-8256 (Online). Volume 43, Number 4 / Июль 2009 г. P. 151 -155.

Rudenko, M., Voronova, O. & Zernov. V. Новое в теории кардиологии. Фазовый механизм регулирования диастолического давления. Вестник аритмологии (приложение Б) – М. - С. 133.

Malmivuo J., R.Plonsey. Bioelectromagnetism. Principles and Applications of Bioelectric and Biomagnetic Field. New York, Oxford, 1995.

Организация дорожного движения / Г.И. Клинковштейн, М.Б.Афанасьев: Учеб. для вузов. - 5-е изд., перераб., и доп. - М.: Транспорт, 2001.-247 с.

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-2-TMS-08

STUDY AND ANALYSIS OF NEW UNIVERSAL LEARNING TRAINING MODELS IN THE EUROPEAN UNION

Eng. Nikolay Paunov
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888-605
E-mail: nikibau@abv.bg

Prof. Velizara Pencheva, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 240
E-mail: vpencheva@uni-ruse.bg

Assoc. Prof. Asen Asenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888-605
E-mail: asasenov@uni-ruse.bg

Abstract: *The work has been done to study and analyze training models for candidates for category B drivers. The applied models from the surveyed countries that are mainly from Europe are 5 in number. They are more in-person, allowing drivers to prepare and obtain a driving license and, to a certain extent, influence the reduction in the number of crashes with new drivers. Overall, in Europe and the world, there is no uniform training system for driver applicants from category B.*

Keywords: *training models, driving license category B, new drivers,*

JEL Codes: *L91*

REFERENCES

Nacionalna strategia za podobriavane na bezopasnostta na dvizenieto v Republika Bulgaria za perioda 2011-2020. MS. Sofia, (2011) (***Оригинално заглавие:*** *Национална стратегия за подобряване на безопасността на движението в Република България за периода 2011-2020 година. МС. София. 2011*)

Naredba № 3 ot 29 august 2011 za pridobivane na pravosposobnost za provezdane na izpiti na kadidatite za vodachi na motorni prevozni sredstva. W sila ot 13.09.2011. Ministerstvo na obrazovanieto, mladezta I naukata. (***Оригинално заглавие:*** *Наредба № 3 от 29 август 2011 г. за придобиване на правоспособност за провеждане на изпити на кандидатите за водачи на моторни превозни средства. В сила от 13.09.2011 г. Министерството на образованието, младежта и науката*).

https://www.lex.bg/laws/ldoc/2135750605

EC. Naj-dobri praktiki v bezopasnostta na dvizenieto po patishtata – narachnik za merki na nacionalno ravnishte. Luxemburg. Sluzba za publikacii na EC. (2010) (***Оригинално заглавие:*** *Европейска комисия. Най-добри практики в безопасността на движението по пътищата –наръчник за мерки на национално равнище. Люксембург: Служба за публикации на Европейския съюз. 2010 г.*) ,p. 64. ISBN 978-92-79-15251-1

ROSE. Inventory and compiling of a European guide on road safety education targeted at young people. KfV. (2005).

http://ec.europa.eu/transport/rose25/documents/deliverables/final_report.pdf

Keskinen E. GDE: Goals for driver education -Why, how and what and what now (2017)

https://www.cerema.fr/fr/system/files/documents/2017/11/5-Keskinen_Esko_GDE_Matrix_cle1cd69b.pdf

M. Hatakka, E. Keskinen, N.P. Gregersen, A. Glad & K. Hernetkoski (2002). From control of the vehicle to personal self-control; broadening the perspectives to driver education. Transportation Research Part F: Traffic Psychology and Behaviour, 5, 201-215

Peräaho, M., Keskinen, E. & Hatakka, M (2003). Driver competence in a hierarchical perspective: implications for driver education. (Report for Swedish Road Administration) University of Turku, Traffic Research, (51 p)

Keskinen, E., Hatakka, M., Laapotti, S., Katila, A., & Peräaho, M (2004). Driver Behaviour as a Hierarchical System (9– 29). In Rothengatter, T. and Huguenin, R. (eds.) Traffic & Transport Psychology. Theory and Application. Amsterdam:Elsevier

FRI-2.203-2-TMS-09

A STUDY OF MOTORCYCLE ACCELERATION IN REAL TRAFFIC FLOW

Eng. Filip Kirilov, PHD Student
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 0885/ 00- 43- 56
E-mail: f.kirilov@uni-ruse.bg

Assoc. Prof. Daniel Lyubenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 605
E-mail: dliubenov@uni-ruse.bg

Abstract: *This paper presents the results of a study of acceleration of motorcycles in a real traffic flow. Presented is a way of determining the acceleration by measuring the time to travel a certain distance. The study was conducted in Sofia city. Different categories of motorcycles have been studied. The acceleration is determined by measuring the time the motorcycles travel a certain distance when starting from intersections.*

Keywords: *Motorcycle Acceleration; Accident Reconstruction.*

JEL Codes: *L91*

REFERENCES

Akcelik, R. & Biggs, D. Acceleration profile models for vehicles in road traffic. Transportation Science. 1987. Vol. 21 (1), P. 36–54.

Bokare, P.S. & Maurya, A.K. Acceleration-Deceleration Behaviour of Various Vehicle Types. Transportation Research Procedia. 2017. Vol. 25. P. 4733-4749

Bokare, P.S. & Maurya, A.K. Study of Acceleration Behaviour of Motorized Three Wheeler in India. Transportation Research Procedia. 2016. Vol. 17. P. 244-252

Dey, P.P. & Biswas, P. Acceleration of queue leaders at signalized intersections. Indian Highways. 2011. No. 3(1) P. 49–54.

Goñi-Ros, B. & Knoop V. & Takahashi, T. & Sakata, I. Optimization of traffic flow at freeway sags by controlling the acceleration of vehicles equipped with in-car systems. Transportation Research Part C. October 2016. Vol. 71. P. 1-18

Jin, W. & Laval, J. Bounded acceleration traffic flow models: A unified approach.

 Copyrights© http://conf.uni-ruse.bg

Transportation Research Part B. May 2018.Vol. 111. P. 1-18.

Long, G. Acceleration characteristics of starting vehicles. Transportation Research Record. 2000. P. 58–70.

RaiChowdhury, M. & Rao, S. Acceleration characteristics of vehicles at signalized intersection. Journal of Institution of Engineers (India) 1989. P. 35–38.

Samuels, S. & Jarvis, J. Acceleration and deceleration of modern vehicles. Technical Report. Australian road research institute. Report 86. 1978.

European Commission. Transport. Statistical pocketbook 2017. Available at: https://ec.europa.eu/transport/facts-fundings/statistics/pocketbook-2017_en

FRI-2.203-2-TMS-10

A STUDY OF BICYCLE TRAVEL SPEED

Eng. Ivo Balevski, PhD student
Department of Transport,
"Angel Kanchev" University of Ruse
Tel.: (+359) 0894 884 250
E-mail: ibalevski@uni-ruse.bg

Assoc. Prof. Daniel Lyubenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: (+359) 082 888 605
E-mail: dliubenov@uni-ruse.bg

Abstract: *The bicycle is a practical and mobile transport. A study of the characteristics of the bicycle travel speed is necessary when investigating accidents with bicycle. The purpose of this work is to present results of a survey of the speed of cyclists for the city of Ruse. The study was conducted for different ages and sex. The speed is determined by measuring the time it takes cyclists travel a certain distance.*

Keywords: *Bicycle Speed, Accident Reconstruction.*

JEL Codes: *L91*

REFERENCES

Bernardi, S., Federico Rupi, F., (2015). An analysis of bicycle travel speed and disturbances on off-street and on-street facilities. Transportation Research Procedia 5. 82 – 94.

Chicago Metropolitan Agency for Planning. Bicycling strategy report., (2009).

http://www.goto2040.org/ideazone/forum.aspx?id=662#5652. (Accessed March 25).

Pein, W., (1997). Bicyclist performance on a multiuse trail. Transportation Research Record. 1578, p. 127-131.

Rubins, D. and S. Handy., (2005). Times of bicycle crossings: Case study of Davis, California. Transportation Research Record. DOI: 10.3141/1939-03. p. 22–27.

FRI-2.203-2-TMS-11

THE ORGANIZATION OF THE WORK OF TAXI CARS, WORKING WITH MOBILE APPLICATION IN "HAPPY" COMPANY IN RUSE

Assist. Prof. Dimitar Grozev, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 321
E-mail: dgrozev@uni-ruse.bg

Abstract: *This article explores the taxi transport market in Rousse. It consists of an analysis of the work done by the carriers in a taxi company operating under the conditions of Rousse. As a result, an analysis of the time of technological operations has been done during various years of research.*

Keywords: *mobile application, taxi cars, efficiency, custom requirements*

REFERENCES

Zakon za avtomobilnite prevozi, Obn. – DV, br. 82 ot 17.09.1999 g. (***Оригинално заглавие:*** *Закон за автомобилните превози; Обн. - ДВ, бр. 82 от 17.09.1999 г.; в сила от 17.09.1999 г.; изм., бр. 81 от 20.10.2015 г., в сила от 1.04.2016 г. - бр. 100 от 18.12.2015 г., в сила от 20.11.2015 г.*)

Naredba № 34 ot 6.12.1999 g. za taksimetrov prevoz na patnici. (***Оригинално заглавие:*** *Наредба № 34 от 6.12.1999 г. за таксиметров превоз на пътници). Издадена от Министерството на транспорта. изм. ДВ. бр.103 от 7 Декември 2007г.*)

Pencheva V., D. Simeonov, Optimizacia na organizaciata na taksimetrovite prevozi v stranara. (***Оригинално заглавие:*** *Пенчева В., Д. Симеонов. Оптимизация на организацията на таксиметрови превози в страната. В: Сборник доклади от X научно-техническа конференция с международно участие, ЕКО-Варна, Варна, 2004.*)

Simeonov D., V. Pencheva, Vzaimodeistvie na vidovete transport, RU, Ruse, 2001 (***Оригинално заглавие:*** *Симеонов Д., В. Пенчева, Взаимодействие на видовете транспорт, Русенски университет „Ангел Кънчев", Русе, 2001*)

Miteva D., V. Pencheva, D. Grozev. The role of key indicators for an assessment the quality of transport service in taxi transportations. IN: The 3rd International virtual conference THOMSON, Slovakia, 2015, pp. 168-171, ISBN 978-80-554-0866-8.)

Naredba № 35 ot 3.11.1999 g. za funkcionalnite i tehnicheskite iziskvania kum elektronnite kasovi apparati s fiskalna pamet. (***Оригинално заглавие:*** *Наредба № 35 От 3 Ноември 1999 Г. За функционалните и техническите изисквания към електронните таксиметрови апарати с фискална памет; Обн. ДВ. бр.97 от 9 Ноември 1999г., изм. ДВ. бр.95 от 21 Ноември 2000г.*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-2-TMS-12

INVESTIGATION AND MODELING OF ROAD TRAFFIC IN THE AREA OF INTERSECTIONS IN RUSE

Assist. Prof. Pavel Stoyanov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082 888 515
E-mail: pstoyanov@uni-ruse.bg

Abstract: *The paper shows the results of an application of system VISSIM to the microscopic simulation of traffic flow for a fragment of a real urban road network. First, the problem of traffic flow modelling and simulation was described, and the selected system is introduced. A crossroad on one of the main boulevards in the city of Ruse was chosen to be explored through a simulation model. The model examine the impact of traffic light cycle on the queue, the transport delay and the number of vehicles that have passed.*

Keywords: *traffic flow, urban, simulation, microscopic, VISSIM*

JEL Codes: L10, L11

REFERENCES

Lybenov, D.A. "Izsledvane na niakoi ot osnovnite harakteristiki na transpornia potok po ul. "Pliska" v grad Ruse. Любенов Д.А. „Изследване на някой от основните характеристики на транспортния поток по ул. "Плиска", гр. Русе". Trans & MOTAUTO 2011. с. 8 – 10. ISBN: 1310-3946.

Richard Arnott, Kenneth Small, The Economics of Traffic Congestion. American Scientist, Vol. 82, No. 5 (SEPTEMBER-OCTOBER 1994), pp. 446-455

D. M. Belmont, T. W. Forbes, Effect of average speed and volume on motor-vehicle accidents on two-lane tangents, Proceedings of the Highway Research Board, 32 (1953), pp. 383-395

A. Ceder, M. Livneh, Relationships between road accidents and hourly traffic flow. I. Analyses and interpretation. Accident Analysis and Prevention, 14 (1982), pp. 19-34

Phil Goodwin , Joyce Dargay, Mark Hanly, Elasticities of Road Traffic and Fuel Consumption with Respect to Price and Income: A Review. Transport Reviews, Volume 24, 2004 - Issue 3, pp 275-292

T. F. Golob, W. W. Recker, Relationships among urban freeway accidents, traffic flow, weather, and lighting conditions. Journal of Transportation Engineering, 129 (4) (2003), pp. 342-353

Chao Wang Mohammed, A. Quddus Stephen, G. Ison, Impact of traffic congestion on road accidents: A spatial analysis of the M25 motorway in England. Accident Analysis & Prevention Volume 41, Issue 4, July 2009, Pages 798-808

Kai Nagel, Peter Wagner, Richard Woesler, Still Flowing: Approaches to Traffic Flow and Traffic Jam Modeling. Operations Research 51, pp681-710

Mats Wilhelmsson, The Impact of Traffic Noise on the Values of Single-family Houses. Journal of Environmental Planning and Management, Volume 43, 2000 - Issue 6, pp. 799-815.

FRI-2.203-2-TMS-13

RESEARCH ON THE ORGANIZATION OF URBAN PASSENGER TRANSPORT IN RUSE

Rositsa Angelova, Eng.
Department of Transport,
Phone: 0877114260
"Angel Kanchev" Univesity of Ruse
E-mail: rhangelova@uni-ruse.bg

Abstract: *The routing scheme of the passager transport, the distribution of the routes and their traffic are examined. Qualitative and quantitative route metrics are defined. Different suggestions are made to optimize the route network.*

Keywords: *Passager transport, Route network, Qualitative route metrics, Quantitative route metrics*

JEL Codes: *L10, L11*

REFERENCES

Simeonov, D.G (1987) Patnicheski avtomobilni prevozi (***Оригинално заглавие:*** *Симеонов, Д.Г. Пътнически автомобилни превози 1987*).

Simeonov, D.G., Pencheva, V.I., (2001) Vzaimodeistvie na vidovete transport (***Оригинално заглавие:*** *Симеонов, Д.Г., Пенчева, В.И., (2001) Взаимодействие на видовете транспорт-Русе-2001)*

Simeonov, D., Marinov, M., Gelkov, Zh., Pencheva, V. (2003) Rakovodstvo za uprajneniya po tehnologiya i organizaciya na avtomobilnite prevozi. (***Оригинално заглавие:*** *Симеонов, Д., Маринов, М., Гелков, Ж., Пенчева, В., Ръководство за упражнения по технология и организация на автомобилните превози 2003*)

Stamenov V.N. (1991) Analiz na organizatsiya i upravlenieto na prevoznite protsesi v gradskiya patnicheski transport (***Оригинално заглавие:*** *Стаменов В.Н. Анализ на организацията и управлението на превозните процеси в градски пътнически транспорт, НТС на ВВТУ "Т.Каблешков", София 1991г.*)

Tsvetkova S. Analiz na gradskiya patnichewski transport na Sofiya (2016). (***Оригинално заглавие:*** *Цветкова С. Анализ на градския пътнически транспорт на София и насоки за неговото развитие 2016 Издателски комплекс – УНСС*)

Obshtina Ruse otdel transport (Община Русе – отдел транспорт)

URL: https://transport.ruse-bg.eu/pt/

http://www.hotelschool.cornell.edu/chr/pdf/showpdf/chr/research/working/revenuemanage.pdf (Accessed on 16.12.2005).

 Copyrights© http://conf.uni-ruse.bg

FRI-2.203-2-TMS-14

THE IMPACT OF URBAN PASSAGER TRANSPORT TO THE ENVIRONMENT IS ASSESSED

Rositsa Angelova, Eng.
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 231
E-mail: rhangelova@uni-ruse.bg

Prof Velizara Pencheva, DcS
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 377
E-mail: vpencheva@uni-ruse.bg

Assist. Prof. Dimitar Grozev, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 231
E-mail: dgrozev@uni-ruse.bg

Assist. Prof. Pavel Stoyanov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 515
E-mail: pstoyanov@uni-ruse.bg

Abstract: *An analysis on the impact of the transport in Ruse has been developed. Considered are system of factors that determine the quality of the environment. Different solutions are proposed to reduce the negative impact of transportation to the environment.*

Keywords: *Transport, The quality of the environment, Solutions, Impact to the environment.*

JEL Codes: *L10, L11*

REFERENCES

Asenov.A., Pencheva V., Beloev H. (2008) Teoretichen model za otsenyavane otdelyanite gazove ot avtomobilniya transport v okolnata sreda MotAuto`08, Sozopol, 2008 (***Оригинално заглавие:*** *Теоретичен модел за оценяване отделяните газове от автомобилния транспорт в околната среда MotAuto`08, Созопол 2008*)

Barzev K., Stankov E., Ekologichni problem na transporta Ruse (2007) (***Оригинално заглавие:*** *Екологични проблеми на транспорта Русе 2007*)

European Commission Transport

URL: https://ec.europa.eu/transport/themes/urban/urban_mobility/commission-support_en

Izpalnitelna agentsiya po okolnata sreda – Natsionalen doklad za sastoyanieto I opazvaneto na okolnata sreda v R.Balgriya (2015) (***Оригинално заглавие:*** *Изпълнителна агенция по околната среда - Национален доклад за състоянието и опазването на околната среда в Р. България*)

URL: http://eea.government.bg/bg/soer/2015/transport/transport

Natsionalen statisticheski institut.Natsionalen statisticheski godishnik (2017).(***Оригинално заглавие*:** *Национален статистически институт.Национален статистически годишник 2017.*)

FRI-2.203-2-TMS-15

ANALYSIS OF THE TRANSPORT WORK IN THE COMPANY " ACT LOGISTICS"

Assist. Prof. Dimitar Grozev, PhD
Transport Department,
University of Ruse "Angel Kanchev"
Tel.: 082 888 352
E-mail: dgrozev@uni-ruse.bg

Assist. Prof. Mihail Milchev, PhD
Transport Department,
University of Ruse "Angel Kanchev"
Tel.: 082 888 352
E-mail: mmilchev@uni-ruse.bg

Abstract: *This report considers competition as an objective instrument for regulating the market for transport goods and services, which is the reason for the bankruptcy of many companies in the transport industry. The goal is to evaluate correctly the competition factors that directly affect the development of Act Logistics. The method of analytical decision making is applied in the study. The current situation in the market and the activity of the surveyed company is analyzed. Proposals for the development of Act Logistics have been made.*

Keywords: *Logistics Company, Factors, Transport Market, Effectiveness, Spedition, Warehousing.*

REFERENCES

CMR Convention (1977) (***Оригинално заглавие:*** *Конвенция за договора за международен автомобилен транспрот на стоки CMR., Ратифицирана с указ No. 1144 на Държавния съвет от 29.07.1977 г. Обн., ДВ, бр. 61 от 5.08.1977 г. В сила за България от 20.04.1978 г.*)

Kirova, A., A. Dmitrova (1994). Mezhdunarodni tovarni prevozi, Кирова, Sofia, Univ. izd. Stopanstvo 1994, Siganture: Cb 180197 (***Оригинално заглавие:*** А., А.Димитрова, Международни товарни превози, София Унив. изд. Стопанство 1994, Сигнатура: Цб 180197)

Transport in the European Union Current Trends and Issues, European commission report, (April 2018), https://ec.europa.eu/transport/sites/transport/files/2018-transport-in-the-eu-current-trends-and-issues.pdf

TIR Convention (1975) (***Оригинално заглавие:*** Митническа конвенция относно международния превоз на стоки под покритието на карнети ТИР (Конвенция ТИР от 1975 г.), Обн. - ДВ, бр. 7 от 27.01.2004 г., в сила от 20.04.1978 г.; Ратифицирана с Указ № 1144 на ДС от 1977 г. - ДВ, бр. 61 от 5.08.1977 г.)

Webpage of logistics and distribution services provider - http://act-logistics.com/.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.404-1-EM

FRI-2G.404-1-EM-01

ANALYSES OF THE INNOVATION ACTIVITY AND PROTECTION OF THE INNOVATIVE PRODUCTS THROUGH INTELLECTUAL PROPERTY RIGHTS AT THE SMALL BULGARIAN BUSINESSES

Neli Rasheva, PhD candidate
Department of Management and Businiess Development
Faculty Business and Management,
Univesity of Ruse „Angel Kanchev", Bulgaria
Tel: +359884343132
E-mail: nrasheva@abv.bg

Assoc. Prof. Daniel Pavlov, PhD
Department of Management and Businiess Development
Faculty Business and Management,
Univesity of Ruse „Angel Kanchev", Bulgaria
Tel: +359884343132
E-mail: dpavlov@uni-ruse.bg

Abstract: *The Intellectual property rights* (*IPR*) *have increasing influence on the innovation activity of the Bulgarian small businesses. Therefore the focus on this report is on the linkages between the innovation activity and the Intellectual property rights as a precondition for the successful growth management.*

Keywords: *Intellectual property rights* (*IPR*)*, innovation, growth management*

JEL Codes: *M10, O34,*

REFERENCES

Deneva,A. i dr. (2016) Savremenni formi na savmesten biznes. Almanah na nauchni izsledvania. SA D.A.Cenov. Svishtov,2016, br.23, s. 5-35, Izdatelstvo IA Cenov, ISSN: 1312-3815) (***Оригинално заглавие:*** *Анета Денева, Искра Пантелеева, Христина Атанасова, Елена Йорданова, Йоана Петрова, ивайло костов, Мариела Вакинова-Петрова, Пламен Пантелеев, Румяна Ангелова. Съвременни форми за съвместен бизнес // Алманах научни изследвания. СА Д. А. Ценов - Свищов, 2016, бр.23, с.5-35, Издателство: АИ Ценов, ISSN: 1312-3815*)

Evgeni Petrov Stanimirov, Vladimir Sashov Zhechev, Maria Radoslavova Stanimirova. (2016) Strategic Readiness for CRM Process Management: the Case of Business Service Companies in Bulgaria // Sarajevo Journal of Social Sciences; Faculty of Business and Administration; International University of Sarajevo; ISJSS; ISSN 2303-7105, Vol 2, No 1 (2016)

EUIPO. (2016). Intellectual property rights intensive industries and economic performance in the European Union. Published at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/-document_library/observatory/documents/IPContributionStudy/performance_in_the_European_Union/performance_in_the_European_Union_full.pdf

Fondatsia Prilozni izsledvaniya i komunikatsii. (2017). Bulgaria v globalnite tehnologichni verigi. (***Оригинално заглавие:*** *Фондация „Приложни изследвания и комуникации" Иновации.бг. България в глобалните технологични вериги, 2017*)

GEM. Natsionalen doklad na GEM za predpriemachestvoto v Bulgaria. Godishen doklad 2016/2017. GEM. (***Оригинално заглавие:*** *GEM. Национален доклад на GEM за предприемачеството в България, Годишен доклад 2016/2017*).

IANMSP. (2013). Izsledvane na predpriemachestvoto I perspektivite za razvitie na inovatsiite v MSP. Sofia, 2013. (***Оригинално заглавие:*** *ИАНМСП. Изследване на предприемачеството и перспективите за развитие на иновациите в МСП. Дирекция „Развитие и интернационализация на малките и средните предприятия“, София, 2013*).

Idris Kamil. (2006). Intelektualnata sobstvenost – moshtno sredstvo za ikonomicheski rastez. IP Bulgaria. (***Оригинално заглавие:*** *Идрис, Камил. Интелектуалната собственост мощно средство за икономически растеж. IP Bulgaria, 2006*)

Mitev, I. (2000). Intelektualnata sobstvenost na granitsata na dve hilyadoletiya. Avangard Print OOD. (***Оригинално заглавие:*** *Митев, К. Интелектуалната собственост на границата на две хилядолетия. Авангард принт. 2000*)

NSI. (2016). Inovatsionna deinost na predpriyatiyata prez perioda 2014-2016. (***Оригинално заглавие:*** *НСИ. Иновационна дейност на предприятията през периода 2014-2016, ww.nsi.bg/sites/default/files/files/pressreleases/NIRD_Innovation2016_FB3CA2F.pdf*)

Panteleeva, I., Varamezov, L., Kostadinova, N. (2018). Inovatsii i intelektualna sobstvenost – sastoyanie I vliyanie varhu firmenoto razvitie. Almanh nauchni izsledvaniya, tom 25, chast 1. (***Оригинално заглавие:*** *Пантелеева, И., Варамезов, Л., Костадинова, Н. Иновации и интелектуална собственост – състояние и влияние върху фирменото развитие. Алманах научни изследвания, том 25, 2018, част I.*)

Patentsno vedomstvo na Bulgaria. (2017). Godishen otchet. (***Оригинално заглавие:*** *Патентно ведомство на Р.България. Годишен отчет 2017 г.*)

Vitanov, N. (2013). Bulgaria i inovatsiite. Kakvo stava po sveta I kak to se izkrivyava u nas? Institut po mehanika na BAN. (***Оригинално заглавие:*** *Николай Витанов. България и иновациите. Какво става по света и как то се изкривява у нас? Институт по механика на БАН. 2013. https://nauka.bg/2013/53/Bulgaria-i-inovaciite-2013.pdf*)

Zagorcheva, D. (2016). Model za opredeliane investicionnata privlekatelnost na obshtinite v Balgaria. Nauchna konferencia na RU&SU, 2016, s.s. 63-67 (***Оригинално заглавие:*** *Загорчева, Д. 2016 Модел за определяне на инвестиционната привлекателност на общините в България, Научна конференция на РУ&СУ, 2016, с.с.63-67. http://conf.uni-ruse.bg/bg/docs/cp16/5.1/5.1-11.pdf* (*Accessed on 19.02.2017*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.404-1-EM-02

FOREIGN DIRECT INVESTMENT – IMPORTANCE MAIN CHANGES AND TRENDS

Anzhela Petrova, PhD
Department of Economics,
"Angel Kanchev" University of Ruse
E-mail: apetrova@uni-ruse.bg

Abstract: *One of the main trends in society today is the increase of rates and scales of the interconnection between economies, the internationalization of financial markets and the transnationalization of production. The international movement of capital, and more specifically of foreign investments, lies at the base of these processes. Foreign direct investment (FDI) contribute to the development of local economies and to the gaining of competitive advantages over the other participants on the international market. Through FDI are established cross-border commercial relationships, which lead to intensified development, technological innovations and modernization of national economies. This report analyses the importance of FDI for development and improvement of the competitiveness of Bulgarian economy. In addition, the movement of FDI, together with the main changes and trends having taken place during the different periods, has been reviewed.*

Kay words: *Investment, Foreign direct investment, Transnational corporations, Competitiveness, Innovations*

REFERENCES

Karakasheva, L. (2011). Mezhdunarodni investitsionni proekti. Sofia: Izdatelska kashta "Prizma", p.12 (***Оригинално заглавие:*** *Каракашева, Л., 2011. Международни инвестиционни проекти. София: Издателска къща „Призма", с.12*)

UNCTAD, (2011). World Investment Report 2011, Non-equity models of international production and development, United Nations, New York and Geneva, p.12. URL:

http://unctad.org/en/PublicationsLibrary/wir2011_en.pdf (Accessed: August 2018)

UNCTAD, (2013). World Investment Report 2013, Global value chains: Investment and trade for development, United Nations, New York and Geneva, p.12-14. URL:

http://unctad.org/en/PublicationsLibrary/wir2013_en.pdf (Accessed: August 2018)

UNCTAD, (2016). World Investment Report 2016, Investor nationality: Policy challenges, United Nations, New York and Geneva, p.10. URL:

http://unctad.org/en/PublicationsLibrary/wir2016_en.pdf (Accessed: August 2018)

UNCTAD, (2018). World Investment Report 2018, Investment and new industrial policies, United Nations, New York and Geneva, p.11. URL:

http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf (Accessed: August 2018)

http://www.bnb.bg/ (Accessed: August 2018)

FRI-2G.404-1-EM-03

MODELS FOR THE DEVELOPMENT OF AGRICULTURAL COOPERATION IN BULGARIA

Mihail Bilev - PhD Student
Faculty of Industry and Commerce
Department of Agricultural Economics
D. A. Tsenov Academy of Economics - Svishtov
Tel.: 088 2027451
E-mail: m.nikolova@uni-svishtov.bg

Abstract: *The paper reviews existing models for the development of agricultural cooperatives in Bulgaria. The conducted research proves that for the survival and development of the functioning agricultural cooperatives in Bulgaria internal restructuring is needed –market orientation of the business, closure of unprofitable activities, choice of organizational cooperative form depending on the optimal utilization of the available production factors. Such internal-organizational restructuring takes place in a large part of the agricultural cooperatives, which have administrative, production and financial capacity.*

Разработката изследва възможните модели за развитие на земеделските кооперации в България. Осъщественото изследване доказва, че за оцеляването и развитието на функциониращите земеделски кооперации в България е необходимо вътрешно преструктуриране – пазарна ориентация на бизнеса, закриване на нерентабилните дейности, избор на организационна кооперативна форма в зависимост от оптималното оползотворяване на разполагаемите производствени фактори. Такова вътрешно-организационно преструктуриране се осъществява в немалка част от земеделските кооперации, които разполагат с административен, производствен и финансов капацитет.

Keywords: *Kooperative, Solvency, Indebtedness, Profitability, Functional Model*

JEL Codes: *Q12, Q13, L11, L23*

REFERENCES

Dojchinova, J. (2011) Evolucia na kooperativnite modeli i formi: ot kooperacii kam socialni predpriatia. ikonomikata i upravlenieto v xxi vek – reshenia za stabilnost i rasteg, t. 6, pp. 262-269, Svishtov, AI “Cenov” (***Оригинално заглавие:*** *Дойчинова, Ю.* (*2011*). *Еволюция на кооперативните модели и форми: от кооперации към социални предприятия. Икономиката и управлението в xxi век - решения за стабилност и растеж, Т. 6.* (*pp. 262-269.*). *Свищов: АИ Ценов.*)

Linkova, M. (1995) Analiz na likvidnostta i platejosposobnostta na firmata. Kontrolat i ikonomicheskia analiz pri pazarnoto stopansyvo - efektivnost i racionalnost, Svishtov, AI "Cenov"(***Оригинално заглавие:*** *Линкова, М.* (*1995*). *Анализ на ликвидността и платежоспособността на фирмата. Контролът и икономическият анализ при пазарното стопанство – ефективност и рационалност* (*pp. 259-263*). *Свищов: АИ „Ценов”.*)

Linkova, M. (2007) Upravlenie na firmenite vzemaniq v agrarnoto predpriqtie. Ubileen almanah "Menagement na 21 vek", Svishtov, AI "Cenov" (***Оригинално заглавие:*** *Линкова, М.* (*2007*). *Управление на вземанията в аграрното предприятие. Юбилеен алманах: Мениджмънт на 21 век* (*pp. 206-215*). *Свищов: АИ”Ценов”*)

Linkova, M. (3/1994) Platejosposobnostta - faktor za upravlenie na firmata. Biznesupravlenie, Svishtov, AI "Cenov" (***Оригинално заглавие:*** *Линкова, М. (3/1994). Платежоспособността – фактор за управление на фирмата. Б и з н е с управление, Свищов.*)

Linkova, M. (3-4/2008) Upravlenie na vzemaniqta kato instrument za ustojchivo razvitie na agrarnoto predpriqtie, Upravlenie i ustojchivo razvitie, LTU, Sofia (***Оригинално заглавие:*** *Линкова, М.* (*3-4/2008*). *Управление на фирмените вземания като инструмент за устойчиво развитие на аграрното предприятие. Управление и устойчиво развитие, ЛТУ,*

 Copyrights© http://conf.uni-ruse.bg

София.)

Mihailov, M. (2004) Analiz na finansovata ustojchivost na zemedelskite proizvoditeli, kandidatstvasti za finansirane. Predizvikatelstvata pred agrarnia sektor pri prisaediniavaneto kam ES, pp. 209-211, Svishtov, AI "Cenov", Svishtov. (***Оригинално заглавие:*** *Михайлов, М. и.* (*2004*)*. Анализ на финансовата устойчивост на земеделските производители, кандидатстващи за финансиране. Предизвикателствата пред аграрния сектор при присъединяване към Европейския съюз* (*pp. 209-211*)*. Свищов: АИ "Ценов".*)

Petrov, V. i (2000). Osnovi na statistikata, V. Tarnovo, Abagar. (***Оригинално заглавие:*** Петров, В. и. (2000). Основи на статистиката. В. Търново: Абагар.)

Patev, P. (11/2000) Upravlenie na vzemaniata na mevdunarodnata firma. Ikonomika, 9-10. (***Оригинално заглавие:*** *Пътев, П. (11/2000). Управление на вземанията на международната фирма. Икономика, 9-10*).

Holst, D. i (2002) Finansov analiz, V. Tarnovo, Abagar.(***Оригинално заглавие:*** *Холст, Д. В. (2002). Финансов анализ. В. Търново: Абагар*).

FRI-2G.404-1-EM-04

BULGARIAN MARKETS FOR HIGH NATURE VALUE PRODUCTS

Assoc. Prof. Lyubomir Lyubenov, PhD
Department of Economics,
"Angel Kanchev" University of Ruse
E-mail: LLyubenov@uni-ruse.bg

Abstract: *The markets for high nature value products, such as truffles, herbs and snails, are generators for factor market development, job creation, income diversification, and revenue for the national budget. The aim of the study is to identify the state and development potential of these markets in Bulgaria. They primarily operate as a non-organized wholesale market for high nature value raw materials, which mainly benefit foreign buyers who export them. The high consumer value and uniqueness of these products provides a solid basis and opportunities for auctioning, etc. organized markets in Bulgaria. The truffle market is about 200 million leva per year. The herb market is over 70 million leva per year. The snail market is over BGN 6 million / yr. These markets have a significant potential that can be realized with growing global demand. The development of the slug mucus market will provide additional opportunities.*

Kay words: *Bulgarian, markets, truffles, herbs, snails.*

REFERENCES

Agraren doklad 2016, 2017, Ministerstwo na zemedelieto i hranite, Sofia (***Оригинално заглавие:*** *Аграрен доклад 2016, 2017, Министерство на земеделието, храните и горите, София.*)

Zakon za biologichnoto raznoobrazie 2017 (***Оригинално заглавие:*** *Закон за биологичното разнообразие, Обн. ДВ. бр. 77 от 09.08.2002, посл. изм. и доп. ДВ. бр. 76 от 19.09.2017*)

Zakon za lechebnite rastenia 2017 (***Оригинално заглавие:*** *Закон за лечебните растения, Обн. ДВ. бр. 29 от 07.04.2000, посл. изм. и доп. ДВ. бр. 96 от 01.12.2017*)

Lyubenov L. 2017. Neorganiziranite agropazari v Bulgaria (***Оригинално заглавие:*** *Любенов Л., 2017, Неорганизираните агропазари в България, Икономическа мисъл, кн. 4, София*)

Naredba № 5 ot 19.07.2004 (***Оригинално заглавие:*** *Наредба № 5 от 19.07.2004 г. за изискванията, на които трябва да отговарят билкозаготвителните пунктове и складовете за билки, Издадена от Министерството на здравеопазването и Министерството на околната среда и водите, Обн. ДВ. бр. 85 от 28.09.2004*)

Lyubenov L, 2012, A priori study of marketing innovation strategies of agricultural enterprises in Bulgaria, Economic Studies, book 4

https://www.agronet.bg/agro/20828-e95ab8a836441eadc25318a3bfa9c8e3.html, 10.11.2017.

http://exporter.bg/index.php?option=com_content&view=article&id=1038:-35-&catid=8:2011-06-07-14-21-02&Itemid=14

https://news.bg/economics/4-ti-sme-po-iznos-na-bilki-v-sveta.html, 26.11.2013

http://paper.standartnews.com/bg/article.php?d=2016-09-27&article=264499

https://trud.bg, 22.06.2018

https://dariknews.bg/novini/biznes/koi-sa-naj-tyrsenite-bylgarski-bilki-v-chuzhbina-1586160, 22.06.2016

https://news.bg/society/blizo-100-tona-ohlyuvi-po-malko-izkupeni-prez-tazi-godina.html, 12.07.2006

http://touchstonesnailfranchise.com/snail-market/, 2014

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.404-1-EM-05

LEASING MARKET OF AGRICULTURAL ENGINEERING IN BULGARIA

Asist. Prof. engineer, Seraozha Kosev, PhD
Department of Agricultural Economics,
D. A. Tsenov Academy of Economics, Svishtov, Bulgaria
Tel.: +359 897723036
E-mail: s.kosev@uni-svishtov.bg

Abstract: *The present paper reviews the leasing market and its significance for the development of modern agriculture. It outlines the fundamental stages in the formation of a leasing market in Bulgaria. The article reviews the structure of financial leasing loans as well as the trends in the utilization of fixed capital and its structure in agribusiness revealing the significance of leasing for the technological upgrading in agribusiness.*

Keywords: *leasing, market, agribusiness, fixed capital*

REFERENCES

http://www.bnb.bg/PressOffice/POStatisticalPressReleases/POPRSLeasingCompanies/index.htm. (н.д.).

http://www.leasing-bulgaria.org/images/statistic_1_2008_Q2_bg.gif. (н.д.).

Berov, L. (mart, 1991). Traditsii i vazmozhnosti na zemedelskiya kredit v Balgariya. B a n k o v pregled, 16. (***Оригално заглавие:*** *Беров, Л. (март, 1991). Традиции и възможности на земеделския кредит в България. Б а н к о в преглед, 16*).

Karakasheva, L. L. (2001). Mezhdunaroden biznes. Sofiya: Prizma. (***Оригално заглавие:*** *Каракашева, Л. Л. (2001). Международен бизнес. София: Призма*).

Linkova, M. (19/2012). Parametri na lokalizatsionniya izbor za investitsii v agrofirmite. Svishtov: AI „Tsenov". (***Оригално заглавие:*** *Линкова, М. (19/2012). Параметри на локализационния избор за инвестиции в агрофирмите. Свищов: АИ „Ценов"*).

Linkova, M. (2008). Sdelki s targovski vzemaniya - vazmozhnosti za razvitie v balgarskata praktika i agrosektora. Godishen almanah Nauchni izsledvaniya na dokoranti, kniga I, 160-181. (***Оригално заглавие:*** *Линкова, М.* (*2008*). *Сделки с търговски вземания - възможности за развитие в българската практика и агросектора. Годишен алманах Научни изследвания на докоранти, книга I, 160-181*).

Linkova, M. (2009). Sdelkite s targovski vzemaniya v Balgariya i vazmozhnostite za prilozhenieto im v agrofirmite. disertatsiya. (***Оригално заглавие:*** *Линкова, М.* (*2009*). *Сделките с търговски вземания в България и възможностите за приложението им в агрофирмите. дисертация.*)

Naydenov, B. (1995). Lizingat - finansov i praven aspekt. Sofiya: Siela. (***Оригинално заглавие:*** *Найденов, Б. (1995). Лизингът - финансов и правен аспект. София: Сиела*).

FRI-2G.404-1-EM-06

PRACTICAL ASPECTS OF INNOVATIVE LEASING IN AGROBUSINESS

Asist. Prof. engineer, Seraozha Kosev, PhD
Department of Agricultural Economics,
D. A. Tsenov Academy of Economics, Svishtov, Bulgaria
Tel.: +359 897723036
E-mail: s.kosev@uni-svishtov.bg

Abstract: *This paper's goal is to argue that innovative leasing is one of the approaches for effectively solving investment challenges in the innovative development in agribusiness. The significance of leasing transactions at present is related to dynamic structural changes in a number of business areas and the outdated equipment and technology as well on the one hand; there are strict long-term loan requirements on a national and international scale on the other.*

Keywords: *leasing, innovations, agribusiness, finance*

REFERENCES

http://enterprise-europe-network.bg/2880/indeks-na-inovatsionnata-aktivnost-na-balgarskite predpriyatiya/. (н.д.).

https://ec.europa.eu/eurostat/web/microdata/community-innovation-survey. (н.д.).

https://www.capital.bg/biznes/kompanii/2016/12/07/2878703_koi_sa_inovativnite_predpriatiia_na_2016_g/. (н.д.).

Аюпов, А. (2002). Инновационный лизинг в банке. , . Казань: ТИСБИ.

Dobreva, D. M. (2005). Organizatsiya i otchitane na targovskite sdelki. Svishtov: AI "Tsenov" (***Оригинално заглавие:*** *Добрева, Д. М. (2005). Организация и отчитане на търговските сделки. Свищов: АИ "Ценов".*)

Karakasheva, L. L. (2001). Mezhdunaroden biznes. Sofiya: Prizma (***Оригинално заглавие:*** Каракашева, Л. Л. (2001). Международен бизнес. София: Призма.)

Milanov, S. (5 05 1999 r.). Lizingat v svetovnata ikonomika. Ikonomicheski zhivot. (***Оригинално заглавие:*** *Миланов, С. (5 05 1999 г.). Лизингът в световната икономика. Икономически живот.*)

Mihaylov, E. M. (2003). Bankovo obsluzhvane na ikonomicheskite agenti. V. Tarnovo: Abagar. (***Оригинално заглавие:*** Михайлов, Е. М. (2003). Банково обслужване на икономическите агенти. В. Търново: Абагар.)

Naydenov, B. (1995). Lizingat - finansov i praven aspekt. Sofiya: Siela. (***Оригинално заглавие:*** *Найденов, Б. (1995). Лизингът - финансов и правен аспект. София: Сиела.*)

Pavlova, M. (1998). Lizing - ikonomicheski i finansovo schetovodni problemi. V. Tarnovo. (***Оригинално заглавие:*** *Павлова, М. (1998). Лизинг - икономически и финансово счетоводни проблеми. В. Търново.*)

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.404-1-EM-07

PUBLIC SPENDING AND ITS IMPACT ON GROSS DOMESTIC PRODUCT (GDP)

Assoc. Prof. Kamelia Assenova, PhD
Department of Economics,
"Angel Kanchev" University of Ruse
Phone: 082-888 557
E-mail: kassenova@uni-ruse.bg, kamelia_a@yahoo.com

Abstract: *The global recession after the crisis during 2008 reduces the Gross domestic product (GDP) and increases quickly unemployment in all over the world. As it known, to be overcame the recession, it is possible to put in the practice monetary and fiscal instruments. First of them influence on expected inflation, with second of them it looks for to be increased aggregate demand in the economy and as a result - GDP. The last recession requires more aggressive actions comparing with previous.*

It is created original model for testing of the impact of total public spending, capital, public spending for salary and social insurance and public spending for maintenance by consolidated state budget on value of GDP. The period of research is 2005 – 2013 in the case of Bulgaria.

In conclusion, the coefficient of determination shows strong correlation between GDP and public spending by the consolidated state budget. The calculated coefficients of correlation between aggregate supply and capital spending, and such for salary and social insurance maintain the stimulating of economic activity in the country significantly depends on public spending.

Keywords: *Public spending, GDP Growth, regression model*

JEL Codes: H50, E62, C13

REFERENCES

Andersen, Alberto and Jerry Jordan, (1968), "Monetary and Fiscal Action: A Test of their Relative Importance in Economic Stabilization", Review, FRS of St. Louis, p. 11-24

Barro, Robert J., (1984), "Rational Expectations Macroeconomics in 1984", American Economic Review, vol. 74 (2), p.179-184

Batiz, L.A. and A.N. Sy, (2000), "Currency Boards, Credibility and Macroeconomic Behaviour", IMF, Working Paper 97

Bernanke Ben, M. Gertler and Simon Gilchrist, (1994), "The Financial Accelerator in a Quantitative Business Cycle Framework", in John Taylor and Michael Woodford Handbook of Macroeconomics, vol. 10

Carvalho, Carlos, Stefano Eusepi and Christian Grisse, (2012), "Policy Initiatives in the Global Recession: What Did Forecasters Expert?", Federal Reserve Bank of New York, Current issues in Economics and Finance, Volume 18, N 2

Hollmayr, Josef, (2013), "Fiscal Policy in Euro Area analyzed with a New – Keynesian Multi – Country Model", Deutsche Bundesbank, Frankfurt of Main

King, Robert G., (1993),"Will the New Keynesian Macroeconomics Resurrect the IS-LM Model", Journal of Economic Perspectives, 7

Kirchgeassner, Gebhard and Marsel Savioz, (2001) "Monetary Policy and Forecast for GDP Growth: An Empirical Investigation for the Federal Republic of Germany", German Economic Review, Vol.2

McMallum, Bennett T. and Edward Nelson, (1997),"An optimizing IS- LM Specification for Monetary Policy and Business Cycle Analysis", NBER, Working paper 5875

Romer, David, (1999), "Short run Fluctuations", University of California

Romer, David, (2000), "Keynesian macroeconomics without the LM – curve", NBER, Working paper 7461

FRI-2G.404-1-EM-07

THEORETICAL ASPECTS OF THE IMPACT OF CONFLICTS ON EMPLOYEE MOTIVATION

Svilena Ruskova, PhD
Faculty of Business and Management
"Angel Kanchev" University of Ruse
E-mail: sruskova@uni-ruse.bg

Ivalina Ruseva
Faculty of Business and Management
"Angel Kanchev" University of Ruse
E-mail: ivalinaruseva@gmail.com

Abstract: *In this paper are discussed the nature of conflicts and their influences of employee motivation. The article presents two functions of the conflicts - positive and negative. They will have a positive impact when they are effectively managed. In the other case, if we avoid them the problems will be unauthorized and the conflicts will have a negative effect on employee motivation.*

Keywords: *conflicts, influences, positive, negative, motivation, motivated staff*

JEL Codes: *D21, D22*

REFERENCES

Armstring, M., (1993). Narachnik za upravlenie na choveshkite resursi. Izdatelstvo "Delfin pres" (***Оригинално заглавие:*** *Армстронг, М., 1993. Наръчник за управление на човешките ресурси. Издателство "Делфин прес".*)

Georgiev, N., (2005). Konfliktat v biznesorganizaciite. Izdatelstvo Stopanska akademiya "D. A. Cenov" (***Оригинално заглавие:*** *Георгиев, Н., 2005. Конфликтът в бизнесорганизациите. Издателство Стопанска академия "Д. А. Ценов".*)

Dimitrov, D., (2004). Konfliktologiya. Izdatelstvo „UI Stopanstvo" (***Оригинално заглавие:*** *Димитров, Д., 2004. Конфликтология. Издателство „УИ Стопанство".*)

Evgeniev, G., Bliznakov, Y., Paunov, M., Atanasova, M., (1993). Organizacionno povedenie (***Оригинално заглавие:*** *Евгениев, Г., Близнаков, И., Паунов, М., Атанасова, М., 1993. Организационно поведение.*)

Sirashki, H., (2015). Motivaciya: Izbrani lekcii. Akademichno izdatelstvo "Cenov" pri Stopanska akademiya "Dimitar A. Cenov" (***Оригинално заглавие:*** *Сирашки, Х., 2015. Мотивация: Избрани лекции. Академично издателсво „Ценов" при Стопанска академия „Димитър А. Ценов".*)

Cvetanova, I., (2010). Motivaciq i stress v organizacionnata sreda//Izv. Sayuza na uchenite (***Оригинално заглавие:*** *Цветанова, И., 2010. Мотивация и стрес в организационната среда //Изв. Съюза на учените.*)

Harvard Business School Press, prev. ot ang. , Karieva, R., (2005), Idealniyat ekip, koyto raboti kato chasovnikov mehanizym, Izdatelstvo "Locus". (***Оригинално заглавие:*** *Кариева, Р., 2005. Идеалният екип, който работи като часовников механизъм. Издателство „Локус".*)

Stagner, Ross, (1967) Psychological Aspects of International Conflict. Belmont, CA: Brooks/Cole

URL:https://www.itce.com/, (Accessed on 23.04.2018)

FRI-2G.404-1-EM-09

METHODOLOGY FOR INITIATING A PUBLIC-PRIVATE PARTNERSHIP WITH A HIGHER EDUCATION INSTITUTION

Diana Avramova, PhD candidate
Department of Management and Businiess Development
Faculty Business and Management,
Univesity of Ruse „Angel Kanchev", Bulgaria
Tel: +359889517349
E-mail: davramova@uni-ruse.bg

Assoc. Prof. Daniel Pavlov, PhD
Department of Management and Businiess Development
Faculty Business and Management,
Univesity of Ruse „Angel Kanchev", Bulgaria
Tel: +359884343132
E-mail: dpavlov@uni-ruse.bg

Abstract: *Public Private Partnership is a tool that can help universities to attract an additional flow of resources to modernize and increase their impact on innovation. In the scientific literature there is no detailed information on the phase of initiating PPPs. The aim of this paper is to present a methodology for initiating a public-private partnership with a higher education institution.*

Keywords: *PPP, initiate, methodology, university*

JEL Codes: *M10, I20*

REFERENCES

Deneva,A. i dr. (2016) Savremenni formi na savmesten biznes. Almanah na nauchni izsledvania. SA D.A.Cenov. Svishtov,2016, br.23, s. 5-35, Izdatelstvo IA Cenov, ISSN: 1312-3815) (***Оригинално заглавие:*** *Анета Денева, Искра Пантелеева, Христина Атанасова, Елена Йорданова, Йоана Петрова, ивайло костов, Мариела Вакинова-Петрова, Пламен Пантелеев, Румяна Ангелова. Съвременни форми за съвместен бизнес // Алманах научни изследвания. СА Д. А. Ценов - Свищов, 2016, бр.23, с.5-35, Издателство: АИ Ценов, ISSN: 1312-3815*)

Kanev, E. (2011). Publichno-chastno partniorstvo. Principi, model i politiki za chastno predlagane na publichni uslugi. Izdatelstvo „Iztok-Zapad", ISBN 978-954-321-823-3. (***Оригинално заглавие:*** *Кънев, Е., 2011. Публично-частно партньорство. Принципи, модели и политики за частно предлагане на публични услуги. Изд. „Изток-Запад"*);

Ministerski savet. Saveta po decentralizacia na darjavnoto upravlenie,(2009), Prakticheskо pomagalo. Metodika I primerni obrazci na dogovori za realizirane na publichno-chastno partniorstvo ot mestnata vlast. Sofia,2009.

URL:www.self.government.bg/download.php?p=67756964655f7070702e706466&r=3132 34343831353232332e706466 (Accessed on 15.08.2018). (***Оригинално заглавие:*** *Министерски съвет. Съвет за децентрализация на държавното управление. Практическо помагало. Методика и примерни образци на договори за реализиране на публично-частно партньорство от местната власт. София, 2009.*)

URL:www.self.government.bg/download.php?p=67756964655f7070702e706466&r=3132 34343831353232332e706466)

MON. (2014). Strategia za razvitie na visheto obrazovanie v Republika Balgaria za perioda 2014–2020 g. Sofia, 2014. URL: http://www.strategy.bg/FileHandler.ashx?fileId=4620 (Accessed

on 15.08.2018). (***Оригинално заглавие:*** *МОН., 2014 Стратегия за развитие на висшето образование в Р. България за периода 2014-2020 г.София, 2014*).

http://www.strategy.bg/FileHandler.ashx?fileId=4620)

Zagorcheva, D. (2016). Model za opredeliane investicionnata privlekatelnost na obshtinite v Balgaria. Nauchna konferencia na RU&SU, 2016, s.s. 63-67

URL:http://conf.uni-ruse.bg/bg/docs/cp16/5.1/5.1-11.pdf (Accessed on 19.02.2017) (***Оригинално заглавие:*** *Загорчева, Д. 2016 Модел за определяне на инвестиционната привлекателност на общините в България, Научна конференция на РУ&СУ, 2016, с.с.63-67. http://conf.uni-ruse.bg/bg/docs/cp16/5.1/5.1-11.pdf* (*Accessed on 19.02.2017*).

Evgeni Petrov Stanimirov, Vladimir Sashov Zhechev, Maria Radoslavova Stanimirova. (2016) Strategic Readiness for CRM Process Management: the Case of Business Service Companies in Bulgaria // Sarajevo Journal of Social Sciences; Faculty of Business and Administration; International University of Sarajevo; ISJSS; ISSN 2303-7105, Vol 2, No 1 (2016)

Koen Jonkers. (2018) A Regional Innovation Impact Assessment Framework for universities. European Commission. JRC Discussion Paper Joint Research Centre, Brussels January 2018 URL: https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/regional-innovation-impact-assessment-framework-universities (Accessed on 29.08. 2018).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.404-1-EM-10

MANAGEMENT DECISIONS RELATED TO THE DEPRECIATION OF BUDGET ORGANIATIONS

Chief assistant Prof. Bozhana Stoycheva, PhD
Department of Management and business development,
University of Ruse "Angel Kanchev"
Phone: 082-888 - 715
E-mail: bstoycheva@uni-ruse.bg

Abstract: *The need for accrual of depreciation of non-financial assets in the state cultural institutes operating in the performing arts sector in Bulgaria has been introduced since the beginning of 2017. In this connection, the accounting policy of the Ministry of Culture has been changed as well.*

The requirements for the secondary budget spenders in the system of the Ministry of Culture were related to the need to develop and validate the depreciation policy and a summary plan at the level of the accounts of Section 2 - tangible and intangible assets. As a result, each cultural institute needed to make management decisions regarding its own non-financial fixed assets.

The report aims to present these managerial decisions and to synthesise a plan for accruing depreciation in cultural institutes operating in the performing arts sector..

Keywords: *management decisions, depreciation, non-financial assets performing arts, cultural institutes*

JEL Codes: *L31, M41*

REFERENCES

Bilbileva, E., (2014) Narachnik na budzhetniya schetovoditel, Ada Soft, Sofia. (***Оригинално заглавие:*** *Билбилева, Е.* (*2014*)*. Наръчник на бюджетния счетоводител, Ада Софт, София.*).

Dimitrov, M., & I. Andreev, (2015). Schetovodniyat analiz. Abagar. (***Оригинално заглавие:*** *Димитров, М. & Ил андреев, 2015, Счетоводният анализ, Абагар*).

Durina, D., (2008). Dalgotraini materialni aktivi, Nematerialni aktivi. ForCon, Sofia. **(*Оригинално заглавие:*** *Дурина, Д., 2008, Дълготрайни материални активи. Нематериални активи, ФорКон, София*).

Kotler, Ph. (2003). Marketing insights from A to Z: 80 concepts every menager needs to know, John Wiley & Sons, Inc, Hoboken, New Jersey.

Langley, S., & D. Conte. Theatre management: producing amd managing the performing arts. Hollywood: EntertainmentPro, 2007, available at: http://www.amazon.com/Theatre-Management-David-M-Conte/dp/0896762564#reader_0896762564 (Accessed 12.09.2018).

Musov, M., (2018). Management accounting, Publishing complex - UNWE, Sofia.

Tsvetanova, M., & Hadzhieva, P. (2010). Vzaimovrazka mezhdu schetovosnite smetki i paragrafi pri otchitane na stopanskite operacii v budzhetnite predpriyatiya, Inter Intelect, Sofia (***Оригинално заглавие:*** *Цветанова, М., & Хаджиева, П., 2010, Взаимовръзка между счетоводните сметки и параграфи при отчитане на стопанските операции в бюзжетните предприятия, Интер Интелект, София.*).

FRI-2G.404-1-EM-11

METHODOLOGICAL APPROACH FOR INTERNAL ASSESSMENT OF INFLUENTIAL FACTORS ON THE INNOVATION ACTIVITY OF AN INDUSTRIAL ENTERPRISE

Sen. Assist. Prof. Svilen Kunev, PhD
Department of Management and Business Development,
University of Ruse "Angel Kanchev", Bulgaria
Tel.: +35982 888 617
E-mail: snkunev@uni-ruse.bg

Sen. Assist. Prof. Irina Kostadinova, PhD
Department of Management and Business Development,
University of Ruse "Angel Kanchev", Bulgaria
Phone: +35982 888 617
E-mail: ikostainova@uni-ruse.bg

Galina Angelova, BSc. Industrial Management
Department of Management and Business Development,
University of Ruse "Angel Kanchev", Bulgaria
Phone: +35982 888 617
E-mail: galkata76@gmail.com

Abstract: *This report aims to present a methodological approach to study the impact of influencing factors on the innovation activity of an industrial enterprise by building a system of consecutive activities for internal impact assessment, conducted by analytical and managerial specialists of middle and top management level in the organization. The approach includes: systematizing a set of factors in two directions - internal-external and beneficial-deterrent; preparation of evaluation tools (questionnaire); selecting appropriate respondents; contacting respondents, interviewing and completing the forms; processing (averages, graphs), data analysis and recommendations. Based on the results obtained, we proceed to formulate recommendations for better reporting of factor influence. The applicability of the approach is to broaden the scope of the business unit for adequate measures to improve its innovation activity. The benefits of the practical adaptation of the methodological approach focus on enhancing the adequacy of management policies in the enterprise with regard to the definition and implementation of measures to reduce the impact of deterrent factors, on the one hand, as well as to improve the condition and the influence of the beneficial factors, on the other.*

Keywords: *Innovation activity, enterprise management, organization of production*

JEL Codes: *L230, O310, M100*

REFERENCES

Albers, A., Gladysz, B., Heitger, N., & Wilmsen, M. (2016). Categories of product innovations - a prospective categorization framework for innovation projects in early development phases based on empirical data. Procedia CIRP, 50, 135-140

Antonova, D., B. Stoycheva. (2018). Approved model of factors, influencing the management process in developing new products. IN: The 6th International Conference Innovation Management, Entrepreneurship and Sustainability (IMES 2018), Czech Republic, Vysoká škola ekonomická v Praze, Nakladatelství Oeconomica – Praha 2018 Nakladatelství Oeconomica, N, 2018, pp. 38-54, ISBN 978-80-245-2274-6.

Applied Research and Communications Fund. (2017). Innovation.bg. Bulgaria in the Global Value Chains 2017. Published by the Representation of the European Commission in Bulgaria and the Office for Publications of the European Union. ISBN: 978-92-79-76593-3. http://www.-arcfund.net/arcartShow.php?id=18100, accessed on 30.03.2018.

 Copyrights© http://conf.uni-ruse.bg

Geissdoerfer, M., Savaget, P., & Evans, S. (2017). The Cambridge business model innovation process. Procedia Manufacturing, 8, 262-269.

Kunev S., D. Antonova. (2014). Approbation of methodological approach for innovation activeness of small and medium-sized enterprises in a dynamic environment (following the example of machine-building sector in Ruse region,Bulgaria.// Annals of „Eftimie Murgu" University Reşiţa, Fascicle II. Economic Studies, 2014, No XXI, pp. 102-118, ISSN 2344 – 6315. (SJR rank: 1.65 /2014, Copernicus)

Luqmani A., Leach, M. & Jesson, D. (2017). Factors behind sustainable business innovation: The case of a global carpet manufacturing company. Environmental Innovation and Societal Transitions.24, 94 –105.

Mihaylova, L., Papazov, E., Kirova, M. (2014). Specificities of strategic controlling in innovative enterprises (after the example of the Bulgarian knitwear industry). IN: 21 st ISC "Smart and Efficient Economy: Preparation for the Future Innovative Economy" (Selected papers), Brno, Czech Republic (Web of Science), 2016, pp. 573-578, ISBN 9788021454132.

Stoycheva, B., D. Antonova. (2014). Improving Management Functions in Developing New Products in Medium-sized and Large Enterprises (a Comparative Study of Bulgarian and American Processing Industry). IN: LDIC 2014 Conference "Dynamics in Logistics", Editors: Kotzab Herbert, Pannek Jürgen, Thoben Klaus-Dieter, Berlin-Heidelberg, Germany, SPRINGER-Verlag, 2014, pp. 480-490, ISBN 2004-1345.

FRI-2G.404-1-EM-12

DECREASED MOTIVATION IN THE HEALTH SECTOR - REASONS, EFFECTS AND POSSIBLE SOLUTIONS

Svilena Ruskova, PhD
Faculty of Business and Management
"Angel Kanchev" University of Ruse
E-mail: sruskova@uni-ruse.bg

Antoaneta Yabanozova
Department of Business and Management Department, PhD student
"Angel Kanchev" University of Ruse
Tel.: +359896753245
E-mail: ayabanozova@uni-ruse.bg

Abstract: *The report considers some of the main reasons for lowering the motivation of human resources in the healthcare sector. These include: system financing, system organization, technology and personnel security, regulatory failure and in others. They in turn lead to the emergence of many negative influences, which have an impact on the effective functioning of the healthcare system in Bulgaria. As a result, the quality of healthcare provided by patients in Bulgaria is hampered. With regard to the formulated problems related to the HR motivation in health care in the final part of this report are proposed some possible aspects of their solution.*

Keywords: *Motivation, Management of human resources, Healthcare professionals, Health system*

JEL Codes: *M1, M12*

REFERENCES

Health 2020. A European policy framework and strategy for the 21st century (2013) (***Оригинално заглавие:*** Здраве 2020, Европейска политическа рамка и стратегия за 21-ви век, СЗО, 2013)

Mutafova E., M. Rohova, T. Kostadinova. National Profile of Migration of Bulgarian Health Professionals. Sp. Management and Sustainable Development, бр. 1 (43), 2012, стр. 15-26 (in English). ISSN 1311-9729).

National Health Strategy 2020, Ministry of Health (***Оригинално заглавие:*** Министерство на здравеопазването, Национална здравна стратегия 2020, 2015 год.)

Preamble to the Constitution of the International Health Organization, as adopted by the International Health Conference in New York, 19-22 June 1946; signed on 22 July 1946 by the representatives of 61 countries (WHO official records, No. 2, page 100) and entered into force on 7 April 1948 (***Оригинално заглавие:*** *Преамбюл към Конституцията на Международната здравна организация*)

Rohova, M., Human resources provision of the health system - national and international

regional aspect. Sp. Management and Sustainable Development, pp. 4 (31), 2011, pp. 93-99. ISSN 1311-4506.

Healthcare 2014 - state, problems, solutions, challenges, Bulgarian Industrial Association (***Оригинално заглавие:*** *Здравеопазване 2014 – състояние, проблеми, решения, предизвика-телства*).

URL: https://www.bia-bg.com/focus/view/21293/

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.404-1-EM-13

TRENDS AND THE MAIN ISSUES OF THE BULGARIAN TEXTILE INDUSTRY: THE ROLE OF INTERNAL BRANDING TO INCREASE THE ENGAGEMENT AND MOTIVATION OF THE HUMAN RESOUSES

PhD student Irena Milkova Kenarova-Pencheva, MSc
Department of "Management and Business Development"
University of Ruse "Angel Kanchev"
Phone: +359883417517
E-mail: ikenarova@uni-ruse.bg

Abstract: *The textile industry has a long history and traditions in Bulgaria. This branch of the light industry is one of the pillars of the Bulgarian economy. In 2017, it numbers about 100,000 people. In recent years, there has been an upward trend in foreign investments and increasing exports in this sector.*

However, the main challenge for the industry is the lack of staff, both at the contractor level and at the middle and the top management levels. Insufficient staff is a serious flaw that directly affects the productivity of the sector.

This report provides an overview of the textile industry from 2003 to 2018. The impact of Bulgaria's accession to the EU and the opportunities open to the sector are analyzed. In the material are presented the biggest investors in the branch, both foreign and Bulgarian producers. The advantages of textile production in Bulgaria are outlined compared to other countries as well as the barriers it faces.

A solution to the problem is therefore proposed. Internal Market Impact Tools are used to overcome the low commitment of the HR to the vision, goals and general strategy of the textile company. The concepts of branding, internal branding and their benefits for the behavior of the staff, as well as the overall performance of the organization, are considered.

Keywords: *textile industry, human resource, internal branding, employee engagement*

JEL Codes: M12, M31

REFERENCES

Aaker, D. (1996). Building strong brands. New York: New York: Free Press .

Ambler, T. and Barow, S. (1996). "The Employer Brand". Journal of Brand Management, 185 – 206 .

American Marketing Association. (n.d.). Retrieved from https://www.ama.org/resources/-Pages/Dictionary.aspx?dLetter=B.

Balmer, J. (1995). Corporate branding and connoisseurship. J Gen Manage , 24-46.

Boyd, G. and M.Sutherland. (2006). "Obtaining employee commitment to living the brand of the organisation". South African Journal of Business Management, 9-20.

deChernatony L, McEnally MR. (1992). The evolving nature of branding: consumer and managerial considerations. J Consum Mark Res , 2.

Giep Franzen, Sandra Moriarty. (2009). "The Science and Art of Branding". New York: M.E. Sharpe Inc.

Gordon, G. L., Calantone, R. J., di Benedetto, C. A. (1993). Brand equity in the business-to-business sector. Journal of Product and Brand Management, 4-16.

Heffner,T.S and Reutsch, J.R. (2001). "Organisational Commitment and a social Interaction :A Multiple Constituencies Approach". Journal of Vocational Behavior, 471-490.

Hutton, J. G. (1997). A study of brand equity in an organizational-buying context. Journal of Product and Brand Management, 428-439.

Iverson, R. D., Mcleod, C.S. And Erwin , P.J. (1996). "The role of employee commitment and trus in service relationships". Marketing Intelligence & Planning , 36-44.

James, D. (2000). "‘Don't forget staff in marketing plan". Marketing News, 10-12.

Kapferer, J.-N. (1995). Strategic brand management: new approaches to creating and evaluating brand equity: London: Kogan Page.

Keller, K. (1993). Conceptualizing, measuring, and managing customerbased brand equity. J Mark, 1-22.

Keller, K. L. (2012). Strategic Brand Management: Building, Measuring, and Managing Brand Equity. Prentice Hall.

King & Grace. (2008). Internal branding: Exploring the employees' perspective. Brand Management, 358–372 .

Kotler, P. (2002). Marketing management: Analysis, planning, and control. Englewood Cliffs, NJ: Prentice-Hall.

Machtiger, B. (2004). "Beware pitfalls that kill branding efforts". Marketing News, 21.

Mangold, W. G., Miles, S. J. (2007). The employee brand: Is yours an all-star? Business Horizons, 423-433.

Mitchell, C. (2000). "Selling the brand inside". Harvard Business Review, 99-105.

Mudambi, S. M., Doyle, P., Wong, V. (1997). An exploration of branding in industrial markets. Industrial Marketing Management, 433-446.

Pervaiz K. Ahmed and Mohammed, Rafiq. (2003). "Internal marketing issues and challenges". European Journal of Marketing, 1177-1186 .

Runkel, Ken and C. Brymer . (1997). The nature of brands. Brand valuation. London : Premier Books .

Saunders J., Watt F.A.W. (1979). Do brand names diferentiate identical industrial products? Industrial Marketing Management, 114-123.

Shipley, D., Howard, P. (1993). Brand-naming industrial products. Industrial Marketing Management, 59-66.

Spark, J. (2004). "Recognise your brand's true values". Executive Business Brief, 6-7.

http://www.nsi.bg/ (last visited 21.10.18)

https://www.sme.government.bg/uploads/2012/10/TEXTILE-Strategy.pdf (last visited 21. 10.2018)

http://sfb.bia-bg.com/index.php?srchbranchid=10&lang=bg (last visited 21.10.18)

https://www.bgtextiles.org/?cid=20 (last visited 21.10.18)

https://www.bgtextiles.org/?cid=20&NewsId=1870. Strategy for Clothing and Textiles 2020 (last visited 21.10.18)

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.404-1-EM-14

ANALYSIS OF RESULTS FROM SURVEY REPORT ON SOCIAL RESPONSIBILITY'S LEARNING NEEDS

Chief assistant Prof. Irina Kostadinova, PhD
Department of Management and business development,
University of Ruse "Angel Kanchev"
Phone: +359 885382300
E-mail: ikostadinova@uni-ruse.bg

Chief assistant Prof. Svilen Kunev, PhD
Department of Management and business development,
University of Ruse "Angel Kanchev"
Phone: 082-888 - 617
E-mail: snkunev@uni-ruse.bg

Abstract: *The social responsibility of compnies has become a hot topic during the last decade in Europe and Bulgaria as well. As a result, the need for specific education for students in that regard has become immenent and many Higher education institutaions have started their own researches in that field. The conducted study in the University of Ruse "Angel Kanchev" aimed to fill the void in that regard too.*

The main goal of the presented study was to analyze students' attitudes and perceptions, and to collect relevant learning needs with respect to Social Responsibility and to Responsible Educational Management (REM). The answers of the students have been treated confidentially with utmost importance. Participants in the study were students from Bulgaria. This report regards only the results received from 40-ty Bulgarian students.

The survey have been conducted in two phases, the first results were collected during March, the second during April 2017.

The questionnaires, which have been completed and submitted on-line by the participants during March and April, are totally 40-ty. The report aims to present students perception of their learning needs in regard of social education as wel as the new perspectives in front of REM.

Keywords: *Social Responsibility, Responsible Educational Management, undergraduate sustainability education*

JEL Codes: *M14, M10, A2*

REFERENCES

Corporate Social Responsibility Bulgaria, available at: https://csr.bg/ (Accessed 12.09. 2018).

Deer, Sh., & J. Zarestky (2016). Business Education for Corporate Social Responsibility and Social Justice,

Kotler, Ph. & N. Lee (2005). Corporate Social Responsibility, John Wiley & Sons, Inc, Hoboken, New Jersey.

HEInnovate guide related to the Business/External relationships for knowledge exchange to create value for education and society, https://heinnovate.eu/, (Accessed 14.08.2018).

Principles for Responsible Management Education (2016). http://www.unprme.org/-resource-docs/SIPToolkitFINALWeb.pdf, (Accessed 15.09.2018)

United Nations Guiding Principles on Business and Human Rights, available at: http://www.sa-intl.org/data/global/files/SAI-ICCO-UNGP-Handbook.pdf, (Accessed 1.09.2018).

Schuetze, C.F., (2013). Social Responsibility and M.B.A.'s. The International New York Times, October 21-st issue.

FRI-2G.404-1-EM-15

A CONCEPT FOR QUADRA-HELIX COLLABORATION FOR STIMULATING TRANSREGIONAL DEVELOPMENT

Saad Abdullah Alanssari, BSc. Business Management
Department of Management and Business Development,
University of Ruse "Angel Kanchev", Bulgaria
Phone: +35982 888 617
E-mail: s_alanssari@hotmail.com

Sen. Assist. Prof. Svilen Kunev, PhD
Department of Management and Business Development,
University of Ruse "Angel Kanchev", Bulgaria
Tel.: +35982 888 617
E-mail: snkunev@uni-ruse.bg

Abstract: *The paper represents the core characteritics of a concept for international cooperation, based on the interaction of stakeholders from different socio-economic fields – public institutions, business entities, non-government organisations, and specific groups from the society. The thematic scope is focused on stimulating the transregional develpment by elaboration of a plan for establishement of International center for education and development Bulgaria-Kuwait. It addresses the problem with the demographic situation in Bulgaria and EU– decrease in young population, shortage of well-qualified people, migration. This concept is possible to be implemented through a joint venture between the University of Ruse "Angel Kanchev" and Embassy of Kuwait in Bulgaria, with the support of the State of Kuwait, which is interested in investing abroad, eg. in EU countries. It could be perceived like an example of social entrepreneurship, because it can generate both profit and non-profit results. For example, the University and the Embassy may get some financial income from courses and consulting, but the major benefits are for the local people and the region – improved options for international operations, international internships, attracting of EU citizens to come to study and work in Ruse, incl. also Bulgarian citizens previously migrated abroad to come back in the home country. At the end, the broad impact is expected to be the positive influence on socio-economic development of the region.*

Keywords: *Economic Development, Human Resources, Regional Development*

JEL Codes: *F630, O150, O180*

REFERENCES

Antonova, D., D. Pavlov, S. Kunev. (2013). The Third Generation University - Marketing Orientation, Innovation and Global Goal Context and Assessment Criteria (Universitetŭt ot treto pokolenie - marketing orientatsiya, inovatsii i globalen kontekst na tselite i otsenŭchnite kriterii). In: Collection of Reports from XIV. PPC "Prerequisites and Opportunities for Industrial Growth in Bulgaria", Sofia, Ed. complex - UNWE, 2013, pp. 117-130, ISBN 978-954-644-494-3.

Antonova, D., Pavlov, D. (2010). Science, research, knowledge, environment. Which are the driving forces behind the development of the region? / (***Оригинално заглавие:*** *Наука, изследвания, знания, среда. Кои са движещите сили за развитие на регионите?.//*) Web Journal in Entrepreneurship and Innovation, 2010, 2, стр. 21-30, ISSN 1314-0175.

Bulgarian Association of People Management. (2017) Kakŭv e potentsialŭt na pazara za HR uslugi v Bŭlgariya? https://www.economy.bg/humancapital/view/28139

Ivanova V., M. Kirova. (2017). Evaluation of the Potential for Development of the Economic Cooperation in Euro-region Ruse-Giurgiu after the end of the Programming Period 2007-2013.// Review of International Comparative Management, 2017, No 5, pp. 502-514, ISSN 1582-3458.

Kirova, M., Nedyalkov, A., Pencheva, M., Yordanova, D. (2018) University as Prerequisite for Sustainable Regional Development in International Context. IN: Proceedings of the 18th International Scientific Conference Globalization and Its Socio-Economic Consequences,

 Copyrights© http://conf.uni-ruse.bg

University of Zilina, Slovak Republic, 10-11 October 2018, 2018

Pavlov, D. (2010). University Support to Technostarters' Business Models.// Serbian Journal in Management. University in Belgrade Technical Faculty in Bor, Serbia., 2010, No 5 (1), pp. 162-174, ISSN 1452-4864.

UNICEF. (2018). Education. © UNICEF Bulgaria/2013/Pirozzi https://www.unicef.bg/-obrazovanie#helpNowModal

UNESCO. (2018). Education and Literacy. Kuwait. http://uis.unesco.org/en/country/kw?-theme=education-and-literacy

FRI-2G.509-1-LCSIPC

FRI-2G.509-1-LCSIPC-01

BIBLICAL IDIOMS IN CONTEMPORARY DISCOURSE

Diana Stefanova
Department of Foreign Languages,
"Angel Kanchev" University of Ruse
Tel.: 082 888 532
E-mail: dstefanova@uni-ruse.bg

Abstract: *This paper examines the relation between appraisal instantiations realized through Biblical idioms in the Biblical text itself and their potential for expressing an attitude in their lexicalized meanings. It reports on some of the findings of a larger study on 375 Biblical idioms in English in which appraisal analysis is applied.Three types of findings are discussed related to three types of intertextual connections: between Biblical idioms and the source text, between the idioms and proverbs and between idioms and other works of art including literary works, works of visual arts and popular culture. The analysis shows that most of the idioms keep the potential of realizing appraisal derived from the Biblical context. Only a small number have undergone a change in meaning which is also associated with a change in their potential of realizing appraisal. In addition not all intertextual connections that have been examined strengthen the tie to the Biblical text. In a number of cases a particular usage of an idiom contributes different connotations to the lexicalized meaning which gain wide popularity. It is argued that awareness of the origin of Biblical idioms and the intertextual connections to later works of art play a major role but are not crucial for a felicitous speech act.*

Keywords: *Biblical idioms, appraisal analysis, intertextuality.*

JEL Codes: *I20*

REFERENCES

Balakova, D. et al. 2013. Nasledie Biblii vo frazeologii. Greiswald: Universitat Greifswald. (***Оригинално заглавие:*** *Балакова, Д., Ковачова, В., Мокиенко, В. Наследие Библии во фразеологии. Грайфсвальд: Universitat Greifswald*).

Crystal, D., 2010. Begat: The King James Bible and the English language. Oxford: Oxford University Press.

Kaldieva, S. 2013. Bulgarska frazeologiya. Sofia: Akademichno izdatelstvo Professor Marin Drinov. (***Оригинално заглавие:*** *Калдиева-Захариева, С. Българска фразеология. София: Академично издателство "Професор Марин Дринов"*).

Martin, J. & White, P. R., 2005. The Language of Evaluation: Appraisal in English. Houndmills: Palgrave Macmillan.

Mieder, W., 1998. A house divided: from biblical proverb to Lincoln and beyond. Burlington: University of Vermont.

Mieder, W., 2004. Proverbs: A handbook. Wesport, Connecticut/London: Greenwood Press.

Norrick, N., 1985. How proverbs mean: Semantic studies in English proverbs. Berlin New York Amsterdam : Mouton Publishers.

Norrick, N., 2007. Proverbs as set phrases. In: H. Burger, D. Dobrovol'skij, P. Kuhn & N. Norrick, eds. Phaseology: An international handbook of contemporary reserch. Berlin New York: Walter de Gruyter, pp. 381-394.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.509-1-LCSIPC-02

DIMENSIONS OF CULTURAL VARIABILITY AMONG LOCAL COMMUNITOES IN THE TOWN OF RUSE (1878-1920 YEARS)

Lilyana Slavianova
Department of Foreign Languages,
"Angel Kanchev" University of Ruse
Tel.: 082 888 532
E-mail: lslavianova@uni-ruse.bg

Rozalina Bozhilova-Kouncheva, PhD student
Department of European studies,
"Angel Kanchev" University of Ruse
Tel.: 082 888 532
E-mail: rbozhilova@uni-ruse.bg

Abstract: *The aim of this paper is to explore culture as a dynamic system affected by various factors. It looks at the political and environmental factors that influence the development of the town of Ruse at the beginning of the 20 the century. It also seeks to find out how the dynamics of the political situation in the Balkans and the extreme influence of the river Danube acted on the town and its population. The analysis is based on the exploration of cultural variability according to the views of Kluckhohn and Strodbeck, Edward Hall and Geert Hofstede and states the extent to which the ethnic groups living on the territory of the town of Ruse in the reviewed period illustrate them. Theoretical clarification of cultural variability and practical research of how it is addressed in the material and spiritual context has been made. The findings from this analysis illustrate that the ethnic communities in Ruse during that period combine the contemporary concepts of multiculturalism and the variance of values traced in a diachronic aspect. The research results also reveal that the local community of Ruse and its contacts with other cultural communities are based on established attitudes of tolerance and sustainability and continuity of values that can be given as a good example in a time of growing multiculturalism and globalization, both in Europe and worldwide. It can initiate a further discussion concerning notions as multiculturalism and cultural variability on the territory of the Danube region in the period of transition and democracy.*

Keywords: *culture; cultural variability; cultural diffusion, multiculturalism.*

JEL Codes: *I20*

REFERENCES

Mutafov, V. (1999) „Letopis na katedralniya hram „Sv.Troitsa" v gr. Ruse", „Dunav pres"AD – Ruse (1999) str. 11-16. (***Оригинално заглавие:*** *Мутафов, В. (1999) „Летопис на катедралния храм „Св.Троица" в гр. Русе", „Дунав прес"АД – Русе (1999) стр. 11-16.*)

Rot, Yu. Klaus Rot (2007). Studii po interkulturna komunikatsiya. Akademichno izdatelstvo „Prof.M.Drinov" Sofiya, 2007, str.23-25 (***Оригинално заглавие:*** *Рот, Ю. Клаус Рот* (*2007*). *Студии по интеркултурна комуникация. Академично издателство „Проф.М.Дринов" София, 2007, стр.23-25*)

Chen G.M & Starosta W.J. (2005) "Foundations of intercultural communication", "University Press of America"Inc (2005) 25-54.

Hofstede, G (1983). "National cultures in four dimensions".International Studies of Management and Organization, 13, 46-74.

Kluckhohn, C.,& Strodbeck, F.(1961). "Variations in value orientations". Evaston, IL. Row, Peterson.

FRI-1.405B-1-MIP

FRI-1.405B-1-MIP-01

NETWORK RISKS IN MARKOV DECISION PROCESSES

Acad. Vassil Sgurev, Prof. DSc
Inst. of Information and Communication Technologies,
Bulgarian Academy of Sciences,
E-mail: vsgurev@gmail.com

Assist. Prof. Stanislav Drangajov PhD
Department Intelligent Systems,
Inst. of Information and Communication Technologies - BAS,
Sofia, Bulgaria,
e-mail: sgrangajov@gmail.com

***Abstract**: A class of Markov Decision Making Processes (MDP) is proposed in this work, considering the network risks. Risk is considered as a product of two measures one of which is the probability for an adverse event at the process' passing through a given state. It is proved that in case of the same values of these probabilities a network flow of risks is received which has one-to-one mapping to the MDP. Relations between these two controllable processes are obtained.*

A case is investigated when the probabilities of adverse events are different for the different states and a method is proposed through which in this case the optimal solutions for the MDP with risks can be found. The results received are confirmed by appropriate numerical examples.

The possible areas of application of the MDP with risks being proposed are pointed out.

***Keywords:** Markov decision processes; risk; network flows; optimization.*

REFERENCES

Sgurev, V. (1993). Markov Flows, Sofia, Publishing House of Bulgarian Academy of Sciences, ISBN 954-430-103-8, https://search.rsl.ru/ru/record/01000556731 (in Russian).

Christofides, N. (1986). Graph theory: An Algorithmic Approach. London [etc.]: Academic Press.

Sgurev, V., & Drangajov, St. (2014). Intelligent Control of Flows with Risks on a Network, Proceedings of the 7th IEEE International Conference Intelligent Systems - IS'14, September 24–26 2014, Warsaw, Poland, ISSN 2194-5357, ISSN 2194-5365 (electronic), ISBN 978-3-319-11309-8, ISBN 978-3-319-11310-4 (eBook), DOI 10.1007/978-3-319-11310-4, Volume 2: Tools, Architectures, Systems, Applications, Springer International Publishing, Switzerland, P. Angelov et al. (eds.), Advances in Intelligent Systems and Computing vol. 323, , pp. 27-35.

Jensen, P. A., & Barnes, W. J. P. (1987). Network Flow Programming. Krieger Pub Co. ISBN-13:978-0894642104, ISBN-10:0894642103, https://www.amazon.com/Network-Flow-Programming-Paul-Jensen/dp/0894642103

 Copyrights© http://conf.uni-ruse.bg

FRI-1.405B-1-MIP-02

EXTREMAL PROBLEMS FOR THE CIRCLES INSCRIBED IN A GIVEN SEMICIRCLE OR IN A GIVEN SEGMENT

Assist. Prof. Todor Mitev PhD
Department of Mathematics,
"Angel Kanchev" University of Ruse
Ruse, Bulgaria,
E-mail: tmitev@uni-ruse.bg

Abstract:
Let the circles $K_1(O_1;r_1), K_2(O_2;r_2), \dots, K_n(O_n;r_n)$ *are inscribed consequently in a given circle* K.
In present paper we find $\max\sum_{k=1}^{n} r_k$, $\max\sum_{k=1}^{n} r_k^2$ *for* $n=3$ *and* $\max\sum_{k=1}^{n} r_k$, $\max\prod_{k=1}^{n} r_k$ *for* $n=4$.
We prove and analogical problems for the circles inscribed in a given segment. More exactly we find:
$\max\sum_{k=1}^{n} r_k$, $\max\sum_{k=1}^{n} r_k^2$, $\max\prod_{k=1}^{n} r_k$ *for* $n=2$ *and* $\max\sum_{k=1}^{n} r_k$, $\max\prod_{k=1}^{n} r_k$ *for* $n=3$.

REFERENCES

Mitev, T. P. (2000) Ekstremalni zadachi za kragove, vpisani v polukrag. sp. Matematika i informatika, br. 4, str. 49-55 (***Оригинално заглавие:*** *Митев, Т. П. (2000). ,,Екстремални задачи за кръгове, вписани в полукръг", сп. ,,Математика и информатика" бр.4, стр. 49-55*).

Shklyarskij, D. O., Chentsov, N. N, & Yaglom, I. M. (1970) Geometricheskie neravenstva i zadachi na maksimum i minimum. Nauka, Moskva (***Оригинално заглавие:*** *Шклярский, Д. О., Ченцов, Н. Н. , Яглом, И. М. (1970). ,,Геометрические неравенства и задачи на максимум и минимум" Наука, Москва.*)

Shklyarskij, D. O., Chentsov, N. N, & Yaglom, I. M. (1974) Geometricheskie otsenki i zadachi iz komblnatornoj geometrii. Nauka, Moskva (***Оригинално заглавие:*** *Шклярский, Д. О., Ченцов, Н. Н. , Яглом, И. М. (1974) ,,Геометрические оценки и задачи из комбинаторной геометрии". Наука, Москва.*)

Markushevich, A. I. (1975) Vozvratnie posledovatelnosti. Izdanie 2, Nauka, Moskva (***Оригинално заглавие:*** *Маркушевич, А. И. (1975). ,,Возвратные последовательности" Издание 2, Наука,Москва.*)

FRI-2G.305-1-ERI

FRI-2G.305-1-ERI-01

STUDENTS AND DIGITAL MATHEMATICS TEACHING

Assoc. Prof. Ion Mierlus-Mazilu, PhD
Department of Matematics and Computer Science
Faculty of Civil, Industrial and Agricultural Buildings
Technical University of Civil Engineering Bucharest, Romania
Phone: +40 212 421 208
E-mail: mmi@utcb.ro

Assoc. Prof. Emiliya Velikova, PhD
Department of Matematics
Faculty of Natural Scoences and Education
"Angel Kanchev" Univesity of Ruse
Phone: +359-885 635 874
E-mail: evelikova@uni-ruse.bg

Assist. Prof. Ralitsa Vasileva-Ivanova, PhD
Department of Matematics
Faculty of Natural Scoences and Education
"Angel Kanchev" Univesity of Ruse
Phone: +359-887 395 464
E-mail: rivanova@uni-ruse.bg

Abstract: *Mathematics plays one of the most important roles in developments of our modern and technology-centered society. Additionally, it lays the basis for technical studies, but is also needed e.g. in economics and life science. In fact, good mathematical skills are crucial for science and economy. Unfortunately, various studies have shown that mathematical competence in Europe has weakened in recent decades. The lack of mathematical proficiency is already causing problems in engineering mathematics' and other courses in European HEIs. In fact, this seems to be a global problem, and e.g. the learning outcomes of Eastern European countries have been weaker than expected, especially in mathematics, after they moved to the Western European model of education* (*e.g. SEFI 2002*)*. Compounding the issues, the resources allocated to teaching have been decreased so that there are fewer resources for teaching and the development of teaching.*

Additionally, in recent years the study groups have been increasing and becoming even more heterogeneous. This naturally causes problems for organization of mathematics' teaching as for example the entry level of competence in mathematics (*RulesMath project study this problem*) *varies greatly depending on the background studies. Under these circumstances, taking into account individual needs or organizing dynamic and creative activities becomes almost impossible during the classroom sessions. As a sum of many factors, it has been reported that the drop-out rates are high in the field of technology.*

In this paper, we will present the learning resources developed within the FutureMath project and how materials developed within this project are used by students in our universities and their positive influence in the process of teaching and learning mathematics.

Keywords: *Innovative Pedagogical Methods, Digitalization, Engineering Mathematics Education.*

REFERENCES

Drijvers, P. (2013). Digital technology in mathematics education: why it works (or doesn't). PNA, 8(1), 1-20.

Goos, M. (2010). Using technology to support effective mathematics teaching and learning: What counts? Research Conference 2010, pp. 67-70, URL: https://research.acer.edu.au/cgi/view-content.cgi?article=1067&context=research_conference , (Accessed on 21.09.2018).

Rahman, A. (2012). Improving the Teaching of Engineering Mathematics using Action Research, ELSEVIER Procedia - Social and Behavioral Sciences, Vol. 56, Pages 483-493

 Copyrights© http://conf.uni-ruse.bg

Zwart, D. et al. (2017). The effects of digital learning material on students' mathematics learning in vocational education, Professional Education & Training Research Article, 10 p., URL: https://www.tandfonline.com/doi/pdf/10.1080/2331186X.2017.1313581?needAccess=true (Accessed on 25.09.2018).

http://www.futuremath.eu/index.php/en/

FRI-2G.305-1-ERI-02

ABOUT THE STEM EDUCATION

Assoc. Prof. Emiliya Velikova, PhD
Department of Mathematics
Faculty of Natural Sciences and Education
"Angel Kanchev" Univesity of Ruse
Phone: +359 885 635 874
E-mail: evelikova@uni-ruse.bg

Assoc. Prof. Ion Mierlus-Mazilu, PhD
Department of Mathematics and Computer Science
Faculty of Civil, Industrial and Agricultural Buildings
Technical Univesity of Civil Engineering, Bucharest, Romania
Phone: +40 212 421 208
E-mail: mmi@utcb.ro

Pr. Assist. Prof. Ralitsa Vasileva-Ivanova, PhD
Department of Mathematics
Faculty of Natural Sciences and Education
"Angel Kanchev" Univesity of Ruse
Phone: +359 884109 719
E-mail: rivanova@uni-ruse.bg

Assist. Prof. Desislava Georgieva, PhD
Department of Algebra and Geometry
Faculty of Mathematics and Informatics
St. Cyril and St. Methodius University of Veliko Tarnovo, Bulgaria
Phone: +359 887 244 498
E-mail: dmgeorgieva2@gmail.com

Abstract: *The STEM acronym was introduced in 2001 by scientific administrators at the U.S. National Science Foundation. STEM is an interdisciplinary and applied approach that integrates science, technology, engineering, and mathematics into a cohesive learning paradigm based on real-world applications. STEM education refers to teaching and learning in the fields of these four subjects. It typically includes educational activities across all grade levels—from pre-school to post-doctorate—in both formal (e.g., classrooms) and informal (e.g.,afterschool programs) settings.*

The paper presents theoretical background about STEM: variations, definitions, characteristics and examples. Special attention is paid to the STEM-lessons and STEM-skills. Research about how some countries used STEM in education is included. Comparative analysis about students' results is presented and visualized.

Keywords: *STEM-Education, STEM-skills, hands-on activities.*

REFERENCES

Brzozowy et al. (2017). Making STEM education attractive for young people by presenting

key scientific challenges and their impact on our life and career perspectives, 11th International Technology, Education and Development Conference, Valencia, Spain. 6-8 March, 2017.

Carter, Vinson R. (2013). Defining Characteristics of an Integrated STEM Curriculum in K-12 Education" Theses and Dissertations. URL: http://scholarworks.uark.edu/etd/819

Elizabeth A. Ring et al. (2017). The Evolution of Teacher Conceptions of STEM Education Throughout an Intensive Professional Development Experience. Journal of Science Teacher Education. URL: https://www.sciencedaily.com/releases/2017/10/171004095119.htm (Accessed on 21.09.2018).

European Commission. (2017). Education and Training Monitor Country analysis, 315 p.

European Commission. (2017). Commission staff working document accompanying the document proposal for a Council recommendation on Key Competences for LifeLong Learning, Brussels, 17.1.2018, 104 p.

Maryland STEM: Innovation Today to Meet Tomorrow's Global Challenges. URL: http://mdk12.msde.maryland.gov/instruction/ccr_conferences/resources/E114/ES%20STEM%20101%20Participants%20Resources_1of2.v1.doc.pdf (Accessed on 21.09.2018).

Parker, C.E., Pillai, S., Roschelle, J. (2016). Next Generation STEM Learning for All: A report from the NSF supported forum. Waltham, MA: Education Development Center.

Stohlmann, M.; Moore, T.; and Roehrig, G. (2012). Considerations for Teaching Integrated STEM Education," Journal of Pre-College Engineering Education Research (J-PEER): Vol. 2: Iss. 1, Article 4. URL: https://doi.org/10.5703/1288284314653 (Accessed on 20.09.2018).

Ivanova, K., T. Chehlarova, E. Sednova. (2018). Matematikata v sveta okolo men – edno sabitie v ramkite na STEM DISCOVERY WEEK 2018, XI Natsionalna konferentsiya Obrazovanieto I izsledvaniyata v informacionnoto obshtestvo, pp.152-161 (***Оригинално заглавие:*** *Красимира Иванова, Тони Чехларова, Евгения Сендова 2018 "Математиката в света около мен" – едно събитие в рамките на "stem discovery week 2018" XI Национална конференция „Образованието и изследванията в информационното общество", с.152-161*).

Ministerstvo na obrazovanieto i naukata, Balgaria se prisaedini kam Evropeyskata STEM koalitsiya (***Оригинално заглавие:*** *Министерство на образованието и науката, България се присъедини към европейската STEM коалиция) https://mon.bg/bg/news/2991(Accessed on 01.10.2018*).

FRI-2G.305-1-ERI-03

PROBLEM SOLVING MODEL IN MATHEMATICS

Assist. Prof. Desislava Georgieva, PhD
Department of Algebra and Geometry
Faculty of Mathematics and Informatics
St. Cyril and St. Methodius University of Veliko Tarnovo, Bulgaria
Phone: +359 887 244 498
E-mail: d.georgieva@ts.uni-vt.bg

Assoc. Prof. Emiliya Velikova, PhD
Department of Mathematics
Faculty of Natural Sciences and Education
"Angel Kanchev" Univesity of Ruse
Phone: +359 885 635 874
E-mail: evelikova@uni-ruse.bg

Pr. Assist. Prof. Ralitsa Vasileva-Ivanova, PhD
Department of Mathematics
Faculty of Natural Sciences and Education
"Angel Kanchev" Univesity of Ruse
Phone: +359 884109 719
E-mail: rivanova@uni-ruse.bg

Abstract: *This paper is a theoretical review on the notion of problem and the main groups of mathematical problems' functions. Classifications of learning tasks and mathematical problems are outlined. An important condition for forming and developing problem solving skills is to be familiar with the problem solving activity, which requires three types of mental processes. This activity has two components: algorithmic and heuristic. The Polya's problem solving model has been extended and optimized. The theoretical summaries are made.*

Keywords: *mathematical problem, problem solving, problem solving activity, problem solving model*

REFERENCES

Desev, L. (1999) Rechnik po psikhologiya, Parvo izdanie. Sofia: Bulgarika. (***Оригинално заглавие:*** *Десев, Л., 1999. Речник по психология, Първо издание (Над 2000 термина). София: Булгарика*).

Frenkev, D. (2004). Za tekstovite zadachi v nachalnoto obuchenie po matematika. Plovdiv (***Оригинално заглавие:*** *Френкев, Д., 2004. За текстовите задачи в началното обучение по математика. Пловдив*).

Fridman, L. (1977). Logiko-psikhologicheskiy analiz shkolnix uchebnix zadach. Moskva: Pedagogika (***Оригинално заглавие:*** *Фридман, Л., 1977. Логико-психологический анализ школьных учебных задач. Москва: Педагогика*).

Fridman, L. (1983). Psikhologo-pedagogicheskiye osnovy obucheniya matematike v shkole. Uchitelyu matematiki o pedagogicheskoy psikhologii. Moskva: Prosveshcheniye (***Оригинално заглавие:*** *Фридман, Л., 1983. Психолого-педагогические основы обучения математике в школе. Учителю математики о педагогической психологии. Москва: Просвещение*).

Fridman, L., & Turetskiy, E. (1989). Kak nauchitsya reshat zadachi. Moskva: Prosveshcheniy. (***Оригинално заглавие:*** *Фридман, Л., Турецкий, Е., 1989. Как научиться решать задачи. Москва: Просвещение*).

Ganchev, I. (1971). Za matematicheskite zadachi. Sofia: Narodna prosveta. (***Оригинално заглавие:*** *Ганчев, И., 1971. За математическите задачи. София: Народна просвета*).

Ganchev, I., Kolyagin, Y., Kuchinov, I., Portev, L., & Sidorov, Y. (1996). Metodika na obuchenieto po matematika ot 8 do 10 klas. Sofia: Modul (***Оригинално заглавие:*** *Ганчев, И., Колягин, Ю., Кучинов, Й., Портев, Л., Сидоров, Ю., 1996. Методика на обучението по математика от 8 до 10 клас, част 1. София: Модул*).

Ganchev, I., Portev, L., Baev, B., & Todorova, P. (1997) Metodika na obuchenieto po matematika 5-7 klas. Plovdiv: Makros 2000 (***Оригинално заглавие:*** Ганчев, И., Портев, Л., Баев, Б., Тодорова, П., 1997. Методика на обучението по математика 5-7 клас. Пловдив: Макрос 2000)

Ganchev, I., Ninova, Y., & Nikova, V. (2002). Metodika na obuchenieto po matematika (obshta chast). Blagoevgrad: Universitetsko izdatelstvo „Neofit Rilski“ (***Оригинално заглавие:*** *Ганчев, И., Нинова, Ю., Никова, В., 2002. Методика на обучението по математика* (*обща част*). *Благоевград: Университетско издателство „Неофит Рилски“*).

Grozdev, S. (2007). For High Achievements in Mathematics the Bulgarian Experience (Theory and Practice). Sofia: RUTA.

Milushev V., & Frenkev D. (2005) Podkhod za formirane i razvivane motivatsionnata sfera na uchenika v obuchenieto po matematika. Matematika i matematichesko obrazovanie, zasedanie na 34 proletna konferentsiya na Sayuza na matematitsite v Bulgaria, 6th – 9th april, Borovets, Bulgaria, 352-357. (***Оригинално заглавие:*** *Милушев В., Френкев Д. 2005. Подход за формиране и развиване мотивационната сфера на ученика в обучението по математика. Математика и математическо образование, заседание на 34 пролетна конференция на Съюза на математиците в България, Боровец, 6 – 9 април, с. 352-357*)

Polya, G. (1945). How to Solve It: A New Aspect of Mathematical Method, Princeton Science Library.

Singer, F., & Voica, C. (2013). A problem-solving conceptual framework and its implications in designing problem-posing tasks. Educational Studies in Mathematics, 83, Dordrecht: Springer Science+Business Media, 9-26.

Slavov, K. (1978). Podgotovka na uchenitsite za samostoyatelna rabota po matematika. Sofia: Narodna prosveta (***Оригинално заглавие:*** *Славов, К., 1978. Подготовка на учениците за самостоятелна работа по математика. София: Народна просвета*).

Stolyar, A. (1976). Pedagogika na matematikata. Sofiya: Narodna prosveta (***Оригинално заглавие:*** *Столяр, А., 1976. Педагогика на математиката. София: Народна просвета*).

Tonov, I. (2012). Evristikata – nauka, izkustvo, zanayat. Sofia: Sofiski universitet „Sv. Kliment Okhridski“ (***Оригинално заглавие:*** *Тонов, И., 2012. Евристиката – наука, изкуство, занаят. Монографичен труд. София: Софийски университет „Св. Климент Охридски“*).

Vishin, Y. (1965). Metodika za reshavane na matematicheski zadachi. Sofiya: Narodna prosveta (***Оригинално заглавие:*** Вишин, Я., 1965. Методика за решаване на математически задачи. София: Народна просвета).

Zhelev, Zh. (2012). Kompyutarnite evristiki i vazmozhnostite im za izpolzvane v olimpiadnata matematika. Matematika i informatika, 4, 338-346 (***Оригинално заглавие:*** *Желев, Ж., 2012. Компютърните евристики и възможностите им за използване в олимпиадната математика. Математика и информатика, 4, с. 338-346*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.305-1-ERI-04

CREATIVE OUT-OF-CLASS WORK IN A TEAM - COMPLETE LEARNING: OPEN, ADAPTIVE, MOBILE

Assoc. Prof. Velislava Doneva, PhD
Department of Natural Sciences and Education,
University of Ruse "Angel Kanchev"
Tel.: 082/888 437
E-mail: doneva_v@uni-ruse.bg

Assist. Prof. Niya Peneva, PhD
Department of Natural Sciences and Education,
University of Ruse "Angel Kanchev"
Phone: 082/888 664
E-mail: ndoneva@uni-ruse.bg

Abstract: *The focus of this research is built on out-of-class group creative work with students gathering its particularity in the shapes it works. It is about an informal educational activity that builds up the lecture hours of Verbal Art - a compulsory discipline from the curriculum of Pre-school and Primary School Pedagogy with a foreign language. The highlights are the effectiveness of teamwork, the principles of work with art texts, the techniques for activating out-of-class activities, requirements to teachers and the students. In the end the real results are shown after the achieved goals and realized tasks - proof of openness, flexibility and adaptability of active complete learning/*

Keywords: *out –of-class group, creative work, students, verbal art, team work*

REFERENCES

Doneva 2016: Doneva, V. Slovestnoizpalnitelsko izkustvo. Pomagalo. Universitetski izdatelski centar kam RU, Ruse, 2016 (***Оригинално заглавие:*** *Донева В. Словесноизпълнителско изкуство. Помагало. Университетски издателски център към РУ, Русе, 2016*)

Makedonska 2018: Makedonska D. Efektivnost na ekipnata rabota v deckata gradina. Ponjatie za efektivnost na ekipnata rabota. In: Preduchilishtno I uchilishtno obrazovanie, mart-april 2018, S., 146-149 (***Оригинално заглавие:*** *Македонска Д. Ефективност на екипната работа в детската градина. Понятие за ефективност на екипната работа. В:Предучилищно и училищно образование, март-април 2018, С., с. 146-149*)

Petrov 2004: Petrov P. Grupovoto obuchenie v nachalnite klasove, Ruse, 2004 (***Оригинално заглавие:*** *Петров П. Груповото обучение в началните класове, Русе, 2004*)

FRI-2G.305-1-ERI-05

APPRENTICESHIP CLUSTER IN MECHANICAL ENGINEERING AND MECHATRONICS

Irena Rashkova, MA
Department for Language and Specialized Training,
Technical University of Gabrovo, Bulgaria
Tel.: +359 66 827 421
E-mail: irena.rashkova@yahoo.com

Tsvetelina Petrova, MA
Department for Language and Specialized Training,
Technical University of Gabrovo, Bulgaria
Tel.: +359 66 827 421
E-mail: petrova.tsvetelina@yahoo.com

Abstract: *The paper views the relationship between industry and higher engineering education, in particular within the region of Gabrovo, which shows a certain mismatch between the skills of engineers demanded by enterprises and the skills of young engineering graduates supplied by technical universities. To respond to that challenge, an alternative educational path at tertiary level is proposed by an international team of university lecturers, business people, local authorities, employers' organizations and social partner in the area of Mechanical Engineering and Mechatronics. A completely new form of higher education, known in most European countries as dual/cooperative studies, is considered – work-based learning with focus on apprenticeship. Actually the present paper presents in details one of its tools – an apprenticeship cluster in Mechanical Engineering and Mechatronics, which is intended to bridge the gap between the worlds of business and education so as to boost economic growth at regional level. .*

Keywords: *apprenticeship cluster, work-based learning, apprenticeship, skills mismatch, engineering graduates, academic and company mentors*

JEL Codes: *I25*

REFERENCES

Zaouini M. Nine challenges of Industry 4.0. IIoT World. URL: https://iiot-world.com/-connected-industry/nine-challenges-of-industry-4-0/ (Accessed on 20.09.2018).

Schröder C. (2016). The Challenges of Industry 4.0 for Small and Medium-sized Enterprises.

Friedrich-Ebert-Stiftung.

European Commission. (2012). Work-Based Learning in Europe. Practices and Policy Pointers.

URL:http://ec.europa.eu/dgs/education_culture/repository/education/policy/vocational-policy/doc/alliance/work-based-learning-in-europe_en.pdf . (Accessed on 20.09.2018).

Fiacco, F. et al. (2014). Intermediate Report on Work-Based Learning Needs and Gaps.

URL: http://www.erasmusplus.it/wp-content/uploads/2015/07/3_NetWBL_WBL_Needs-gaps.pdf (Accessed on 20.09.2018).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.305-1-ERI-06

USING OF THE MATHEMATICAL SOFTWARE GEOGEBRA FOR SOLVING THE STEREOMERICAL TASKS IN EDUCATION OF MATHEMATICS

Assoc. Prof. Ivanka Mincheva, PhD
Faculty of Mathematics and Informatics
Department of Algebra and Geometry,
St. Cyril and St. Methodius University of Veliko Tarnovo
Phone: 0878264082
E-mail: v.mincheva@yahoo.com

Zhorzheta Angelova, PhD student,
Faculty of Mathematics and Informatics,
Department of Algebra and Geometry,
St. Cyril and St. Methodius University of Veliko Tarnovo, Bulgaria
Tel.: 0899467971
E-mail: jorjeta87@abv.bg

Abstract: *The paper discusses some didactic ideas about solving mathematical problems on topic "Stereometry". A concrete problem on the figure pyramid from the school course of geometry is chosen. Its solution is given and analised. For better understanding and visualising the mathematical software GeoGebra is used. The problem is presented as it might be solved and assimilated in teaching secondary school mathematics. Considering the educational purposes we propose applying mathematical software for introduction and assimilation stereometric knowledge and problem solving in order to draw students' attention and keep them interested and impressed.*

Keywords: *GeoGebra, mathematical software, stereometry, spatial figures, mathematical problem*

REFERENCES

Burrus, C.S., & Parks, T.W. (1989). DFT/FFT and Convolution Algorithms. John Wiley&Sons, New York.

Cooper, A., & Wilson, A. (2002). Extending the relevance of TSA research for the UK: general equilibrium and spillover analysis. Paper presented at the 6th International Forum on Tourism Statistics, 25th - 27th September 2002, Budapest.

Papamichalis, P. (1994). DSP applications with the TMS320 family. Texas Instruments.

Polya, D. (1972). Kak se reshava zadacha. Sofia: Narodna prosveta. (***Оригинално заглавие:*** *Пойа. Д. 1972. Как се решава тази задача. София: Народна просвета*).

FRI-2G.305-1-ERI-07

ON THE SYNTHESIS IN THE COGNITION AND BUILDING OF INTERDISCIPLINARY IN THE TRAINING PROCESS

Assoc. Prof. Boryana Todorova, PhD
Department of Public Health and Social Work
Faculty of Public Health and Health Care
University of Ruse "Angel Kanchev"
Phone: +359 82 821 993
E-mail: btodorova@uni-ruse.bg,

Abstract: *The article discusses different aspects of synthesis as a tool for achieving cognition. The relationship between synthesis is sought as a method of formal logic as a method of theoretical cognition, and also as a component in the concept of synthetic a priori of Kant. The possibility of synthesis of the scientific fields based on the object of study and the construction of the common scientific methods of knowledge are under consideration. An idea is suggested to develop knowledge as a form, content and meaning, which also features the cognitive operations characteristic of each of these orientations. In this aspect, the idea of interdisciplinarity is also sought, its application in the process of training.*

Keywords: *synthesis of knowledge, common knowledge methods, cognitive operations, concept as form, content and meaning. interdisciplinary relations.*

JEL Codes: *I20, I21*

REFERENCES

Audi, R. (2009). Filosofski rechnik. Izdatelstvo „Trud“, Sofia. (***Оригинално заглавие:*** *Ауди, Р. 2009. Философски речник. Издателство „Труд“, София*)

Bachvarov, M., M. Draganov, St. Stoev, (pod red.), (1978), Filosofski rechnik, Partizdat, Sofia (***Оригинално заглавие:*** Бъчваров, М., М. Драганов, Ст. Стоев, (под ред.), 1978, Философски речник, Партиздат, София)

Berdyaev, N., (1994), Smisalat na istoriyata, Izd. kashta „Hristo Botev“, Sofia (***Оригинално заглавие:*** *Бердяев, Н., 1994, Смисълът на историята, Изд. къща „Христо Ботев“, София*)

Doykov, Y., (2015), Za poznanieto, opita i praktikata. Kantianskoto obobshtenie v idealizma. http://www.europartners2007.org/ (***Оригинално заглавие:*** *Дойков, Й., 2015, За познанието, опита и практиката. Кантианското обобщение в идеализма. http://www.europartners2007.org/*)

Fotev, G., (2002), Istoria na sotsiologiyata, tom II, Knigoizdatelska kashta „Trud“, Sofia (***Оригинално заглавие:*** *Фотев, Г., 2002, История на социологията, том II, Книгоиздателска къща „Труд“, София*)

Gerdzhikov, S., (2000), Nauchnoto obyasnenie na sveta, Univ. izd. „Sv. Kliment Ohridski“, Sofia (***Оригинално заглавие:*** *Герджиков, С., 2000, Научното обяснение на света, Унив. изд. „Св. Климент Охридски“, София*)

Hegel, G., (1998), Entsiklopedia na filosofskite nauki, t. III, Filosofia na duha, Izd. „LIK“, Sofia (***Оригинално заглавие:*** *Хегел, Г., 1998, Енциклопедия на философските науки, т. III, Философия на духа, Изд. „ЛИК“, София*)

Kant, I., (1992), Kritika na chistia razum, Izd. na BAN, Sofia (***Оригинално заглавие:*** *Кант, И., 1992, Критика на чистия разум, Изд. на БАН, София*)

Karageorgieva, A., (2013), Uvod v savremennata teoria na poznanieto, Izd. „Proektoria“ (***Оригинално заглавие:*** *Карагеоргиева, А., 2013, Увод в съвременната теория на познанието, Изд. „Проектория“*)

Kolarov, B., (2003), Zalezat na duhovnia chovek, Izd. „Pensoft“ (***Оригинално заглавие:***

 Copyrights© http://conf.uni-ruse.bg

Коларов, Б., 2003, Залезът на духовния човек, Изд. „Пенсофт“)

Levi, L., (2006), Kognitivna psihologia, Izd. „Paradigma“ (***Оригинално заглавие:*** *Леви, Л., 2006, Когнитивна психология, Изд. „Парадигма“*).

Livraga, H. A., (2018), Vselenata kato otgovor, https://akropol.bg/vselenata-kato-otgovor-jal/ (***Оригинално заглавие:*** *Ливрага, Х. А., 2018, Вселената като отговор.*)

Manifest za edna postmaterialistichna nauka, (2018), https://akropol.bg/manifest-za-edna-posmaterialistichna-nauka/ (***Оригинално заглавие:*** *Манифест за една постматериалистична наука, 2018*)

Strigachev, A., (1997), Printsipi na naukata, UI „Sv. Kliment Ohridski”, Sofia (***Оригинално заглавие:*** *Стригачев, А., 1997, Принципи на науката, УИ „Св. Климент Охридски”, София*)

Todorova, B., (2013), Metodicheska sistema za poznanie i tvorchestvo v obuchenieto po estestveni nauki, avtoreferat, Izd. na Rusenski universitet „Angel Kanchev“ (***Оригинално заглавие:*** *Тодорова, Б., 2013, Методическа система за познание и творчество в обучението по естествени науки, автореферат, Изд. на Русенски университет „Ангел Кънчев“*)

Todorova, B. (2016). Otnosno izuchavaneto na svetlinata i neynoto znachenie za globalnoto choveshko poznanie.// Godishno nauchno-metodichesko spisanie „Obrazovanie i tehnologii", 2016, broy 7, str. 165-169. (***Оригинално заглавие:*** *Тодорова, Б., 2016. Относно изучаването на светлината и нейното значение за глобалното човешко познание.// Годишно научно-методическо списание „Образование и технологии“, 2016, брой 7, стр. 165-169*)

Uspenski, P., (1998), Osaznavane. Tarsene na istinata., Izd. „Kralitsa Mab“, Sofia (***Оригинално заглавие:*** *Успенски, П., 1998, Осъзнаване. Търсене на истината., Изд. „Кралица Маб“, София*)

FRI-2G.305-1-ERI-08

PRACTICAL ACTIVITIES IN THE VTH GRADE MATHEMATICS EDUCATION

Assoc. Prof. Antoaneta Mihova, PhD
Faculty of Natural Sciences and Education,
"Angel Kanchev" Univesity of Ruse
Tel. 082-888-727
E-mail: amihova@uni-ruse.bg

Abstract: *The paper presents comparative analysis between the old and the new version of mathematics curriculum and textbooks for 5th grade. The new version included some practical activities, which help to form and develop mathematical and digital competences of students. The purpose was to research the differences and to underline the advantages of the practical activities, included in the new curriculum. Some mathematical problems for 5th grades students, are presented.*

Keywords: *Mathematics Education, Practical activities, Competence.*

REFERENCES

http://www.strategy.bg/StrategicDocuments/View.aspx?Id=880.

http://www.ckoko.bg/page.php?c=11&d=22&page=3.

Paskaleva, Z., G. Paskalev, M. Alashka. (2011). Uchebnik po matematika za 5 klas, Sofia: Izdatelstvo "Arhimed 2000" (***Оригинално заглавие:*** *Учебник по математика за 5 клас, София: Издателство „ Архимед 2000"*), ISBN: 978-954-779-126-8.

Racheva, D., I. Kostov, V. Velkova, V. Stoyanova, N. Norman, K. Peit. (2016). Matematika za 5 klas, Varna: Izdatelstvo "San Pro" (***Оригинално заглавие:*** *Математика за 5 клас, Варна: Издателство „. Сан Про"*), ISBN: 978-619-7073-09-6.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.405-1-PP

FRI-2G.405-1-PP-01

ON THE SUBJECT OF EDUCATIONAL PSYCHOLOGY

Prof. Stoyko Vanchev Ivanov PhD
Department of Social, Organizational, Clinical and Educational Psychology
Sofia University "St. Kliment Ohridski"
E-mail: stoyko.v.ivanov@gmail.com

Abstract: *The purpose of this report is to analyze the subject of educational psychology as an independent science. This objective is relevant in defining its subject matter because due to its integral nature there are different theoretical approaches and factual uncertainties. Additionally these all lead to contradictory views on the matter. Out of these it is often difficult to define what is the subject of educational psychology, what are its main problems and tasks, what are the stages it is going through, what are the theoretical approaches to learning and teaching, what scientists and from which country contribute the most to the formation of psychological-pedagogical theory and practice. This statement is supported by my analysis of relevant paragraphs from pedagogical teaching materials printed in Bulgarian in the last quarter of a century.*

Keywords: *Subject, Science, Educational psychology.*

REFERENCES

Desev, L. (1996) Pedagogicheska psihologiya. Sofiya. (***Оригинално заглавие:*** *Десев, Л. (1996) Педагогическа психология. София.*)

Desev, L. (2010) Rechnik po psihologiya. Sofiya. (***Оригинално заглавие:*** *Десев, Л. (2010) Речник по психология. София.*)

Krumova A., (2017) Psihologiya na obrazovanieto. Sofiya. (***Оригинално заглавие:*** *Крумова А., (2017) Психология на образованието. София*).

Linkov, A. (2014) Psihopedagogika ili pedagogika v/s pedagogicheska psihologiya. Plovdiv. (***Оригинално заглавие:*** *Линков, А. (2014) Психопедагогика или педагогика v/s педагогическа психология. Пловдив*).

Milkova, R., B. Petrova, M. Ivanov, S. Ivanov (1993) Obshta, vazrastova i

pedagogicheska psihologiya. Shumen. (***Оригинално заглавие:*** *Милкова, Р., Б. Петрова, М. Иванов, С. Иванов (1993) Обща, възрастова и педагогическа психология. Шумен*).

Nikov, A. (1994) Psihologiya na obrazovatelniya protses. Sofiya. (***Оригинално заглавие:*** *Ников, А. (1994) Психология на образователния процес. София*).

Nikolov, P., L. Krastev, N. Aleksandrova (1992) Pedagogicheska psihologiya. Sofiya. (***Оригинално заглавие:*** *Николов, П., Л. Кръстев, Н. Александрова (1992) Педагогическа психология. София*).

Slavin, R. (2004) Pedagogicheska psihologiya. Sofiya. (***Оригинално заглавие:*** *Славин, Р. (2004) Педагогическа психология. София*).

Stoykov, I. (1995) Pedagogicheska psihologiya. Veliko Tarnovo. (***Оригинално заглавие:*** *Стойков, И. (1995) Педагогическа психология. Велико Търново*).

Starnbarg R., U. Uylyams (2014) Pedagogicheska psihologiya. Sofiya. (***Оригинално заглавие:*** *Стърнбърг Р., У. Уйлямс (2014) Педагогическа психология. София*).

Yankulova, Y. (2016) Pedagogicheska psihologiya. Sofiya. (***Оригинално заглавие:*** *Янкулова, Й. (2016) Педагогическа психология. София*).

FRI-2G.405-1-PP-02

INDIVIDUAL PSYCHOLOGICAL CHARACTERISTICS AND THE CINEMA PREFERENCES OF THE MODERN VIEWER

Assoc. Prof. Nelly Koleva, Doctor of Psychological Sciences
Department of Social Sciences
"Assen Zlatarov" Univesity
E-mail: koleva_nelly@abv.bg

Abstract: *There is an opinion that media influence the formation of human preferences and define the behavior of the person. The call to one or another cinema genre may trigger regulatory factors such as striving to get rid of bad mood, or testing strong negative emotions.*

In the course of the research, we used the methodologies: original "Cinema-preference" methodology and R. Ketel's eight-factor model of personality traits. The selection of movies is based on their basic characteristics, which form the typology of visual preferences for the young audience. A factor structure of cinema preferences has been developed in order to demonstrate a certain attractiveness of the respondents for the selection of films.

In order to determine the relationship between the cinema-viewer's preferences and their personality traits, a Pirson's coefficient was calculated and a correlation analysis of the significance of the genre factors was made.

In conclusion, a structural scheme of cinema-preference is made according to the personality traits of modern youth.

Keywords: *Factor structure of cinema genres; eight-factor analysis of the personality*

REFERENCES

Воскресенская Н.Г., (2015), Социально-психологическая характеристика любителей определенных кино-жанров., Вопросы психологии. 2015. № 2. С. 78—87.

Кубрак Т.А., Гребенщикова Т.А., Павлова Н.Д., (2017), Психологический портрет современного кинозрителя: структура и связи кинопредпочтений, Экспериментальная психология. 2017. Т. 10. №. 4. С. 5-19. doi:10.

Латынов В.В., (2013), Психология коммуникативного воздействия. М.: Изд-во „Институт психологии РАН“, 2013.

Buss D.M., (1987), Selection, evocation, and manipulation., Journal of Personality and Social Psychology. 1987. Vol. 53. P. 1214—1221.

Korbut K.P., (2017), Psikhoanaliz o kino i kino o psikhoanalize [Elektronnyi resurs] [Psychoanalysis of films and films about psychoanalysis]. URL: http://biblioteka.teatr-obraz.ru/node/6547 (Accessed: 11.02.2017).

Krupnik E.P., (1999), Psikhologicheskoe vozdeistvie iskusstva [The psychological impact of art]. Moscow: Institut psikhologii RAN, 1999.

Mares M.L., Oliver M.B., Cantor J., (2008), Age differences in adults' emotional motivations for exposure to films. Media Psychology, 2008, vol. 11, pp. 488—511.

Oliver M.B., (2008), Tender affective states as predictors of entertainment preference. Journal of Communication, 2008, vol. 58, pp. 40—61.

Sobkin V.S., Skobel'tsina K.N., (2014), Predstavleniya roditelei o mul'tiplikatsionnykh predpochteniyakh detei-doshkol'nikov [Representations of parents about the multiplication preferences of preschool children]. Kul'turno-istoricheskaya psikhologiya [Cultural-historical psychology], 2014, vol. 10, no. 4. pp. 37-46.

Rubin A.M., Windahl S., (1986), The uses and dependency model of mass communication., Critical Studies in Mass Communication. 1986. Vol. 3. P. 184—199.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.405-1-PP-03

NATURE AND SPECIFICITIES OF CHILD DEVELOPMENT IN THE CONTEXT OF PEDOLOGY

Petya Cheshmedzhieva, PhD
Center for Psychological Services and Development "Psycomfort"
"Angel Kanchev" Univesity of Ruse – A part-time lecturer
Phone: +359887923413
E-mail: petia.cheshmedzhieva@gmail.com

Abstract: *The paper aims at presenting the nature and specificities of child development in the context of pedology. It is achieved via the presentation of problems from specific cases in the author's practice. They are analyzed in a complex way based on the pedological approach. Certain issues are discussed, as related to: 1. Driving forces of development. 2 Methods, activities and principles of organizing them in support of child development. 3. The interrelation between the children's mental development and their schooling, education and counseling. Specific recommendations are made on the basis of the outcomes.*

Keywords: *Child development, Pedology, Developmental psychology, Educational psychology.*

REFERENCES

Beldedov, E. (1936) Metodi za izmervane telesnoto i dushevnoto razvitie na deteto i yunoshata. Rakovodstvo za uchiteli i roditeli. Sofiya. (***Оригинално заглавие:*** *Белдедов, Е.* (*1936*) *Методи за измерване телесното и душевното развитие на детето и юношата. Ръководство за учители и родители. София.*)

Fominova, A. N., Shabanova, T. L. (2013) Pedagogicheskaya psihologiya. Uchebnoe posobie. 2-oe izdanie, pererabotonnoe i dopolnennoe. Moskva. (***Оригинално заглавие:*** *Фоминова, А. Н., Шабанова, Т. Л.* (*2013*) *Педагогическая психология. Учебное пособие. 2-ое издание, переработонное и дополненное. Москва.*) http://elibrary.bsu.az/books_163/N_107.pdf

Kachopo, Dzh. T., Frebar, L. A. (2015) Otkrivane na psihologiyata. Sofiya. (***Оригинално заглавие:*** *Качопо, Дж. Т., Фребър, Л. А. (2015) Откриване на психологията. София*).

Marinov, A. (2002) Detski risunki i moderno izkustvo. Lege Artis. (***Оригинално заглавие:*** *Маринов, А. (2002) Детски рисунки и модерно изкуство. Леге Артис*).

Tral, T., Prinstayn, M. Dzh. (2016) Klinichna psihologiya. Osmo izdanie. Iztok-Zapad. Sofiya. (***Оригинално заглавие:*** *Трол, Т., Принстайн, М. Дж. (2016) Клинична психология. Осмо издание. Изток-Запад. София*).

FRI-2G.405-1-PP-04

LOGOPEDICAL PREVENTION AND DIAGNOSTICS OF COMMUNICABLE DISORDERS IN CHILDREN IN PRE-SCHOOL AND PRIMARY SCHOOL EDUCATION

Assoc. Prof. Valentina Vasileva, PhD
Department of Natural Sciences and Education,
"Angel Kanchev" Univesity of Ruse
Phone: 082/888-268
E-mail: vvasileva@uni-ruse.bg

Assoc. Prof. Desislava Stoyanova, PhD
Department of Natural Sciences and Education,
"Angel Kanchev" Univesity of Ruse
Phone: 082/888-268
E-mail: dstoyanova@uni-ruse.bg

Abstract: *Specific language disorders are one of the most widespread childhood disorders. They correlate with the development of basic psychic processes, communicative skills, with subsequent learning and learning problems, with the features of emotional and behavioral functioning. Their early diagnosis and intervention are extremely important for the later personality and social functioning of adolescence and maturity.*

The paper reviews existing methods of special work of the speech therapist for the prevention and correction of speech pathologies in children. The purpose was to research the efficiency of best practices and algorithms for prevention and removal of speech disorders of different types. Special attention was paid to the presentation of effective logopedic approach and the legal basis on which it is implemented.

Theoretical research and the development of tools for the early discovery of linguistic and speech pathologies are the subject of a project INTERACTIVE TOOLS FOR TEACHERS AND CHILDREN AT INITIAL EDUCATION. This project (2017-1-BG01-Ka201-036295) has been funded with support from the European Commission (Erasmus+ Programme).

Keywords: *Speech pathologies, Early diagnosis and intervention , Efficiency .*

REFERENCES

Georgieva, A. (1996), Za terminologiyata v logopediyata: I. Bazovi kategorii, V:sp."Spetsialna pedagogika", SU „Sv. Kl. Ohridski", Sofia, septemvri, (***Оригинално заглавие:*** *Георгиева, А. 1996, За терминологията в логопедията: I. Базови категории, В:сп."Специална педагогика", София, септември, Издателство: СУ „Св. Кл. Охридски"*)

Georgieva, A. (1996), Za terminologiyata v logopediyata: II.Sporni termini ili neyasni kontsepti?, V: sp. "Spetsialna pedagogika", SU „Sv. Kl. Ohridski", Sofia,dekemvri (***Оригинално заглавие:*** *Георгиева, А. 1996, За терминологията в логопедията: II.Спорни термини или неясни концепти?, В: сп. "Специална педагогика", София, декември, Издателство: СУ „Св. Кл. Охридски"*)

Georgieva, A. (1996), Teoretichni modeli na ezikovite narushenia, V: sp."Spetsialna pedagogika", SU „Sv. Kl. Ohridski", Sofia, yuni (***Оригинално заглавие:*** *Георгиева, А. 1996., Теоретични модели на езиковите нарушения, В: сп. "Специална педагогика", София, юни, Издателство: СУ „Св. Кл. Охридски"*)

Karagyozov,I. (1998). Vavedenie v spetsialnata pedagogika, Faber, Veliko Tarnovo (***Оригинално заглавие:*** Карагьозов, И., 1998. Въведение в специалната педагогика. Велико Търново: Издателство „Фабер".)

Karagyozov,I. , A. Garnacheva (1996). Special pedagogy, Abagar, Veliko Tarnovo (***Оригинално заглавие:*** Карагьозов, И., А. Гърбачева 1996. Специална педагогика. Велико

 Copyrights© http://conf.uni-ruse.bg

Търново: Издателство „Абагар”.)

Leonard, L. (2000). Children with Specific Language Impairment. Cambridge (Mass.), MIT Press.

LAW on pre-school and school education Prom., SG, no. 79 of 13.10.2015, in force since 1.08.2016, amend. and so on, no. 98 of 9.12.2016, in force as of 1.01.2017, amend. 105 of 30.12.2016 in force from 01.01.2017, no. 58 of 18.07.2017, in force since 18.07.2017 (***Оригинално заглавие:*** *Закон за предучилищно и училищно образование.2016. В сила от 01.08.2016 г., Обн. ДВ. бр.79 от 13 Октомври 2015г., изм. и доп. ДВ. бр.98 от 9 Декември 2016г., изм. ДВ. бр.105 от 30 Декември 2016г., изм. ДВ. бр.58 от 18 Юли 2017г., изм. и доп. ДВ. бр.99 от 12 Декември 2017г., изм. ДВ. бр.24 от 16 Март 2018г.. София: URL: https://www.mon.bg/upload/12190/zkn_PUObr_180717.pdf*)

FRI-2G.405-1-PP-05

INTERDISCIPLINARITY IN THE STUDY OF THE *AIR* CONCEPT IN THE CONTEXT OF THE UNITED COGNITION

Assoc. Prof. Boryana Todorova, PhD
Department of Public Health and Social Work
Faculty of Public Health and Health Care
University of Ruse "Angel Kanchev"
Phone: +359 82 821 993
E-mail: btodorova@uni-ruse.bg,

Zlatina Angelova
ET “Mirdob”, Burgas
Phone: +359 896 889 848
E-mail: zlatina_angelova@abv.bg

Abstract: *In the context of the united cognition, the studied concept is dealt with on three levels such as form, content and meaning. It turns out that the different levels of clarification of the concept refer to knowledge from different scientific fields. The notion as form is studied by some natural sciences; content - from life sciences and other applied sciences, but as meaning - mostly from humanities. The offered approach is applied to rationalize and structure the content of study revealing the concept of "air" in various subjects. Thus, the paper outlines the possibilities for building up interdisciplinary relations of the topic. The approach helps build mental relations, it discloses associations, and helps understand analogies among knowledge elements from different fields, and binds the diverse knowledge of learners in united cognition.*

Keywords: *united cognition, interdisciplinary relations, secondary school, concept as form, content and meaning.*

JEL Codes:

REFERENCES

Audi, R. (2009). Filosofski rechnik. Izdatelstvo Trud, Sofia. (***Оригинално заглавие:*** *Ауди, Р. 2009. Философски речник. Издателство Труд, София*)

Bezovska, A. (2014). „Vetre le, nenaveyniko…” – folklornite obrazi na vyatara http://bnr.bg/radiobulgaria/post/100429431/vetre-le-nenaveiniko-folklornite-obrazi-na-vatara (***Оригинално заглавие:*** *Безовска, А. 2014. „Ветре ле, ненавейнико…” – фолклорните образи на вятъра*)

Georgieva, B. (2015). Frazeologizmi s oporni dumi za ‘vreme’ (kato atmosferno sastoyanie) v balgarski i v angliyski ezik – strukturen analiz, Avtoreferat, YuZU „Neofit Rilski“, Blagoevgrad. (***Оригинално заглавие:*** *Георгиева, Б. 2015. Фразеологизми с опорни думи за ‘време’* (*като атмосферно състояние*) *в български и в английски език – структурен анализ, Автореферат, ЮЗУ „Неофит Рилски“, Благоевград.*)

Haynts, A., G. Raynhard, (2000). Himia i okolna sreda, Univ. izd. "Sv. Kliment Ohridski", Sofia. (***Оригинално заглавие:*** *Хайнц, А., Г. Райнхард, 2000. Химия и околна среда, Унив. изд. "Св. Климент Охридски", София*).

Ilyustrovana entsiklopedia: Nauka i tehnologii, (2003). Izd. „Hermes“(***Оригинално заглавие:*** *Илюстрована енциклопедия: Наука и технологии, 2003, Изд. „Хермес“*)

Oksfordski meditsinski entsiklopedichen rechnik, (1995) Izd. „Petar Beron“, Sofia. (***Оригинално заглавие:*** *Оксфордски медицински енциклопедичен речник, 1995 Изд. „Петър Берон“, София*).

Shadrin, A. (2009). Koleloto na zhivota. Pateshestvia otvad predela, Izdatelstvo Feniks Dizayn, Sofia. (***Оригинално заглавие:*** *Шадрин, А. 2009. Колелото на живота. Пътешествия отвъд предела, Издателство Феникс Дизайн, София*).

Simeonova, G. (2013). Ot mitologia kam istoria: transformatsia na obrazi (zmey, ispolin, ovlasten chovek) ili zakonomerna smyana na probladavashtata antropomorfna forma, Venets: The Belogradchik Journal for Local History, Cultural Heritage and Folk Studies, Vol. 4, Number 1, 2013 http://www.venets.org/getfile.php?id=142 (***Оригинално заглавие:*** *Симеонова, Г. 2013. От митология към история: трансформация на образи* (*змей, исполин, овластен човек*) *или закономерна смяна на пробладаващата антропоморфна форма, Venets: The Belogradchik Journal for Local History, Cultural Heritage and Folk Studies, Vol. 4, Number 1, 2013*)

Stoyanova, N. (2017). Pogled otgore. Zhanrat na aeropisa v balgarskata literatura, Mezhdunarodna nauchna konferentsia na Fakulteta po slavyanski filologii „Nadmoshtie i prisposobyavane“, 2017, SK „Sv. Kl. Ohridski”. (***Оригинално заглавие:*** *Стоянова, Н. 2017. Поглед отгоре. Жанрът на аерописа в българската литература, МНК на Факултета по славянски филологии „Надмощие и приспособяване“, 2017, СУ „Св. Климент Охридски”*)

Todorova, B. (2016). Otnosno izuchavaneto na svetlinata i neynoto znachenie za globalnoto choveshko poznanie.// Godishno nauchno-metodichesko spisanie „Obrazovanie i tehnologii", 2016, broy 7, str. 165-169. (***Оригинално заглавие:*** *Тодорова, Б., 2016. Относно изучаването на светлината и нейното значение за глобалното човешко познание.// Годишно научно-методическо списание „Образование и технологии“, 2016, брой 7, стр. 165-169*)

Todorova, B. I., Zl. D. Angelova. (2018). „Oganyat" kato ponyatie v konteksta na edinnoto poznanie.// Godishno nauchno-metodichesko spisanie „Obrazovanie i tehnologii", 2018, broy 9, (***Оригинално заглавие:*** *Тодорова, Б. И., Зл. Д. Ангелова. 2018. „Огънят" като понятие в контекста на единното познание.// Годишно научно-методическо списание „Образование и технологии", 2018, брой 9.*)

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.405-1-PP-06

TEACHER VIEWS ABOUT ESTABLISHMENT AND FUNCTIONALITY OF THE SYSTEM OF PROFESSIONAL DEVELOPMENT OF TEACHERS IN REPUBLIC OF MACEDONIA

Prof. Sonja Petrovska, PhD
Faculty of Educational Sciences, University Goce Delcev Stip
E-mail: sonja.petrovska@ugd.edu.mk

Assistant Professor Despina Sivevska, PhD
Faculty of Educational Sciences, University Goce Delcev Stip
E-mail: despina.sivevska@ugd.edu.mk

Teaching Assistant Jadranka Runceva, PhD
Faculty of Educational Sciences, University Goce Delcev Stip
E-mail: jadranka.runceva@ugd.edu.mk

Abstract: *The skills and knowledge that teachers acquire during their initial education are the only basis for enabling them to enter the world of the teaching profession. They must be constantly expanded, deepened and innovated according to the changes and needs imposed by the intensive technical, technological, and scientific development, as well as the expressed tendencies for democratization and humanization of school education. In order to achieve this goal, it is necessary for teachers to possess competences for quality educational work and to have the opportunity to continuously professionalize and advance during their careers. The paper is part of the project "Professional Development of Teachers in the Republic of Macedonia - Situations and Challenges"* (*2016-2018*)*. The survey covers 398 teachers* (*primary school teachers from I till V grade and subject teachers*) *from 28 primary and secondary schools in the Republic of Macedonia. The survey's purpose is to study the attitudes and opinions of teachers about the position and functionality of the system of professional development of teachers in the Republic of Macedonia, in order to improve it. In this context, we tried to answer the following questions: who should determine the aims and contents of the teachers' professional development; who should perform the organized trainings, and what are the factors that can contribute to the promotion of the professional development of teachers. The obtained results point to the need for changes in the pedagogical-organizational setup of the system for professional development of teachers in the Republic of Macedonia.*

Keywords: teachers, professional development, Republic of Macedonia

REFERENCES

Eurydice. Continuing Professional Development for Teachers working in Early Childhood and School Education in Croatia. Retrieved on 6 October 2018 from https://eacea.ec.europa.eu/-national-policies/eurydice/content/continuing-professional-development-teachers-working-early-childhood-and-school-education-13_fi

Eurydice. Continuing Professional Development for Teachers working in Early Childhood and School Education in FYROM. Retrieved on 6 October 2018 from https://eacea.ec.europa.eu/-national-policies/eurydice/content/conditions-service-teachers-working-early-childhood-and-school-education-47_en

Eurydice. Continuing Professional Development for Teachers working in Early Childhood and School Education in Montenegro Retrieved on 6 October 2018 from https://eacea.ec.europa.-eu/national-policies/eurydice/content/continuing-professional-development-teachers-working-early-childhood-and-school-education-48_en

Eurydice. Continuing Professional Development for Teachers working in Early Childhood and School Education in Serbia Retrieved on 6 October 2018 from https://eacea.ec.europa.eu/-national-policies/eurydice/content/continuing-professional-development-teachers-working-early-childhood-and-school-education-63_en

Eurydice. Continuing Professional Development for Teachers working in Early Childhood

and School Education in Slovenia Retrieved on 6 October 2018 from https://eacea.ec.europa.-eu/national-policies/eurydice/content/continuing-professional-development-teachers-working-early-childhood-and-school-education-73_en

OECD (2009). Creating Effective Teaching and Learning Environments: First Results from TALIS, Retrived on 6 October 2018 from https://www.oecd.org/berlin/43541636.pdf

Standard for teachers' professional development (2016)/ Retrieved on 6 October 2018 from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/537031/160712_-_PD_Expert_Group_Guidance.pdf

Law on the Bureau for the Development of Education. Consolidated text [Закон за Бирото за развој на образованието. Консолидиран текст]. Retrieved on 27 August 2018 from http://mon.gov.mk/images/documents/zakoni/zakon_za_bro_26-02-2016.pdf

Law on Teachers in Primary and Secondary Schools. Consolidated text [Закон за наставници во основните и средните училишта. Консолидиран текст]. Retrieved on 22 August 2018 from http://mon.gov.mk/index.php/2014-07-24-06-34-40/zakoni

FRI-2G.405-1-PP-07

REQUIREMENTS FOR TEACHER EDUCATION IN VOCATIONAL EDUCATION AND TRAINING

Assis. Prof. Katerina Mitevska Petrusheva
Faculty of education, International Balkan University – Skopje
Phone: +38975499537
E-mail: mitevska_kate@yahoo.com

Assoc. Prof. Biljana Popeska, PhD
Faculty of educational sciences, Goce Delcev University – Stip, Macedonia
Phone: +38975499380
E-mail: biljana.popeska@ugd.edu.mk

Full Prof. Snezana Jovanova – Mitkovska, PhD
Faculty of educational sciences, Goce Delcev University – Stip, Macedonia
Tel.: +38970228070
E-mail: snezana.jovanova@ugd.edu.mk

Abstract: *One of the goals of education today is to prepare young people with knowledge, skills and competences that will be required tomorrow and will enable them to be concurrent at the labor market. In recent years, special emphasis is placed on vocational education and training. One of the keys for successful vocational education and training is highly qualified teachers. However, when it comes to vocational education, this issue has its own specifics, because teachers beside basic pedagogical competences should also fulfill and other conditions aligned with the specific area of work. There are different practices between countries regarding the requirements that teachers in vocational educations should fulfill. In most of the countries, main condition is a degree in specific area and pedagogical training, while in some countries relevant experience in the field is required. In this regard, this paper analyses the issue related with requirements that teacher should fulfill, in a meaning of initial education and other conditions in order to work as teachers in vocational education and training. The emphasis is given on analyses of specific requirement related with the type and level of pedagogical training and education needed for specific area; working experience in specific aria of work, as well as specific requirements needed to become a teacher in Vocational education. A comparative analysis has been made at a sample of universities in the Balkan region and other European countries. Analysis shows that there are different approaches in the system of vocational education, as well as criteria for being vocational education teacher.*

Keywords: *Initial teacher education, pedagogical competences, vocational education and training.*

 Copyrights© http://conf.uni-ruse.bg

REFERENCES

Buchberger, F., Campos, B.P., Kallos, D. & Stephenson, J. (2000) Green Paper on Teacher Education in Europe, Thematic Network on Teacher Education in Europe, Retrived August, 18, 2018 from http://www.see-educoop.net/education_in/pdf/green_book-oth-enl-t02.pdf

Beyond 2015: The Education We Want (2015) UNESCO Retrived June, 6, 2015 from http://-unesdoc.unesco.org/images/0023/002310/231043e.pdf, Accessesed at 01.09.2018

Elaborate for acquisition of pedagogical qualification, UGD, Shtip, 2014 (***Оригинално заглавие:*** *Елаборат за стекнување на педагошка доквалификација, УГД, Штип, 2014 macedonian*) http://ugd.edu.mk/images/FON/pedagoska_dokvalifikacija/Pedagoska-dokvalifika-cija-2014.pdf, Accessed, 10. 09.2018

European Commission/EACEA/Eurydice, 2018. Teaching Careers in Europe: Access, Progression and Support. Eurydice Report. Luxembourg: Publications Office of the European Union. https://publications.europa.eu/en/publication-detail/-/publication/435e941e-1c3b-11e8-ac73-01aa75ed71a1/language-en, Accessed, 27.08. 2018

European Commission/EACEA/ Eurydice, 2013a. Education and training in Europe 2020 Retrived January, Accesses at 18, 2018 http://eacea.ec.europa.eu/education/eurydice/documents-/thematic_reports/163EN.pdf

European Commission/EACEA/Eurydice, 2013b. Key Data on Teachers and School Leaders in Europe. 2013 Edition. Eurydice Report. Luxembourg: Publications Office of the European Union. http://eacea.ec.europa.eu/education/eurydice/documents/key_data_series/-151EN.pdf, Accessed, 27.08. 2018

Justinek, A. (2012). Practical training (further qualification) of teachers in the working process. Twinning-project "Support to the modernization of the education and training system" (***Оригинално заглавие:*** *Јустинек, А. 2012. Практичната обука* (*доквалификација*) *на наставниците во работниот процес. Твининг-проект „Поддршка за модернизација на системот за образование и обука“*). http://www.csoo.edu.mk/images/stories/D3_MK_-Prakticna_obuka_za_nastavnici.pdf, Accessed 10.09.2018

Lancement des Ėcoles Supérieures du professorat et de l'éducation (2013) from http://cache.media.eduscol.education.fr/file/06_Juin/58/6/2013_ESPE_dpresse_259586.pdf, Retrived February, 02, 2018.

Law for vocational education and training (***Оригинално заглавие:*** Закон за стручно образование и обука) http://mon.gov.mk/images/documents/zakoni/zakon-za-strucno-obrazovanie-i-obuka.pdf, Accessed at 13.09.2018.

Law for secondary education (Закон за средното образование) http://mon.gov.mk/-images/Закон_за_средното_ образование07.pdf, Accessed at 13.09.2018

Law on vocational education (***Оригинално заглавие:*** *Zakon o strukovnom obrazovanju*) https://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_30_652.html

Mitevska, Petrusheva, K. (2015). Initial teacher education in function of realization of educational role in school. PhD Thesis, Skopje: Faculty of Philosophy, Institute of pedagogy. (***Оригинално заглавие:*** *Митевска Петрушева, К., 2015. Иницијалното образование на наставниците во функција на воспитната работа во училиштето, Докторска дисертација, Скопје: Филозофски факултет, Институт за педагогија*).

Normatives for the teaching staff in secondary vocational education, Ministry of education and science, Center for vocational education and training, 2008 (***Оригинално заглавие:*** *Норматив за наставен кадар во средното стручно образование, Министерство за образование и наука, Центар за стручно образование и обука, 2008*). http://www.csoo.edu.mk/images/stories/normativ_za_nastaven_kadar_web.pdf, Accessed 01.09. 2018.

Organization and financing of education act, Ministry of Education, Science and Sport of the Republic of Slovenia. http://www.mizs.gov.si/fileadmin/mizs.gov.si/pageuploads/ANG/-Organisation_and_Financing_of_Education_Act_Oct_2016.pdf Accessed, 27.08. 2018.

Professional Standards for Qualified Teacher Status and Requirements for Initial Teacher Training (Revised 2008), Retrived August, 8, 2018 from http://www.rbkc.gov.uk/pdf/qts-professional-standards-2008.pdf

Study program for professional development for acquisition of teaching competences, Faculty of Philosophy, Institute of Pedagogy (***Оригинално заглавие:*** *Студиска програма за стручно професионално усовршување за стекнување на наставнички компетенции, Филозофски факултет, Институт за педагогија*). http://fzf.ukim.edu.mk/ddtest21/-public/uploads/media/studiska_programa.pdf, Accessed at 10.09.2018.

Strategy for vocational education and training in the context of lifelong learning 2013-2020, Ministry of education and science, 2013 (***Оригинално заглавие:*** *Стратегија за стручно образование и обука во контекст на доживотното учење 2013-2020, Министерство за образование и наука, 2013*). http://www.csoo.edu.mk/images//vet%20strategy_mac%20-%20-final.pdf, Accesed 01.09.2018

Strategy on education 2018-2025, Ministry of education and science (***Оригинално заглавие:*** *Стратегија за образованието, Министерство за образование и наука*) http://mon.gov.mk/index.php/dokumenti/strateshki-plan.

Strategy on Teachers (2012-2015), UNESCO http://unesdoc.unesco.org/images/0021/-002177/217775E.pdf, Accessed, 27.08. 2018

Teacher core professional competences and standards, Skopje: Macedonian Civic Education Center (MCGO), 2016 (***Оригинално заглавие:*** *Основни професионални компетенции и стандарди за наставници, Скопје: Македонски центар за граѓанско образование, МЦГО*). http://mkarchive.mcgo.org.mk/wp-content/uploads/2016/07/01-Osnovni-profesionalni-kompe-tencii-i-standardi-za-nastavnici.pdf, Accessed, 03.09.2018

Teachers Matter: Attracting, Developing and Retaining Effective Teachers, pointers for policy development, OECD, 2011. Retrived November, 14, 2017 www.oecd.owrg/edu/school/-48627229.pdfww.oecd.owrg/edu/school/48627229.pdf

The Structure of the European Education Systems 2018/19: Schematic Diagrams, (2018) Eurydice Retrived October, 1, 2018 from https://eacea.ec.europa.eu/national-policies/eurydice/-content/structure-european-education-systems-201819-schematic-diagrams_en

Web sources

Agency for Vocational Education and Training and Adult Education (***Оригинално заглавие:*** *Agencija za strukovno obrazovanje I obrazovanje odraslih*) http://www.asoo.hr/default.aspx?id=657 Accessed 19.09. 2018.

Center for vocational education and training (Центар за стручно образование и обука) http://www.csoo.edu.mk/index.php?option=com_content&task=blogcategory&id=21&Itemid=1 19, Acessed 11.09.2018.

http://www.education.gouv.fr/cid72796/espe-les-ecoles-superieures-du-professorat-et-de-l-education.html, Accessed, 27.08. 2018

https://eacea.ec.europa.eu/national-policies/eurydice/content/slovenia_en, Accessed, 27.08. 2018

https://eacea.ec.europa.eu/national-policies/eurydice/content/croatia_en, Accessed, 27.08. 2018

https://eacea.ec.europa.eu/national-policies/eurydice/content/france_en, Accessed, 27.08. 2018.

FRI-2G.405-1-PP-08

LEVELS OF MOTIVATIONAL WILLINGNESS OF THE STUDENTS SECOND YEAR OF MAJORING PHYSICAL EDUCATION AND SPORTS AT SOFIA UNIVERSITY ST. KLIMENT OHRIDSKI

Assoc. Prof. Iliana Petkova, PhD
Faculty of education
Sofia University „St. Kliment Ohridski“
Tel: + 359 898 747 727
E-mail ilianaopetkova@gmail.com

Assoc. Prof. Georgi Ignatov, PhD
Department of Sport
Sofia University „St. Kliment Ohridski“
Tel: + 359 898 773 735
E-mail: gochev730626@abv.bg

Abstract: *During the teaching process motivation has always been a problem of the present day. This is from fundamental matter for the future teachers. This article presents the results from conducted research at the end of 2016/2017 which includes 26 students from second year Physical Education and Sports at Sofia University Sv. Kliment Ohridski who received the following qualification Teacher in Physical Education and Sports. For evaluation of the academic level motivation a questionnaire is used as an instrument which describes the general motivational status caused by and connected with education of particular speciality in the university.*

Keywords: *academic motivation, higher education, student in speciality „Physical educational and sport“*

REFERENCES

Antonova, M. (2017). Izsledvane vliyanieto na spetsialno-podgotvitelni uprazhnenia i igri pri obuchenie po voleybol na studenti. Disertatsia. Sofiyski universitet „St. Kliment Ohridski“. Departament po sport. (***Оригинално заглавие:*** *Антонова, М. Изследване влиянието на специално-подготвителни упражнения и игри при обучение по волейбол на студенти. Дисертация. СУ „Св. Климент Охридски“. Департамент по спорт. 2017*).

Chavdarova-Kostova, S. (2015). Universitetskata podgotovka na uchitelya – savremenni problemi i predizvikatelstva. Sbornik s nauchni dokladi. Teoria i praktika na psihologo-pedagogicheskata podgotovka na spetsialista v universiteta. Asotsiatsia na profesorite ot slavyanskite strani. Parva kniga. Tom parvi. Izdatelstvo „EKS-PRES“ – Gabrovo, s.142-146. (***Оригинално заглавие:*** *Чавдарова-Костова, С. Университетската подготовка на учителя – съвременни проблеми и предизвикателства. Сборник с научни доклади. Теория и практика на психолого-педагогическата подготовка на специалиста в университета. Асоциация на професорите от славянските страни. Първа книга. Том първи. Издателство „ЕКС-ПРЕС“ – Габрово. 2015, с.142-146*).

Doncheva, Yu., (2015). Podgotovkata na pedagogicheskite kadri – misia, strategia i otgovornost za badeshteto – V: Osma natsionalna konferentsia „Vodim badeshteto za raka” – MEDIATEH, Pleven. (***Оригинално заглавие:*** *Дончева, Ю.* (*2015*) *Подготовката на педагогическите кадри – мисия, стратегия и отговорност за бъдещето – В: Осма национална конференция „Водим бъдещето за ръка” – МЕДИАТЕХ, Плевен, 2015*).

Georgieva, E. (2015). Tendentsii v podgotovkata na savremennite pedagogicheski kadri. Sbornik s nauchni dokladi. Teoria i praktika na psihologo-pedagogicheskata podgotovka na spetsialista v universiteta. Asotsiatsia na profesorite ot slavyanskite strani. Parva kniga. Tom parvi. Izdatelstvo „EKS-PRES“ – Gabrovo, s.87-90. (***Оригинално заглавие:*** *Георгиева, Е. Тенденции*

в подготовката на съвременните педагогически кадри. Сборник с научни доклади. Теория и практика на психолого-педагогическата подготовка на специалиста в университета. Асоциация на професорите от славянските страни. Първа книга. Том първи. Издателство „ЕКС-ПРЕС“ – Габрово. 2015, с. 87-90).

Ignatov, G. (2016). Viziyata na universitetskia prepodavatel spored studenti ot spetsialnost “Fizichesko vazpitanie i sport“ v Sofiyskia universitet „Sv. Kliment Ohridski“. Sbornik s nauchni dokladi. Teoria i praktika na psihologo-pedagogicheskata podgotovka na spetsialista v universiteta. Asotsiatsia na profesorite ot slavyanskite strani. Vtora kniga. Tom parvi. Izdatelstvo „EKS-PRES“ – Gabrovo, s.497-505. (***Оригинално заглавие:*** *Игнатов, Г. Визията на университетския преподавател според студенти от специалност “Физическо възпитание и спорт“ в Софийския университет „Св. Климент Охридски“. Сборник с научни доклади. Теория и практика на психолого-педагогическата подготовка на специалиста в университета. Асоциация на професорите от славянските страни. Втора книга. Том първи. Издателство „ЕКС-ПРЕС“ – Габрово, 2016, с. 497-505*).

Ignatov, G. (2010). Motivatsionni osobenosti za uchebno-sportna deynbost v zanyatiyata po futbol v SU „Sv. Kliment Ohridski“. Vtora mezhdunarodna nauchna konferentsia. Optimizatsia i inovatsii v uchebno-trenirovachnia protses. Sofiyski universitet „Sv. Kliment Ohridski”. Departament po sport. Universitetsko izdatelstvo „St. Kliment Ohridski“. Sofia, s.34-45. (***Оригинално заглавие:*** *Игнатов, Г. Мотивационни особености за учебно-спортна дейнбост в занятията по футбол в СУ „Св. Климент Охридски“. Втора международна научна конференция. Оптимизация и иновации в учебно-тренировъчния процес. СУ „Св. Климент Охридски”. Департамент по спорт. Университетско издателство „Св. Климент Охридски“. София. 2010, с. 34-45*).

Ilieva, I. & Doncheva, Yu., (2013). Analiz na otnoshenieto kam Fizicheskoto vazpitanie i sporta na studenti ot spetsialnost “Preduchilishtna i nachalna uchilishtna pedagogika” pri Rusenski universitet - Nauchni trudove na Rusenskia Universitet - 2013, tom 52. seria 8.2, s.123-130 (***Оригинално заглавие:*** *Илиева, И., Дончева, Ю. Анализ на отношението към Физическото възпитание и спорта на студенти от специалност “Предучилищна и начална училищна педагогика” при Русенски университет. Научни трудове на Русенския Университет. 2013, том 52. серия 8.2, с.123-130*).

Ivanov, Y., Tsolov, B. & Borisova, V. (2005). Tri osnovni problema pred uchebnia protses po fizichesko vazpitanie i sport v balgarskite visshi uchilishta. Godishnik na Minno-geolozhkia universitet „Sv. Ivan Rilski“. Tom 48. Sv. IV. Humanitarni i stopanski nauki. (***Оригинално заглавие:*** *Иванов, Й., Б. Цолов, В. Борисова. Три основни проблема пред учебния процес по физическо възпитание и спорт в българските висши училища. Годишник на Минно-геоложкия университет „Св. Иван Рилски“. Том 48. Св. IV. Хуманитарни и стопански науки. 2005*).

Petkova, I. (2013). Obuchenieto v spetsialnost „Fizichesko vazpitanie i sport“ na Fakulteta za nachalna i preduchilishtna pedagogika – mnenieto na studentite. Peta mezhdunarodna nauchna konferentsia. Optimizatsia i inovatsii v uchebno-trenirovachnia protses. Sofiyski universitet „Sv. Kliment Ohridski”. Departament po sport Universitetsko izdatelstvo „Sv. Kliment Ohridski“. Sofia, s.181-187. (***Оригинално заглавие:*** *Петкова, И., Обучението в специалност „Физическо възпитание и спорт“ на Факултета за начална и предучилищна педагогика – мнението на студентите. Пета международна научна конференция. Оптимизация и иновации в учебно-тренировъчния процес. Софийски университет „Св. Климент Охридски”. Департамент по спорт Университетско издателство „Св. Климент Охридски“. София. 2013, с.181-187*).

Radoslavova, M. & Velichkov, A. (2005). Metodi za psihodiagnostika. Izdatelska kashta Pandora Prim. (***Оригинално заглавие:*** *Радославова, М., А. Величков. Методи за психодиагностика. Издателска къща Пандора Прим. 2005*).

FRI-2G.405-1-PP-09

SWOT ANALYSIS IN PHYSICAL EDUCATION FOR PROMOTION OF MOVEMENT ACTIVITY OF STUDENTS

Assis. Prof. Iskra Ilieva, PhD
University of Ruse "Angel Kanchev", BG
Faculty of Transport, Departament Phisycal Education and Sport
e-mail: isilieva@uni-ruse.bg

Abstract: *The paper reviews the existing SWOT analysis theories and reveals its application to promote movement activity of students. The analysis aims to: (1) develop the idea of enhancing the efficiency of motor culture, physical education and movement activity in everyday life and student environment, and (2) assessing effectiveness in terms of significant benefits for physical, mental and emotional health . Special attention is paid to the resources and effectiveness of SWOT analysis.*

SWOT analysis is a method not only for analysis but also for planning. The SWOT matrix has C-Stretching, B-Veacneses, O-Opportunities, T- Threats. We analyze these components about physical culture, motor culture and movement activity of students.

Keywords: *Analysis Student Movement Activity Approach; SVOT analysis; creative innovation techniques for motor culture analysis, physical education and movement activity; the importance of body posture; self-assessment.*

JEL Codes: I 12, I 21, I 23

REFERENCES

Batoeva, M. (2006). Pedagogicheska psihologia, Sofia: Izdatelstvo „Askoni-Izdat" (***Оригинално заглавие:*** *Батоева Д. и кол.* (*2006*) *Педагогическа и психологическа диагностика, Аскони-Издат, Сф.*).

Boeva, B., V. Ivanova (2018) Teoretichni I metodicheski osnovi na fizicheskoto vazpitanie–parva chast, St. Z. (***Оригинално заглавие:*** *Боева Б., В. Иванова* (*2018*) *Теоретични и методически основи на физическото възпитание, Ст.3.*)

Doncheva, J. (2016) Communicative Competence of The Teacher as The Fundamental Obtaining of its Professionalism, Novokuznezk, voll. 1, pp. 96, http://infed.ru/articles/452/ (***Оригинално заглавие:*** *Дончева, Ю.* (*2016*) *Коммуникативная компетенция учителя как основополагающая его профессионализма.// Новокузнецк, брой 1, стр. 96-104, ISSN 978-5-8353-1991-6.*)

Evropeiska komisia (2008), Byala kniga na sporta.// European Commission, White Paper on Sport.

Ilieva, B. (2017) Socialna podkrepa na vazrastni i stari hora (teoretichni osnovi), R, (***Оригинално заглавие:*** *Илиева, Б., Социална подкрепа на възрастни и стари хора,* (*теоретични основи*)*. Русе, 2017, ISBN 978-619-7418-07-1*).

Geron, E., J. Mutafova (2004). Motivacia pri fizicheskata deinost i sporta, Sofia: Izdatelstvo „NSA PRES" (***Оригинално заглавие:*** *Герон, Е., Ю. Мутафова* (*2006*) *Мотивация при физическата дейност и спорт, НСА ПРЕС, Сф.*).

Kozhuharov, K., V. Kozhuharov (2006). Dvigatelna anatomia, Ruse: Izdatelska baza na RU „A. Kanchev" (***Оригинално заглавие:*** *Кожухаров, К., В. Кожухаров* (*2006*) *Двигателна анатомия, Изд. База на РУ „А. Кънчев", Рс*).

Kunchev, K. (2017). Samoocenka i socialni otnosheniya, http://kunchev.blog.bg/drugi/-2017/10/06/samoocenka-i-socialni-otnosheniia, (***Оригинално заглавие:*** *Кунчев, К.,* (*2017*) *Самооценка и социални отношения*).

McKenzie, Br. (2011). 101 testa za ocenka na fizicheskata godnost, Sofia: Izdatelstvo „NSA PRES" (***Оригинално заглавие:*** *Маккензи, Бр.* (*2011*) *101 теста за оценка на физическа*

годност, НСА ПРЕС, Сф.).

Mileva, E. (2009) Pedagogika na fizicheskoto vazpitaniee i sporta, Sofia: Izdatelstvo „Avangard Prima" (***Оригинално заглавие:*** *Милева, Е.* (*2009*) *Педагогика на физическата възпитание и спорта, Авангард Прима, Сф.*).

Mihailova, N., I. Borisov, T. Megova (2012). Nasoki vav fizikalnoto lechenie pri deformacii na grabnachnia stalb vav frontalnata ravnina, Nauchni trudove RU and SU 2012, Ruse, volume 51, s. 8.1. (***Оригинално заглавие:*** *Михайлова, Н, И. Борисов, Т. Мегова.* (*2012*) *Насоки във физикалното лечение при деформации на гръбначния стълб във фронталната равнина, Научни трудове РУ и СУ 2012, Русе, т. 51, с. 8.1.*).

Momchilova, A. (2017) Teoria i metodika na fizicheskoto vazpitanie i sporta, Ruse: Izdatelstvo „MEDIATEH-Pleven" (***Оригинално заглавие:*** *Момчилова, А.* (*2017*) *Теория на физическото възпитание и спорта, МЕДИАТЕХ - Плевен, Рс.*).

Pencheva, V., Hr. Beloev, M. Fartunova, R. Kyuchukov. (2017) New Educational Platforms in Higher Education, PROCEEDINGS OF UNIVERSITY OF RUSE - 2017, volume 56, book 9, (***Оригинално заглавие:*** *Пенчева, В., Хр. Белоев, М. Фъртунова, Р. Кючуков.* (*2017*) *Нови образователни платформи във висшето образование, Научни трудове РУ и СУ, т.56, с. 10, стр. 9, Рс.*)

Peneva, B. (2011) Uchilishtnoto fizichesko obrazovanie i sport v Evropa – sastoyanie I tendentsii na XXI vek, Sofia: Izdatelstvo „Avangard Prima" (***Оригинално заглавие:*** *Пенева, Б.* (*2011*) *Училищното физическо възпитание и спорт в Европа – състояние и тенденции на XXI век, Авангард Прима, Сф.*).

Rusev, R. (2006) Kibernetika i upravlenie na dvijeniata v sporta, Sofia: Izdatelstvo „GERA ART" (***Оригинално заглавие:*** *Русев, Р.* (*2006*) *Кибернетика и управление на движенията в спорта, ГЕРА АРТ, Сф.*).

Smrikarov, A. How to Make a Lecture more Interesting or Students of The Digital Generation, PROCEEDINGS OF UNIVERSITY OF RUSE - 2017, volume 56, book 9, (***Оригинално заглавие:*** *Смрикаров, А.* (*2017*) *Как да направим една лекция по-интересна за студентите от дигиталното поколение, Научни трудове РУ и СУ, т.56, с. 10, стр. 82, Рс.*).

Stefanova, I. (2017) Kineziologichni osnovi na kineziterapiata, Ruse: Izdatelska baza na RU „A. Kanchev" (***Оригинално заглавие:*** *Стефанова, И.* (*2017*) *Кинезиологични основи на кинезитерапията, Изд. База на РУ „А. Кънчев", Рс*).

Tahtakov, Kr. (2012) Ustroistvo za prevencia na grabnachni izkrivyavaniya i eksperimentalna ocenka na prilogimostta mu, avtoreferat, Sofia. (***Оригинално заглавие:*** *Тахтаков, Кр.* (*2012*) *Устройство за превенция на гръбначни изкривявания и експериментална оценка на приложимостта му, Изд. База на РУ „А. Кънчев"автореферат, Сф*).

Vasilev, J., N. Orloev. (2010) Creative non Linear SWOT Analysis, http://mech-ing.com/journal/Archive/2010/6/2.tehnologii/62_Jordan%20Vasilev.pdf, (***Оригинално заглавие:*** *Василев, Й., Н. Орлоев* (*2010*) *Креативен нелинеен SWOT анализ*).

World Health Organization, http://www.who.int/about/who-we-are/en/

Метод SWOT анализа в стратегическом управлении, http://powerbranding.ru/biznes-analiz/swot/matrix/

SWOT analysis http://www.promise.org.uk/swot.htm

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.405-1-PP-10

MANAGEMENT STRUCTURES IN UNIVERSITY SPORT

Full Prof. Snezana Jovanova – Mitkovska, PhD
Faculty of educational sciences, Goce Delcev University – Stip, Macedonia
Tel.: +38970228070
E-mail: snezana.jovanova@ugd.edu.mk

Assoc. Prof. Biljana Popeska, PhD
Faculty of educational sciences, Goce Delcev University – Stip, Macedonia
Phone: +38975499380
E-mail: biljana.popeska@ugd.edu.mk

Trajco Dimkov, Sci
Independent researcher
Phone: +38971378027
E-mail: dimkovt@gmail.com

Assis. Prof. Katerina Mitevska – Petrusheva
Faculty of Tourisam and management – Skopje
Phone: +38975499537
E-mail: mitevska_kate@yahoo.com

Abstract: *University does not have only academic role in giving knowledge to students. Moreover, they have an important role in creating completely developed persons, ready to answer to the challenges of future and accept responsibilities of life. In this regard, sport has important place in the university life. Organization of sport is not an easy thing to do and sport management as a discipline is a responsible for this task. This paper analyzes the issue of sport management but from the aspect of management of sport at universities. The purpose of this paper is to determine the management structure of universities bodies responsible for sport at universities. The sample comprised of representatives – persons involved in the management of university sport centres or departments from 13 universities from Macedonia, Bulgaria, Croatia, Serbia and Slovenia. Specially designed questionnaire was applied. Descriptive and comparative method were used as method of research. Based on analyses, three forms of management of universities were determined: existence of special centre /department for sport at universities; University sports alliance and Person appointed as coordinator of sport activities at university level. Advantages and disadvantages of each management type were analyzed and presented in the paper.*

Keywords: *universities, sport, management, structure.*

REFERENCES

Alla, J.B., & Inengite, I. (2016).Lleadership styles and staff performance in sports organizations. European Journal of Physical education and Sport Science, 2(5), 76 – 85.

Bonacin, D. (2008). Optimizacija klasično dizajnirane structure sportske organizacije. Magistarski rad, Univerziteta u Sarajevu. Sarajevo: Fakultet sporta I tjelesnog odgoja, Smer - sportski menadžement.

Du Brin, Andrew, J. (2012). Essentials of management, Ninth Edition, Mason, OH: South – western CENGAGE Learning.

Du Brin, A. (2012). Essentials of management (9th Edition, electronic version). Mason: South – Western CENGAGE Learning, USA, google books. https://drive.google.com/file/d-/0ByctuzDL9lM9N2UyNGYwODItNTIzYS00OTY2LTliOGYtYmU5ZWIxNzdjNWQw/view превземено на 20.08.2018

Mašala, A., Manić, G., & Mahmutović, I. (2015). Karakteristike i osobine menadžera u sportu. Zbornik radova X međunarodna naučna konferencija "Izazovi savremenog menadžmenta

u sportu" (pp. 195 – 206), Beograd.

Мицевски, Т. (2009): Менаџмент на човечки ресурси, Штип: Универзитет „Гоце Делчев

Nesić, M., Fratrić, F., & Ilić, D. (2011). Education of sport managers in the context of Bologna process. Research in Kinesiology, 39(2), 221 – 226.

Parčina, I., Jovišić Simić, M., & Terzić, e. (2016). Ljudski kapital u sportskim organizacijama. Zbornik radova 12. Međunarodna naučna konferencija OBRAZOVANJE U SPORTU (pp. 38 - 44), Beograd, Maj, 2016

Popeska, B., Jovanova-Mitkovska, S., Dimkov, T., Smilkov, N. (2016). Conditions and perspectives of university sport in Macedonia and other Balcan Countries. Knowledge - International Journal, Scientific and Applicative Papers, 13.3.pp. 417 – 423.

Popeska,B., Barbareev, K & Janevik – Ivanovska, E. (2015). Organization And Realization of Univesrity Sport Activities in Goce Delcev University - Stip. Procedia – Social and Behavioral Sciences, 197. p.p. 2293 – 2302. ISSN 1877-0428.

Yang Jae-Keun. (2010). The relationship between organizational justice and organizational effectness percieved by sport center employee. Proceedings of the 5th International Congress "Youth sport 2010" (pp.405 - 408). University of Ljubljana, Slovenia.

Terzić, Z., & Životić, D. (2016). Liderstvo kao složena menadžerska aktivnost. Zbornik radova 12. Međunarodna naučna konferencija OBRAZOVANJE U SPORTU (pp. 130 - 136), Beograd, Maj, 2016.

Tomic M., (2007). Sportski Menadzment, Beograd.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.405-1-PP-11

STUDY OF STUDENTS WEIGHTLIFTERS' ATTITUDES TOWARDS "LANGUAGE THROUGH SPORT" METHOD OF TEACHING

Prof. Eleonora Mileva, DcS
Department of Psychology, Pedagogy and Sociology,
National Sports Academy "Vasil Levski", Bulgaria
E-mail: emileva2002@yahoo.com

Assoc. Prof. Nely Yankova, PhD
Department of Weightlifting, Boxing, Fencing and Sports for All
National Sports Academy"Vasil Levski", Bulgaria
E-mail: yankova_nsa@abv.bg

Assoc. Prof. Valentin Panajotov, PhD
Department of Weightlifting, Boxing, Fencing and Sports for All
National Sports Academy"Vasil Levski", Bulgaria
E-mail: panajotov_v@abv.bg

Ass. Prof. Vesela Slavova, PhD
Department of language teaching and information technologies
National Sports Academy"Vasil Levski", Bulgaria
E-mail: vesselaslav@abv.bg

Abstract: *The modern sport's achievements and sports pedagogical science' evolution require constant qualification and continuous improvement of knowledge and professional competencies of future coaches. The paper is aimed at analysis of weightlifting students' attitudes and needs towards new "Language through sport" method of teaching and sports terminology learning in sports education setting. The survey was conducted with 40 respondents, students at the National Sports Academy, aged 24 years. The analysis of the results showed a lack of learning experiences in the use of this method in sports training. Weightlifting students have markedly positive attitude towards sports terminology teaching in sports training. The main advantages of using this new method of teaching are among others better illustrated basic terms of the sport, easy access to video resources, learning effectiveness, attractiveness and innovation in sports training. Weightlifting specialists realize positive influence of the "Language through sport" method of teaching sports terminology. They believe it will help them acquiring specific knowledge necessary for their future professional career of coaches and judges at international level.*

Keywords: *sports terminology, English language, new method, students, weightlifting.*

REFERENCES

Chopov, T., (2013) Pedagogy of the language. Sofia: Universitetsko isdatelstvo "St Kliment Ohridski" (***Оригинално заглавие*** Шопов, Т. 2013 *Педагогика на езика*, С., УИ „Св. Кл. Охридски").

Mileva, El., (2008). Transferable skills in European educational model for physical education teachers. Sofia: Sport & Sciance, Vol. 6 (***Оригинално заглавие*** Милева, Ел. 2008 *Преносимите умения в европейския образователен модел за учители по физическо възпитание*, - Спорт и наука, бр. 6.

Mileva, El., (2012). European dimensions of sports pedagogical education. Sofia: Izdatelstvo Avangard Prima (***Оригинално заглавие*** Милева, Ел. 2012 *Европейски измерения на спортнопедагогическото образование*, С., Авангард Прима).

Slavova, V., El. Mileva. (2012) *The sports students attitudes to e-learning application in foreign language teaching*, Proceeding Book, VI International Scientific Congress "Sport, Stress, Adaptation", Sport & Science, Extra issue.

Slavova, V. (2014). Information and communication technologies in foreign language teaching for students at National Sports Academy "Vasil Levski". Doctoral Dissertation. Sofia: NSA (Славова, В. 2014 *Информационни и комуникационни технологии в обучението по чужд език при студенти от Националната спортна академия «Васил Левски»*. Дисертация, С., НСА).

Slavova, V., El. Mileva. (2014) *Assessment of blended learning course in specific educational context*, 9th FIEP European Congress, Sofia, Bulgaria.

Yonkova, R., Hristakieva, T., Slavova, V., Marinova, N. (2013). Foreign Languages Curriculum (***Оригинално заглавие*** Учебна програма по чужд език, 2013- *В:* Учебна документация за специалност «Физическо възпитание», ОКС «Бакалавър», С., НСА ПРЕС).

FRI-2G.405-1-PP-12

APPLICATION OF THE VARIABLE INTENSITY IN BOXING

Assoc.Prof. Evtim Lefterov Ph.D
Department TABF
NSA "Vasil Levski"
Tel.: 0893396477
E-mail: effo1@abv.bg

Abstract: *In the present article we offer our trial from using the method of the variable intensity as a part of the one the main methods in the preparation of female boxing competitors.*

Keywords: *boxing, national team, preparation intensity.*

REFERENCES

Gelizkov, Cv. (2002). Osnovi na sportnata trenirovka. GERAART OOD (***Оригинално заглавие:*** *Желязков, Цв.* (*2002*) *Основи на спортната тренировка. ГЕРААРТ ООД*)

Zhechev, E. (1985).Box. Sofia. Medicina i fizkultura. (***Оригинално заглавие:*** Жечев, Е. (1985), Бокс, СОФИЯ МЕДИЦИНА И ФИЗКУЛТУРА)

Lefterov, E. (2005).Kick box. Sofia. NSA Pres (***Оригинално заглавие:*** *Лефтеров, Е.* (*2005*) *Кик бокс СОФИЯ НСА ПРЕС*)

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.405-1-PP-13

SOME SOCIOLOGICAL ASPECTS OF KUNG FU

Assoc. Prof. Albena Dimitrova, PhD
Department of Psychology, pedagogy and sociology
National Sports Academy "Vasil Levski", Sofia, Bulgaria
Phone: +359 893 396 370
E- mail: albena234@abv.bg

Abstract: *Bourdieu deals with a particular way of understanding within the "Sociology of Sport" program, which he thinks is often forgotten in the theories of understanding - the one that consists in understanding your body. In the direct practice of sport, violence is eliminated by the Fair Play imperative. He defines Fair play as a dominant meaning in the opposition to violence. Students at kung fu attend an adequate socialization, experience and education in terms of positive and empathetic social and interpersonal relationships, conflict resolution skills, and effective social control.*

The purpose of the empirical sociological study is to identify the content and peculiarities of the violence committed on pupils 5 and 8 and the influence of kung fu.

Methodology of the study: study of literary sources, observation, talk. A specially developed questionnaire was used to reveal the peculiarities of the phenomenon of violence and its prevention.

Keywords: *pupils, sport, kung fu, violence, prevention*

REFERENCES

Burdio, P., (1993). Programa za edna sociologia na sporta. In: Kazani neshta, Sofia: UI „Sv. Kliment Ohridski“, 187-190. (***Оригинално заглавие:*** *Бурдийо, П., 1993. Програма за една социология на спорта. В: Казани неща, София: УИ „Св. Климент Охридски“, 187-190.*)

Gigova, V., R. Damianova, (2012). Statisticheski metodi v sporta, Sofia: NSA PRES. (***Оригинално заглавие:*** *Гигова, В., Р. Дамянова, 2012. Статистически методи в спорта, София: НСА ПРЕС.*)

Goev, K., (1996). Statisticheska obrabotka i analiz na informaciata ot sociologicheski, marketingovi i politicheski izsledvania sas SPSS, Sofia: UI „Stopanstvo“ (***Оригинално заглавие:*** *Гоев, К., 1996. Статистическа обработка и анализ на информацията от социологически, маркетингови и политически изследвания със SPSS, София: Университетско издателство „Стопанство“.*)

Dimitrova, A., (2002). Problemat „nasilie“ sred uchenictite v Plovdiv. In: „Obshtestveno vaspitanie“, br. 1, 30-37. (***Оригинално заглавие:*** *Димитрова, А., 2002. Проблемът „насилие“ сред учениците в Пловдив, В „Обществено възпитание“, бр.1, 30-37.*)

NTSIOM, (2003). ESI „Obshtestveno mnenie za domashnoto nasilie“. (***Оригинално заглавие:*** *НЦИОМ, 2003. ЕСИ „Общественото мнение за домашното насилие “.*)

MVR oficial sait, (2010). Nasilie. (***Оригинално заглавие:*** *МВР официален сайт, Насилие. URL: http: /www.mvr.bg/(Accessed on 09.10.2010.*)

Zlatanova, V., (2004). Nelegitimno nasilie. Sofia: IK „KVAZAR“, 11, 276. (***Оригинално заглавие:*** *Златанова, В., 2004. Нелегитимното насилие. София: ИК „КВАЗАР”, с. 11, 276.*)

Fridman, L., (2002). Horizontalno obshtestvo. Sofia: IK „V. Luckanova“. (***Оригинално заглавие:*** *Фридман, Л., 2002. Хоризонталното общество, София: ИК „В. Люцканова“.*)

Askew, S. and C. Ross (1988). Boys Don’t Cry, Philadelphia, Open University Press.

Cloward, R. and L. Ohlin. (1960), Delinquency and Opportunity (New York: Free Press).

Connell, R. (1996), Teaching the boys: new research on masculinity, and gender strategies for schools. Teachers College Record 98 (2): 206-235.

UNESCO (1987). A Multidisciplinary Study of the Origins and Forms of Violence Sport

Activities. Paris.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.405-1-PP-14

INCREASING SELF-HUMANITY, ACTIVITY, SETTLEMENT AND PSYCHIC STABILITY OF PUPILS RESULTING FROM KUNG FU TRAINING

Assoc. Prof. Vasil Dimitrov, PhD
Department of Management and History of Sport
National Sports Academy "Vasil Levski", Sofia, Bulgaria
Tel.: + 359 892 299 705
E-mail: vassil1331@abv.bg

Abstract: *The extreme nature of school and training sports activities puts the personality of the students to the test. These requirements are becoming more and more intense during an exam and a race where mental and physical endurance are at the heart of success.*

The present study is aimed at testing the effectiveness of kung fu training as a factor in increasing self-esteem, activity, mood and mental performance in students practicing this type of sport.

The aim of the study is to establish the positive impact of practicing kung fu on self-esteem, activity, mood and mental capacity. In order to solve the basic tasks, achieve the goal and prove the hypothesis, a methodology of literary sources study, observation, talk was applied. Measurement of self-esteem, activity, mood and mental performance has been applied to the SAN test.

Keywords: *pupils, sport, kung fu, self-esteem, activity, mood, mental capacity*

REFERENCES

Enctiklopedia po psyhologia, (1998). Sofia: Izdatelstvo „Narodna prosveta“ (***Оригинално заглавие:*** *Енциклопедия по психология, 1998. София: Издателство „Народна просвета”.*)

Ivanov, I., (1999). Metodiki za izsledvane na funkctionalnite sastoiania. Shumen: Izdatelstvo „Aksios“ (***Оригинално заглавие:*** *Иванов, И., 1999. Методики за изследване на функционалните състояния. Шумен: Издателство „Аксиос “.*)

Matrai, N. (2007). Nedostatachnata fizicheska aktivnost provovkira poaivata i na psyhichny razstroistva. URL: http: www.zdrave.bg. (Accessed on 05.03.2017). (***Оригинално заглавие:*** *Матрай, Н. 2007. Недостатъчната физическа активност провокира появата и на психични разстройства.*)

Silami, N. (1996). Rechnik po psyhologia. Pleven: Izdatelstvo „EA – Pleven“. (***Оригинално заглавие:*** Силами, Н., 1996. Речник по психология. Плевен: Издателство „ЕА –Плевен “.)

Tododrov, K. (2000). Kognitivna psyhologia. Gabrovo: UI „Vasil Aprilov“. (***Оригинално заглавие:*** *Тодорков, К., 2000. Когнитивна психология. Габрово: УИ „Васил Априлов”.*)

Fomin, N. & Filin, V. (1975). Vasrastovi osnovi na fizicheskoto vaspitanie. Sofia: Izdatelstvo „MiF“ (***Оригинално заглавие:*** *Фомин, Н. & Филин, В., 1975. Възрастови основи на физическото възпитание. София: Издателство „МиФ“.*)

FRI-2G.405-1-PP-15

GENDER SPECIFIC IN THE AGGRESSIVE BEHAVIOR OF WOMEN

Assist. Prof. Denitsa A. Alipieva, PhD
Department of Pedagogy, Psychology and History,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888-752
E-mail: dalipieva@uni-ruse.bg

Abstract: *The paper reviews existing theories and methods for examinations of aggressive behaviour of women and men. There were conducted many studies about direct and indirect forms of aggression that correlates with gender differences. Evolutionary and genetically gender differences in aggressiveness, even the indirect forms, could be detect early in childhood. Since 80-es of XX century there were conducted many studies for typically mascular and feminine agression*

Keywords: *aggression, direct physical aggression, indirect, relational agression*

REFERENCES

Archer, J. (2010). What is indirect aggression in adults? In: Indirect and Direct Aggression, p. 3-16

Barkow, J.H. (1992). Beneath new culture is old psychology: Gossip and social stratification. In "The Adapted Mind: Evolutionary Psychology and the Generation of Culturetf,

Jerome Barkow, Leda Cosmides, & John Tooby (eds.), 1992, New York: Oxford University Press

Bjorkqvist K. (1994). Sex differences in physical, verbal, and indirect aggression: A review of recent research. Sex Roles. 1994;30:177–188.

Bjorkqvist K, Lagerspetz K, & Kaukiainen A.(2009). Do girls manipulate and do boys fight? Developmental trends in regard to direct and indirect aggression. Aggr Behav. 1992;18:117–127.

Boivin, M., Hymel, S., & Bukowski, W. M. (1995). The roles of social withdrawal, peer rejection, and victimization by peers in predicting loneliness and depressed mood in childhood. Development and Psychopathology, 7, 765–786.

Campbell, A. (2006) 'Sex differences in direct aggression : what are the psychological mediators?', Aggression and violent behavior., 11 (3). pp. 237-264.

Campbell, A., Muncer, S., & Bibel, D. (2001). Women and crime: An evolutionary approach. Aggression and Violent Behavior, 6(5), 481-497.

Card NA, Stucky BD, Sawalani GM,& Little TD. (2008). Direct and indirect aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. Child Dev. 2008;79:1185–1229.

Crick, N. R., & Bigbee, M. A. (1998). Relational and overt forms of peer victimization:A multiinformant approach. Journal of Consulting and Clinical Psychology, 66, 337–347.

Crick NR, & Grotpeter JK. (1995).Relational aggression, gender, and social-psychological adjustment. Child Dev. 66:710–722.

Crick, N. R., Grotpeter, J. K., & Rockhill, C. M. (1999). A social in formation-processing approach to children's loneliness. In K. J.Rotenberg & S. Hymel (Eds.),Loneliness in childhood and adolescence.New York:Cambridge University Press.

Dellasega, C., & Nixon, C. (2003). Girl Wars: 12 strategies that will end female bullying. New York: Fireside.

Doncheva, J. (2017). Aspecti na izyavenoto predizvikatelno povedenie v preduchilishtna vuzrast. Godishna konferenciq na NVU "Vasil Levski", 2017 (1), p.54 (***Оригинално заглавие:***

Дончева Ю. Аспекти на изявеното предизвикателно поведение в предучилищна възраст.// Национален военен университет "Васил Левски", Годишна университетска научна конференция, 2017, брой 1, стр. 54)

Elphinston, R. & Noller, P. (2011). Time to face it! Facebook intrusion and the implications for romantic jealousy and relationship satisfaction. Cyberpsychol Behav Soc Netw. 2011 Nov;14(11):631-5. doi: 10.1089/cyber.2010.0318. Epub 2011 May 6.

Feinberg, M., Cheng, J. & Willer, R. (2012). Gossip as an effective and low-cost form of punishment. Behav Brain Sci. 2012 Feb;35(1):25

Galen BR, & Underwood MK. (1997). A developmental investigation of social aggression among children. Dev Psychol. 1997;33:589–600.

Harmon-Jones, E. (2003). Anger and the behavioural approach system. Personality and Individual Differences, 35, 995–1005.

Ilieva, B. (2014). Razvitie na socialnite uslugi za deca v obshnostta v procesa na deinstitucionalizaciya. In: Suvremenni tendencii za sutrudnichestvo mejdu uchilishteto i semejstvoto, Ruse, pp. 18-23 (***Оригинално заглавие:*** *Илиева, Б., 2014. Развитие на социалните услуги за деца в общността в процеса на деинституционализацията. В:Съвременни тендинции за сътрудничество между училището и семейството, Русе, стр.18-23*)

Lagerspetz KMJ, Bjorkqvist K, & Peltonen T. (1988). Is indirect aggression typical of females? Gender differences in aggressiveness in 11-to 12-year-old children. Aggr Behav. 14:403–414.

McAndrew, F. T., & Shah, S. S. (2013). Sex differences in jealousy over Facebook activity. Computers in Human Behavior,29,2603–260

Moffit, T. & Caspi, A. (2001). Childhood predictors differentiate life-course persistent and adolescence-limited antisocial pathways among males and females. Dev Psychopathol. 2001 Spring;13(2):355-75.

Morris, J., Reese, J., Beck, R., & Mattis, C. (2009). Facebook usage as a measure of retention at a private 4-year institution. Journal of College Student Retention: Research, Theoryand Practice,11,311–322.

Noon, M., & Delbridge, R. (1993). News from behind my hand: Gossip in organizations.Organization Studies,14,23–36.

Osterman, K., Bjorkvist, K., Lagerspertz, K., Kaukainen, A., Landau, S., Fraczek, & Carpara, G. (1998). Crosscultural evidence of female indirect aggression. Agress.Behav., 24, pp. 1 - 8

Paris, J. (2006). Relational Aggression among Adolescents. Counselor Education Master's Theses.Paper 79.

Tackett, J. L., Waldman, I. D., Lahey, B. B. (2009). Etiology and measurement of relational aggression: A multi-informant behavior genetic investigation. Journal of Abnormal Psychology, 118, 722-733.

Trivers, Robert. (1972). Parental Investment and Sexual Selection.

Vaillancourt T, Brendgen M, Boivin M, & Tremblay RE. (2003). A longitudinal confirmatory factor analysis of indirect and physical aggression: Evidence of two factors over time? Child Dev. 74:1628–1638.

Vasileva, V. (2013). Nasilieto i agresiyata sred podrastvashtite. In: Pedagogicheski novosti, 2013 (1), Ruse, p.17 (***Оригинално заглавие:*** *Василева В. Насилието и агресията сред подрастващите. Русе, Русенски университет„А.Кънчев“ сп. Педагогически новости бр.1с.50-67, 2013, стр. 17*)

Wilson, M. I., & Daly, M. (1996). Male sexual proprietariness and violence against wives. Current Directions in Psychological Science, 5, 2–7

FRI-2G.407-1-HEF

FRI-2G.407-1-HEF-01

THE TEMPORARY RUSSIAN GOVERNMENT IN THE MEMORIES OF EVGENIYE UTIN

Assoc. Prof. Emil Indzhov, PhD
Department of Social and Economic Sciences,
Technical University of Gabrovo
E-mail: indzhov@abv.bg

Abstract: *The article presents an analysis of the opinion of Russian military correspondent E. Utin about the initial work of the Temporary Russian Government. The report takes into account its position as regards the Russian foreign and domestic policy as well as the element of the subjective memory. Emphasis was put on the opinion of E. Utin who opposed the introduction of civilian rule during the war. His critical position on the Russian administration's staff policy is related to attracting unprepared civil cases. The reasons for the initially poorly coordinated actions of civilian administration are stated. There is a place of E. Utin's position on the Russian attitude towards the Bulgarian population and the use of force methods against him in the establishment of public order.*

Keywords: *goverment, administration, civil rule.*

REFERENCES

Buzhashki, Evl., (1981). Vaznikvane na burzhoaznata politicheska sistema v Balgaria. Balgaria 1300 "Institutzii i darzhavna traditzia". t.1 Sofia: Izdatelstvo: "Balgarsko istorichesko druzhestvo" (***Оригинално заглавие:*** *Бужашки, Евл., 1981. Възникването на буржоазната политическа система в България.-В: България 1300 „Институции и държавна традиция". т.1, София: Издателство: "Българско историческо дружество".*)

Ganchev, D., (2005). Spomeni. Veliko Tarnovo: Izdatelstvo: "Slovo" (***Оригинално заглавие:*** *Ганчев, Д., 2005. Спомени. В. Търново: Издателство: "Слово"*)

Kosev, K., St. Dojnov. (2003). Osvobozhdenieto 1877-1878. Sofia: Akademichno izdatelstvo: "Marin Drinov" (***Оригинално заглавие:*** *Косев, К., Ст. Дойнов. 2003. Освобождението 1877-1878. София: Академично издателство: "Марин Дринов"*)

Manolova, M., (2003). Normotvorcheskata dejnost na Vremennoto rusko upravlenie v Balgaria 1877-1879. Sofia: Izdatelstvo: "Siela" (***Оригинално заглавие:*** *Манолова, М., 2003. Нормотворческата дейност на Временното руско управление в България 1877-1879. София: Издателство: "Сиела"*)

Parensov, P., (1909). Iz minaloto. Sofia: Izdatelstvo: "Den" (***Оригинално заглавие:*** *Паренсов, П., 1909. Из миналото. София: Издателство "Ден"*)

Utin, E., (2017). Pisma ot Balgaria prez 1877 godina. Veliko Tarnovo: Izdatelstvo: "Abagar" (***Оригинално заглавие:*** *Утин, Е., 2017. Писма от България през 1877 година. В. Търново: Издателство: "Абагар"*)

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.407-1-HEF-02

THE POSITION OF THE RUSE CHAMBER OF COMMERCE AND INDUSTRY FOR THE CONCLUSION OF A TRADE CONTRACT WITH AUSTRIA-HUNGARY

Kremena Todorova – PhD Student
Department of, Natural Sciences and Education
University of Ruse "Angel Kanchev"
Tel.: 082/888 752
E-mail: ktodorova@uni-ruse.bg

Assoc. Prof. Lyubomir Zlatev, PhD
Department of, Natural Sciences and Education
University of Ruse "Angel Kanchev"
Phone: 082/888752
E-mail: lubomir_zlatev@mail.bg

Abstract: *In the beginning of the XX century the trends in international trade were determined by some new tendencies. Branch and professional specializations are undergoing further development. It can be seen as continuous qualitative differentiation of goods, as modernization of technology of commercial transactions and appropriate institutions, as well as raising competitiveness. The Chambers of Commerce and Industry* (*CCI*) *established in Bulgaria during 1895 function not only as regional coordinators in the country. Their activity is based on the most important issues connected to the development of external trade. The nature and the tasks of such Chambers are to support and promote the state policy in this field, to actively cooperate in the emergence of Bulgarian private companies in the world markets. The activity of the CCI is based on singing of trade contracts, customs policies, consular assistance and transport which ensures the connection with major trade centers.*

Keywords: *Ruse Chamber of Commerce and Industry, Austria-Hungary, trade contract, common customs tariff, national production, protectionism.*

REFERENCES

100 godini Rusenska tyrgovsko-industrialna kamara (1995). Dokumentalen sbornik. Ruse. 162-163; 167-168 (***Оригинално заглавие:*** *100 години Русенска търговско-индустриална камара* (*1995*)*. Русе. 162-163; 167-168.*)

Statelova, E., Gryncharov, S., (1999). Istoriq na Bylgaria 1878-1944. Sofia: Izdatelstvo „Anubis". (***Оригинално заглавие:*** *Стателова, Е., Грънчаров, С., (1999) История на Нова България 1878-1944. София: Издателство Анубис*).

Yubileen sbornik na tyrgovsko-industrialnite kamari v Carstvoto po sluchai 25 godini ot osnovavameto im 1895-1920 (1920) Sofia: Pechatnica P. Glushkov. 205, 212-213. (***Оригинално заглавие:*** *Юбилеен сборник на търговско-индустриалните камари в Царството по случай двадесет и пет години от основаването им 1895 – 11/24юни – 1920. (1920). София: Печатница П. Глушков. 205; 212-213*).

Sykrateni protokoli na Rusenskata tyrgovsko-industrialna kamara za redovnata i sesia prez 1906. (1907) Ruse: Pechatnica T. Petrov. 50-52. (***Оригинално заглавие:*** *Съкратени протоколи на Русенската търговско-индустриална камара за редовната ѝ сесия през 1906 г.* (*1907*)*, Русе: Печатница Т. Петров. 50-52*)

Sykrateni protokoli na Rusenskata tyrgovsko-industrialna kamara za redovnata i sesia prez 1907. (1908) Ruse: Pechatnica T. Petrov. 77-78. (***Оригинално заглавие:*** (*Съкратени протоколи на Русенската търговско-индустриална камара за редовната ѝ сесия през 1907 г.* (*1908*)*, Русе: Печатница Т. Петров. 77-78*)

FRI-2G.407-1-HEF-03

KINDERGARTENS IN RUSE BETWEEN THE TWO WORLD WARS

Polya Cherneva, PhD student
Department of Pedagogy, Psychology and History
"Angel Kanchev" University of Ruse
e-mail: pcherneva@.uni-ruse.bg

Abstract: *Kindergartens in Ruse between the two world wars. The report presents information for the founding of kindergartens in Rousse after First World War. It follows the education process and the development of the preschools and boarding schools from 1919 until 1939. Children's schools are the first level of primary education, but they are not mandatory. Kindergarten is a preschool educational approach based on playing, singing, practical activities such as drawing, and social interaction as part of the transition from home to school. Children from 4 to 7 years of age study in kindergarten.*

Keywords: *preschool education, kindergarten, kindergarten teacher, boarding school*

REFERENCES

Antonova, E. (1988). Preduchilishtnoto vazpitanie v Ruse. Spisanie Preduchilishtno vyzpitanie, № 2, pp. 18 – 22. (***Оригинално заглавие:*** *Антонова, Е., Предучилищното възпитание в Русе в края на XIX век, сп. Предучилищно възпитание, № 2, 1988, с. 18-22.*)

Vacheva, S. (1995). Razvitie na preduchilishtno vazpitanie v Bulgaria ot kraya na Parvata svetvna voyna do 1930 g. Godishnik na Shumenski universitet „Episkop Konstantin Preslavski", pp. 159 – 168. (***Оригинално заглавие:*** *Въчева, С., Развитие на предучилищното възпитание в България от края на Първата световна война до 1930 г., Годишник на ШУ „Епископ Константин Преславски, Шумен, 1995, с. 159-168.*)

Vacheva, S., (1998). Nachalo na teoriata i praktikata na obshetsvenoto preduchilishtno vazpitanie v Bulgaria. Spisanie Pedagogika, №1, pp. 74 – 83. (***Оригинално заглавие:*** *Въчева, С., Начало на теорията и практиката на общественото предучилищно възпитание в България. сп. Педагогика, №1, 1998, с. 74 – 84.*)

Vacheva, S. (1999). Preduchilishtnoto vazpitanie v Ruse v peroda mezhdu dvete svetovni voini. Ubileina konferencia „25 godini Shumenski universitet „Episkop Konstantin Preslavski". №2, Shumen, pp. 59 – 62. (***Оригинално заглавие:*** *Въчева, С., Предучилищното възпитание в гр. Русе в периода между двете световни войни, Юбилейна конференция „25 години Шуменски университет „Епископ Константин Преславски", Ч. 2, Шумен, 1999, с. 59 – 62.*)

Darzhaven Arhiv – Ruse. F 59K, opis 1. a.e. 243, L. 2. (***Оригинално заглавие:*** *Държавен Архив – Русе, Ф59 К, оп. 1, а.е.243 , л. 2.*)

Darzhaven Arhiv – Ruse. F 70K, opis 1. a.e. 109, L. 22. (***Оригинално заглавие:*** *Държавен Архив – Русе, Ф 70 К, оп. 1, а.е. 109, л. 22.*)

Darzhaven Arhiv – Ruse. F 76K, opis 1. a.e. 8, L. 190. (***Оригинално заглавие:*** *Държавен Архив – Русе, Ф 76 К, оп. 1, а.е. 8, л. 190.*)

Izlozhenie za sastoyanieto na Rusenskia okrag 1925 – 1926 g. (1927) Ruse, pp. 74 – 77. (***Оригинално заглавие:*** *Изложение за състоянието на Русенския окръг 1925 – 1926 г., Русе, 1927, с. 74 – 77.*)

Izlozhenie za sastoyanieto na Rusenskia okrag prez 1928 g. (1929) Ruse, pp. 58 – 61. (***Оригинално заглавие:*** *Изложение за състоянието на Русенския окръг през 1929 г., Русе, 1929, с. 58 – 61.*)

Izlozhenie za sastoyanieto na Rusenskia okrag prez 1930 g. (1931) Ruse, pp. 88 – 90 (***Оригинално заглавие:*** *Изложение за състоянието на Русенския окръг през 1930 г., Русе, 1931, с. 88 – 90.*)

 Copyrights© http://conf.uni-ruse.bg

Izlozhenie za sastoyanieto na Rusenskia okrag prez 1931 g. (1932) Ruse, pp. 90 – 91. (***Оригинално заглавие:*** *Изложение за състоянието на Русенския окръг през 1931 г., Русе, 1932, с. 90 – 91.*)

Kolektiv. (2004). Prosvetnoto delo v rusenskia krai 1878 - 1944 g. Ruse, pp. 15 – 18. (***Оригинално заглавие:*** *Колектив, Просветното дело в русенския край 1878 – 1944 г., Русе, 2004, с. 15 – 18.*)

Chakyrov, N., Nacheva-Petkova, V. (1961) Istoria na preduchilishtno vazpitanie v Bulgaria. Sofia. pp. 85 – 140. (***Оригинално заглавие:*** *Чакъров, Н. В. Начева-Петкова, История на предучилищното възпитание в България, С., 1961, с. 85 – 140.*)

URL: http://daritelite.bg/blagotvoritelno-prosvetno-druzhestvo-bratstvo-dobrina-yosif-%d-1%96/ > (08.05.2018)

FRI-2G.307-1-LL

FRI-2G.307-1-LL-01

THE LANGUAGE USE IN TWO LITERARY TEXTS BY STOYAN ROBOVSKY

Ivo Bratanov, 1st class teacher, PhD
"Hristo Botev" Secondary School – Ruse
Tel.: +35982-82-90-32
E-mail: ibratanov@abv.bg

Abstract: *The report exploits the language use in two literary texts by the Bulgarian Revival writer and teacher Stoyan Robovsky – "Labyrinth" and "Announcement". "Labyrinth" is published in Ruse in 1874 and the content of the text is restricted to a single page. The "Announcement" is a script and spans two pages. The report exposes the graphic, spelling, phonetic and grammatical peculiarities of the two texts. The characteristic features of the language in both texts are compared to the set of linguistic norms and rules defined by Ivan Momchilov's "Grammar of The New Bulgarian Language"* (*Ruse, 1868*) *which is the primary codification document of the Tarnovo Literary language school. This proves that Stoyan Robovski is one of the main representatives of the Tarnovo Literary language school.*

Keywords: *history of the contemporary Bulgarian literary language; slavic literary language; Ivan N. Momchilov; Stoyan Robovsky; graphic, spelling, phonetic and morphological peculiarities; language-spelling model; dialect; literary tradition.*

JEL Codes:

REFERENCES

Andreychin, L. (1977). Iz istoriyata na nasheto ezikovo stroitelstvo. Sofia: Darzhavno izdatelstvo "Narodna prosveta" (***Оригинално заглавие:*** *Андрейчин, Л. 1977. Из историята на нашето езиково строителство. София: Държавно издателство „Народна просвета"*).

Asenov, P. (1968). Stoyan Popandreev Robovsky. In: Elenski sbornik. Sofia, 324-337 (***Оригинално заглавие:*** *Асенов, П. 1968. Стоян Попандреев Робовски. В: Еленски сборник. Под ред. на Ст. Сираков, София, 324–337*).

Bratanov, I. (2017). Ezikat na izdaniyata na Ivan N. Momchilov vav Vilaetskata pechatnitsa v Ruse. In: *Brod*, 14, 47-62 (***Оригинално заглавие:*** *Братанов, И. 2017. Езикът на изданията на Иван Н. Момчилов във Вилаетската печатница в Русе. В: Брод, бр. 14, 47-62*).

Bratanov, I. (2018). Ezikat na "Pismennitsa na slavyanskiya yazik" na Ivan N. Momchilov (Grafichni i pravopisni osobenosti). In: Arnaudov sbornik (Dokladi i saobshteniya). T. X. Ruse: Izdatelstvo "Leni-An', 373-383 (***Оригинално заглавие:*** *Братанов, И. 2018. Езикът на „ПИСМЕННИЦА НА СЛАВЯНСКІЙ-А ЯЗЫКЪ" на Иван Н. Момчилов* (*Графични и правописни особености*). *В: Арнаудов сборник* (*Доклади и съобщения*). *Т. Х. Русе: Издателство „Лени – Ан", 373-383*).

Istoriya na novobalgarskiya knizhoven ezik (1989). Georgieva, El., Zherev, St. & Stankov, V. (reds.). Sofia: Izdatelstvo na BAN (***Оригинално заглавие:*** *История на новобългарския книжовен език 1989. Отговорни редактори: Елена Георгиева, Стоян Жерев, Валентин Станков. София: Издателство на БАН*).

Ivanova, D. (2017). Istoriya na novobalgarskiya knizhoven ezik. Plovdiv: Universitetsko izdatelstvo "Paisij Hilendarski" (***Оригинално заглавие:*** *Иванова, Д. 2017. История на новобългарския книжовен език. Пловдив: Университетско издателство „Паисий Хилендарски"*).

Karshovsky, P. S. & Bobchev, N. (1931). Stoyan p. Andreev Robovsky. In: Elenski sbornik. Sofia, 231-236 (***Оригинално заглавие:*** *Кършовски, П. С. & Бобчевъ, Н. 1931. Стоянъ п. Андреевъ Робовски. В: Еленски сборникъ. София, 231-236*).

 Copyrights© http://conf.uni-ruse.bg

Keremidchiev, G. (s.a.). Borba za knizhoven ezik i pravopis. Sofia: Izdatelstvo "Hemus" (***Оригинално заглавие:*** *Борба за книжовенъ езикъ и правописъ. Избра, подреди и обясни Г. Керемидчиевъ. София: „Хемусъ" А. Д., s.a.*).

Vachkova, K. (2001). Dve pisma na Ivan Momchilov s ogled istoriyata na novobalgarskiya knizhoven ezik. In: *Izsledvaniya po balgarski ezik.* Veliko Tarnovo: Universitetsko izdatelstvo "Sv. sv. Kiril i Metodij", 299-310 (***Оригинално заглавие:*** *Вачкова, К. 2001. Две писма на Иван Момчилов с оглед историята на новобългарския книжовен език. В: Изследвания по български език. Велико Търново: Университетско издателство „Св. св. Кирил и Методий", 299-310*).

Zherev, St., Stankov, V. & Tsoynska, R. (1989). Istoriya na balgarskiya knizhoven ezik (Uchebnik za 11. i 12. klas na Natsionalnoto sredno uchilishte po kultura). Sofia: Darzhavno izdatelstvo "Narodna prosveta" (***Оригинално заглавие:*** *Жерев, Ст., Станков, В., Цойнска, Р. 1989. История на българския книжовен език* (*Учебник за 11. и 12. клас на Националното средно училище по култура*). *София: Държавно издателство „Народна просвета"*).

FRI-2G.307-1-LL-02

"THE BULGARIAN IN PRISON" – A FORGOTTEN POLISH POEM FROM 1877

Kamen Rikev, PhD
Institute of Slavic Philology
Maria Curie-Skłodowska University in Lublin, Poland
Tel.: +48-514-441-160
E-mail: rikev@umcs.pl

Abstract: *The paper presents the original text and a Bulgarian translation of the poem „The Bulgarian in Prison"* (*„Bulgar w więzieniu"*), *published in the popular Warsaw newspaper „Kłosy"* (*no 604 / 1877*) *by an unidentified author under the pseudonym of Lech-Wanda. The lyric work consists of nine eight-line stanzas and attracts scholarly interest due to its themes and imagery. It is a persuasive example of Polish sympathies towards the Bulgarian liberation cause, which in the same time reveals symbols and cultural concepts that are unusual for the Bulgarian literary context of the period. The paper comments on the most significant similarities and differences between this forgotten poem and Bulgarian pre-liberation poetry.*

Keywords: *poetry, Polish literature, Bulgarian themes, national struggles, national martyrdom, 19th century.*

JEL Codes:

REFERENCES

Bar, A. (ed.) (1936). Słownik pseudonimów i kryptonimów pisarzy polskich oraz Polski dotyczących. T. 2. Pseudonimy i kryptonimy od L–Ż. Kraków: Gebethner i Wolff.

Doroszewski, W. (ed.) (1997). Słownik języka polskiego, t. 1–11. Przedruk elektroniczny. Warszawa: PWN.

Grabowski, S. (1999). Anioł z Bojany. Wiersze o Bułgarii. Antologia. Warszawa: ASPRA.

Lech-Wanda (1877). Bulgar w więzieniu. Kłosy, 604, 13(25).01.1877, p. 3 (51).

Linde, S. B. (1807). Słownik języka polskiego. T. I, cz. I (A–F). Warszawa: Drukarnia XX. Piiarów.

Natora-Macierewicz, H. (1982). Fragmenty księgi redakcyjnej „Kłosów". Kwartalnik Historii Prasy Polskiej, 3–4, 87–93.

FRI-2G.307-1-LL-03

THE MEANING OF THE LABYRINTH IN ONE TEXT BY STOYAN ROBOVSKY

Zvezdelina Bratanova, 1st class teacher, PhD
"Vazrazhdane" Secondary School – Ruse
Tel.: +35982-82-90-32
E-mail: zvbratanova@abv.bg

Abstract: *The report presents "Labyrinth" of the Bulgarian Revival teacher and writer Stoyan Robovsky. The text of the author, published in 1874 in Ruse was considered an interesting creative experiment. It has established an intertwining relationship between language and the meaning it conveys. This concept affected the culture of the Bulgarian Revival. Stoyan Robovsky experimented with the ethical paradigms known to the traditional recipient in order to make sense of them through the symbolism of the labyrinth, which was also used in Bulgarian and Slavic contexts.*

Keywords: *Stoyan Robovsky, text, meaning, ethics, labyrinth, symbol, slavic literature, literary tradition.*

JEL Codes:

REFERENCES

Asenov, P. (1968). Stoyan Popandreev Robovsky. In: Elenski sbornik. Sofia, 324-337 (***Оригинално заглавие:*** *Асенов, П. 1968. Стоян Попандреев Робовски. В: Еленски сборник. Под ред. на Ст. Сираков, София, 324–337*).

Bratanov, I. (2012). Ezikat na Paraskev Damyanovich. In: Sbornik nauchni trudove ot nacionalnata konferencija s mezhdunarodno uchastie "40 godini Shumenski universitet 1971 – 2011". Fakultet po humanitarni nauki. Shumen: Universitetsko izdatelstvo "Episkop Konstantin Preslavsky", 190 – 195 (***Оригинално заглавие:*** *Братанов, И. 2012. Езикът на Параскев Дамянович. В: Сборник научни трудове от Националната конференция с международно участие „40 години Шуменски университет 1971 – 2011". Факултет по хуманитарни науки. Шумен: Университетско издателство „Епископ Константин Преславски", 190 – 195*).

Bratanov, I. (2017). Ezikat na izdaniyata na Ivan N. Momchilov vav Vilaetskata pechatnitsa v Ruse. In: *Brod*, 14, 47-62 (***Оригинално заглавие:*** *Братанов, И. 2017. Езикът на изданията на Иван Н. Момчилов във Вилаетската печатница в Русе. В: Брод, бр. 14, 47-62*).

Dragova, N. (2011). Uchenicheski rakopisen vestnik "Utro dnevnik". In: *Proglas*, XX (2), 73-84 (***Оригинално заглавие:*** *Драгова, Н. 2011. Ученически ръкописен вестник „Утро дневник". В: Проглас, XX* (*2*), *73-84*).

Karshovsky, P. S. & Bobchev, N. (1931). Stoyan p. Andreev Robovsky. In: Elenski sbornik. Sofia, 231-236 (***Оригинално заглавие:*** *Кършовски, П. С. & Бобчевъ, Н. 1931. Стоянъ п. Андреевъ Робовски. В: Еленски сборникъ. София, 231-236*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.307-1-LL-04

POETTE AND OTHERS

Ivaylo Dimitrov – PhD Student
University of Shumen „Konstantin Preslavsky“
Department History and Theory of Literature
and
National Professional High School of Polygraphy and Photography – Sofia
Vice-principal of the School
Tel.: 0877 311 646
E-mail: ivaylo.dimitrov1974@gmail.com

Abstract: *In the poem „Struggle“ („Borba“) – the first published poem written by Ivan Vazov, a different from the widely accepted concept of an author is built, as well as a new interpretation of literary works and creative personality stands out. The poet is not the kind of individual bound to the community, whose voice speaks of the public fate and promotes community values – a concept firmly established in the tradition of the Revival. The poet himself is a personality unique and unequalled, possessing exceptional sensitivity. The moral values he strives for are beauty and love, harmony; what he craves for are the worlds of perfection and nobility. In the poem "Struggle', the Poet is the creator of new cultural values rather than a follower of and one who carries the tradition. These particular personality characteristics of the Poet predetermine the conflict between Himself and the rest, as well as between the creative personality and the society.*

Keywords: *Ivan Vazov, poet, creator, „Borba“, Renaissance, collective values, individual values, cultural values*

REFERENCES

Vazov, Iv. (1974). Sabrani sachinenia v dvadeset i dva toma. T. 1. Sofia, 1974, s. 183 – 187. (***Оригинално заглавие:*** *Вазов, Ив.* (*1974*). *Събрани съчинения в двадесет и два тома. Т. 1. София, 1974, с. 183 – 187.*)

Sivriev, S. (1999). MYΘOΣ i TEXNH. Opit varhu balgarskata literatura ot minalia vek. IK „Aleksandar Panov“, Sofia, 1999, s. 123. (***Оригинално заглавие:*** *Сивриев, С.* (*1999*). *MYΘOΣ и TEXNH. Опит върху българската литература от миналия век. ИК „Александър Панов“, София, 1999, с. 123.*)

Teylar, Ch. (1999). Bezpokoystvata na modernostta. IK „Kritika i humanizam“, Sofia, 1999, s. 40. (***Оригинално заглавие:*** *Тейлър, Ч.* (*1999*). *Безпокойствата на модерността. ИК „Критика и хуманизъм“, София, 1999, с. 40.*)

Teylar, Ch. Bezpokoystvata na modernostta. IK „Kritika i humanizam“, Sofia, 1999, s. 23. (***Оригинално заглавие:*** *Тейлър, Ч. Безпокойствата на модерността. ИК „Критика и хуманизъм“, София, 1999, с. 23.*)

Chernokozhev, N. (2000). Vazovata „Borba“ – borba za sebe si, borba s/za drugite. // V: Konstruirane na traditsiyata. Yubileen sbornik v chest na Milena Tsaneva. Sofia, 2000. (***Оригинално заглавие:*** *Чернокожев, Н.* (*2000*). *Вазовата „Борба“ – борба за себе си, борба с/за другите. // В: Конструиране на традицията. Юбилеен сборник в чест на Милена Цанева. София, 2000.*)

FRI-2G.307-1-LL-05

THE PERSONALITY OF ACADEMICIAN MIKHAIL ARNAUDOV IN THE CONTEXT OF THE TEN ARNAUDOV READINGS

Assis. Prof. Nikola Benin, Ph.D
Department of Bulgrian Language, Literature and Art
"Angel Kanchev" University of Ruse
Tel.: 082 888 664
E-mail: nbenin@uni-ruse.bg

Senior Lecturer Iliyana Benina, Ph.D
Department of Foreign Languages,
"Angel Kanchev" University of Ruse
Phone: 082-888 230
E-mail: ibenina@uni-ruse.bg

Abstract: *The article studies the personality of Academician Mikhail Arnaudov from the standpoints of the texts, published in the ten Arnaudov collections. When constructing the image of Michael Arnaudov's personality, we observe the main requirement to seek the truth about his life, and thus we protect ourselves from subjectivism and manipulation, from an apology for the apology's sake or from ignoring facts. The present study clarifies the motives of Acad. Arnaudov to engage in political activity, as well as the specifics of the dossier, written in two different political systems. For the writing of Akad. Arnaudov's biography there are also irrevocable essentials of the research, in which the information about his life in Ruse is presented. The families, belonging to the Veliko Tarnovo clan of the Simidovs and to the clan of the Arnaudovs, were reconstructed, as well as his student's years in Rousse and the participation of Mikhail Arnaudov in the educational initiatives of the Dorostol and Cherven bishoprics in the 30s of the 20th century. The study ends with the emphasis that the great teachers and spiritual masters of Mihail Arnaudov, whose humanist ideals and visions of the world, man and people, he follows steadily, are Prof. Ivan Shishmanov and Johann Wolfgang von Goethe.*

Keywords: *Academician Mikhail Arnaudov, personality, Arnaudov collections.*

REFERENCES

Arnaudov, M. (1936). Vchera, dnes i utre: Pismo do moite priyateli, 1. (***Оригинално заглавие:*** *Арнаудов, М., 1936. Вчера, днес и утре: Писмо до моите приятели, 1*).

Badiu, A. (2004). Opit varhu saznanieto za zlo. Sofia: Litvara. (***Оригинално заглавие:*** *Бадиу, А., 2004. Опит върху съзнанието за зло. София: Литавра*).

Balevski, V. (2010). Mikhail Arnudov kato politik. – V: Arnaudov sbornik. T. 6. Ruse: Leni An, 79. (***Оригинално заглавие:*** *Балевски, В., 2010. Михаил Арнаудов като политик. – В: Арнаудов сборник. Т. 6. Русе: Лени Ан, 79*).

Benin, N. (2010). Mikhail Arnudov i Gyote. – V: Arnaudov sbornik. T. 6. Ruse: Leni An, 48–49. (***Оригинално заглавие:*** *Бенин, Н., 2010. Михаил Арнаудов и Гьоте. – В: Арнаудов сборник. Т. 6. Русе: Лени Ан, 48–49*).

Dimitrov, E. (2008). Dosieto Mikhail Arnudov. – V: Arnaudov sbornik. T. 5. Ruse: Leni An, 72. (***Оригинално заглавие:*** *Димитров, Е., 2008. Досието Михаил Арнаудов. – В: Арнаудов сборник. Т. 5. Русе: Лени Ан, 72*).

Georgieva, E. (2006). Acad. Mikhail Arnudov i Petar Odjakov – rusenci, narichani evropeici. – V: Arnaudov sbornik. T. 4. Ruse: Leni An, 277. (***Оригинално заглавие:*** *Георгиева, Е., 2006. Акад. Михаил Арнаудов и Петър Оджаков – русенци, наричани европейци. – В: Арнаудов сборник. Т. 4. Русе: Лени Ан, 227*).

Jivkov, T. I. (2000). Za Mikhail Arnudov – osem godini po-kasno. Arnaudov sbornik. T. 1. Ruse: Leni An, 7. (***Оригинално заглавие:*** *Живков, Т. I., 2000. За Михаил Арнаудов – осем години по-късно. – В: Арнаудов сборник. Т. I. Русе: Лени Ан*).

Yanakiev, K. (1992). Chastniyat chovec i humanitarnite istini. – V: Obshtuvane i teksta. Sofia: UI "Sv. Kliment Ohridski", 211. (***Оригинално заглавие:*** *Янакиев, К., 1992. Частният човек и хуманитарните истини. – В: Общуване с текста. София: УИ "Св. Климент Охридски", 211*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2.205-1-AS

FRI-2.205-1-AS-01

INTRODUCTION TO MUSIC THEORY – A SYSTEM FOR BASIC MUSIC KNOWLEDGE

Assoc. Prof. Nikolay Gradev, PhD
National Academy of Music "Professor Pancho Vladigerov", Sofia
Phone: 0893-420 225
E-mail: gradev.nikolay@gmail.com

Abstract: *The author of this article introduces his own system of teaching the discipline* ***Introduction to Music Theory*** *at the National Academy of Music "Prof. Pancho Vladigerov" – Sofia, developed as a course in theory and history of harmony. The course has two sections: I. The hierarchic levels of pitch organization of music and II. The structural role of harmony in musical form. The author derives four hierarchic levels of pitch organization which cover all the main harmonic categories: 1. Musical material* (*sound, interval, generic interval systems, mode*)*, 2. Texture of the musical material* (*horizontal vertical and inter-dimensional*)*, 3. Sonic qualities of the musical material* (*harmonic sonance – consonance and dissonance*) *and 4. Functional organization of the musical material* (*harmonic system, harmonic functionality*)*. The forming factors of harmony are considered at two structural levels: 1. In simple musical forms* (*harmony and meter, cadences*) *and 2. In complex musical forms* (*harmony and thematism, modulation*)*. All topics of the Introduction to Music Theory course are studied in a historical-stylistic way, always taking into account the evolution of musical thought over the ages.*

Keywords: *music theory, harmony, musical form, theory and history of harmony, pitch organization of music, structural role of harmony in musical form*

REFERENCES

Gradev, N. (1990). Osnovni aspekti na modalnostta v harmonichnata sistema na Petko Staynov (metodiko-teoretichno izsledvane varhu horovoto tvorchestvo na kompozitora po metodologiyata na Yu. Holopov). Diplomna rabota. Sofia: BDK. (***Оригинално заглавие:*** *Градев, Н., 1990. Основни аспекти на модалността в хармоничната система на Петко Стайнов* (*методико-теоретично изследване върху хоровото творчество на композитора по методологията на Ю. Холопов*)*. Дипломна работа. София*: *БДК.*)

Gradev, N. (1995). Neklasicheski sastoyaniya na tonalnostta v tvorchestvoto na Petko Staynov (teoretiko-metodologichno izsledvane varhu horovata muzika na kompozitora). – V: Balgarsko muzikoznanie, № 4, 3 – 46. (***Оригинално заглавие:*** *Градев, Н., 1995. Некласически състояния на тоналността в творчеството на Петко Стайнов* (*теоретико-методологично изследване върху хоровата музика на композитора*)*. – В: Българско музикознание, № 4, 3 – 46.*)

Gradev, N. (2012). Metod za izsledvane na simetrichnoladovoto muzikalno mislene na Dimiter Nenov. Disertatsiya. Sofia: II – BAN. (***Оригинално заглавие:*** *Градев, Н., 2012. Метод за изследване на симетричноладовото музикално мислене на Димитър Ненов. Дисертация. София*: *ИИ – БАН.*)

Gradev, N. (pod pechat). Hromatichni formi na zvukovisochinna simetriya v muzikata na XIX vek. Sofia. (***Оригинално заглавие:*** *Градев, Н., под печат.* Хроматични форми на звуковисочинна симетрия в музиката на XIX век. София.)

Gradev, N. (2018). Uchebna programa po distsiplinata Vavedenie v teoriyata na muzikata za studentite ot I kurs na TKDF na NMA „Prof. Pancho Vladigerov", prieta na AS na NMA na 22.02.2018 g. (***Оригинално заглавие:*** *Градев, Н., 2018. Учебна програма по дисциплината Въведение в теорията на музиката за студентите от I курс на ТКДФ на НМА „Проф. Панчо Владигеров", приета на АС на НМА на 22.02.2018 г.*)

Kholopov, Yu. (1988). Garmoniya. Teoreticheskiy kurs. Moskva: Muzyka (***Оригинално заглавие:*** *Холопов, Ю., 1988. Гармония. Теоретический курс. Москва*: *Музыка.*)

FRI-2.205-1-AS-02

ENRICHMENT OF CHILDREN'S CREATIVE POTENCIAL THROUGH MUSIC GAMES

Assis. Prof. Petya Stefanova, PhD
University of Ruse "Angel Kanchev", Ruse
Phone: 0896820470
E-mail: pstefanova@uni-ruse.bg

Abstract: *The process of mastering children's music games in themselves creates the conditions for learning skills and knowledge that stimulate non-standard thinking and creative expression of children from an early age. The interest in the game, suitably selected musical games, the teacher's ability to select pre-training methods, prompt the child's imagination to unexpected relations and reactions that can gradually turn into artistic and creative inventive arts. This report looks at different aspects of creativity through children's music games by offering working methods and specific creative tasks related to each stage of the pedagogical process.*

Keywords: *music education, music games, methods of music education, pedagogical process.*

REFERENCES

Atanasova-Vukova, A. (1995). Muzikalnoto wyzpitanie v detskata gradina. Blagoevgrad: IUZU " Neofit Riski". (***Оригинално заглавие:*** *Атанасова-Вукова, А., 1995. Благоевград: ЮЗУ „ Неофит Рилски".*)

Bobrova.N. (2015). Montesori vkyshti.Prakticheskо obuchenie. Sofia: Asenevtsi. (***Оригинално заглавие:*** *Боброва, Н., 2015. Монтесори вкъщи. Практическо обучение. София: Асеневци.*)

Burdeva, T. (2013). Metodika na muzikalnoto vyzpitanie v preduchilishtna vyzrast. Plovdiv: Ekzakt-93. (***Оригинално заглавие:*** *Бурдева, Т.,2012. Методика на музикалното възпитание в предучилищна възраст. Пловдив: Екзакт-93.*)

Doncheva, J. (2014). Konsolidirashtite funkcii na bylgarskite detski folklorni igri v predushilishtna vyzrast. Ruse: Pechatna baza pri RU "Angel Kanchev". (***Оригинално заглавие:*** *Дончева, Ю., 2014. Консолидиращите функции на българските детски фолклорни игри в предучилищна възраст. Русе: Печатна база при РУ „Ангел Кънчев".*)

Ilieva, I. (2012). Motivaciyata pri sportuvane v nachalna uchilishtna vyzrast. Ruse: Pechatna baza pri RU "Angel Kanchev". (***Оригинално заглавие:*** *Илиева, И., 2012. Мотивацията при спортуване в начална училищна възраст. Русе: Печатна база при РУ „Ангел Кънчев".*)

Momchilova. A., I. Ilieva, I. Ilchev, K. Simeonov (2013). Metodicheski nasoki za provejdane na sportnopodgotvitelni uprajneniya i igri v preduchilishtna vyzrast. Ruse: Pechatna baza pri RU "Angel Kanchev". **(*Оригинално заглавие:*** *Момчилова, А., И. Илиева, И. Илчев, К.Симеонов., 2013. Методически насоки за провеждане на спортноподготвителни упражнения и игри в предучилищна възраст. Русе: Печатна база при РУ „ Ангел Кънчев".*)

Nikolova, E., S. Petrova. (1993). Metodika na muzikalnoto i tanzovo obuchenie za preduchilishtna vyzrast. Sofia: Prosveta. (***Оригинално заглавие:*** *Николова, Е., С. Петрова., 1993. Методика на музикалното и танцово обучение за предучилищна възраст. София: Просвета*)

 Copyrights© http://conf.uni-ruse.bg

FRI-2.205-1-AS-03

A MUSICAL EXPERIMENT – WRITING A FIVE-VOICED TRIPLE COMPOUND FUGUE WITH RETROGRADE COUNTERPOINT

Assoc. Prof. Sabin Levi, DMA, FAGO
Department of Music Theory
NAM, "Professor Pancho Vladigerov" Sofia
Phone: 088 - 812 3194
E-mail: krokotak@hotmail.com

Abstract: *This study is a part of series of articles devoted to compositional and polyphonic experiments with one main focus – a compound (multi-thematic) fugue. Compound fugue is a fugue with more than one theme. Fugues written by me on this subject include three-voiced, double, asymmetrically inverted; four-voiced, symmetrically-inverted-choral; six-voiced, quadruple polymetric; and the piece this article is devoted to – five-voiced and triple with a simultaneous exposition and retrograde counterpoint. In this study, various compositional and polyphonic observations related to this project are stated, with a score of the piece enclosed.*

Keywords: *compound (multi-theme) fugue, mirror (inverted) fugue, choral fugue and fughetta, polymetrics, retrograde (crab) counterpoint*

REFERENCES

Gedalge, Andre, Traité de la fugue (1901). Paris: Schola Cantorum.

Mann, Alfred, The Study of Fugue (1958). New Brunswick: Rutgers University Press.

Marpurg, Friedrich Wilhelm, Abhandling von der Fuge (1753-1754). Berlin: n.ed.

Манолов, Здравко и Димитър Христов, Полифония (1977). София: Издателство Музика.

FRI-2.205-1-AS-04

SOUND ABSORPTION

Ass. Prof. Pavel Stefanov, PhD
Department of Sound engineering and Sound design,
National Academy of Music, Sofia, Bulgaria
E-mail: pavel_stfnv@mail.bg

Abstract: *Sound absorption is one of the most important phenomena in spatial acoustics. It has many dependencies and therefore functions differently according to the specific conditions. Absorption of sound is an important factor in shaping the acoustic qualities of any enclosed space intended for some kind of sound events. This article explores some of the main patterns in the process of sound absorption in enclosed spatial volumes.*

Keywords: *Absorption, Sound Wave, Enclosed Space, Absorption Coefficient, Absrption Materials*

REFERENCES

Beranek, L.L. (1954), Acoustics, McGraw-Hill

Bruel, P.V. (1951) Sound Insulation and Room Acoustics, Chapman and Hall

Everest, F.A. (1984) Acoustic Techniques for Home and Studio, 2nd ed., Tab Books

Everest, F.A., & Pohlmann, K.C. (2009). Master Handbook of Acoustics. McGraw-Hill

Mackenzie, R. (1975) Auditorium Acoustics, Applied Science Publishers, Ltd.

Meyer, J. (2009). Acoustics and the Performance of Music. Springer Science+Business Media, LLC

FRI-K.201-1-HP

FRI-K.201-1-HP-01

A SERIOUS TRAUMA ON A WOMAN AT THE AGE OF 21. SHE IS ACTUALLY 47 NOW WITH BIG WALKING DIFFICULTY EVEN USING CODIVILLA SPRINGS. SHE HAS BEEN TREATED WITH B.A.E. METHOD FOR TEN AND A HALF MONTHS

Tiziano Pacini
ul. D. Vatax, 30 -1510 Sofia,
Bulgaria Cell. +359878474304, +393355262723,
email: tizianopacini@gmail.com

Elisabetta De Juliis
via Mulinaccio,11 - 50032 Borgo San Lorenzo,
Italia Cell. +393356477583,
e-mail: elisadejuliis@gmail.com

Andrea Pacini
via Mulinaccio,11 - 50032 Borgo San Lorenzo,
Italia Cell. +393383856086,
email: pacioandre@gmail.com

Loredana Granata
via G.Verdi, 26, - 50066 San Clemente,
Reggello Italia Cell. +393881460207,
e-mail: loredanagranata28@gmail.com

Abstract: *A serious trauma due to a car accident 26 years before the B.A.E. treatment: the L4 and L5 vertebras were fractured. The person walks in shaky way and has pain in the whole body. Method: person with results of surgery for Lumbar fracture fixation and a residual scoliosis and postural inconvenience on the entire body; treated with Biomechanical Anthropometric Ergonomic Method.*

Keywords*: Posture, Biomechanical Anthropometric Ergonomic Method, Traumas, Post-surgery Pain in the Back, Walking Difficulty.*

JEL Codes: I 10, I 20

REFERENCES

Massara G., Pacini T., Vella G. Ergonomia del sistema posturale, Fabrica del 3° millennio, Marrapese Ed. S.R.L. Roma, 2008

Pacini T., Biomechanical Anthropometric Ergonomic Method for Assessment and Correction of the Human Posture, PhD Thesis, University of Ruse “Angel Kanchev”, 2015

Pacini T., Biomechanical Anthropometric Ergonomic Method for Assessment and Correction of the Human Posture, PhD Thesis, University of Ruse “Angel Kanchev”, 4, 2012

Pacini T., E. de Juliis., E. Coly, Vzaimodejstvie mezdu lumbalna lordoza i m.iliopsoas. Nauka i sport, 6, 2013

Pacini T., Neck posture, cervical spine problems, temporomandibular joints and the Anthropometric Ergonomic Biomechanical (A.E.B.) Method, University of Ruse “Angel Kanchev”, 2013

Pacini T., F. Pivetta, E. de Juliis, Neck’s posture: woman 54 years old suffering from Dizziness, Labyrinthitis, Headache, Neck Pain, Shoulder Pain, Carpal Tunnel Syndrome, treated with Biomechanical Anthropometric, University of Ruse “Angel Kanchev”, 2013

Planas P., Rehabilitacio Neuro – Occlusal (2ed.), Amolca 2008.

Rocabado M., Annette Z.I. Musculoskeletal Approach to Maxillofacial Pain, Lillincott Williams and Wilkins, 1991.

 Copyrights© http://conf.uni-ruse.bg

FRI-K.201-1-HP-02

A CASE OF SCOLIOSIS IN A 20 YEAR- OLD WOMAN PERSON REPORTS HEADACHE, PANIC CRISIS AND SOME RARE BACK PAIN. PERSON WORE AN ORTHOPEDIC CORSET AT THE AGE OF 10 FOR A YEAR. TREATED WITH B.A.E. METHOD: CONTROLLED AFTER EIGHT MONTHS

Tiziano Pacini
ul. D. Vatax, 30 -1510 Sofia,
Bulgaria Cell. +359878474304, +393355262723,
email: tizianopacini@gmail.com

Elisabetta De Juliis
via Mulinaccio,11 - 50032 Borgo San Lorenzo,
Italia Cell. +393356477583,
e-mail: elisadejuliis@gmail.com

Andrea Pacini
via Mulinaccio,11 - 50032 Borgo San Lorenzo,
Italia Cell. +393383856086,
email: pacioandre@gmail.com

Loredana Granata
via G.Verdi, 26, - 50066 San Clemente,
Reggello Italia Cell. +393881460207,
E-mail: loredanagranata28@gmail.com

Abstract: *Scoliosis in a 20 year-old woman. She wore an orthopedic corset at the age of 10 for a year. Treated and checked with Biomechanic Anthropometric Ergonomic Method. She reports headache, panic crisis and some rare back pain. Method: person with negative results on classic rehabilitation for scoliosis treated with orthopedic corset with armpit supports for a year; she has been treated with Biomechanic Anthropometric Ergonomic Method for 8 months.*

Keywords*: Posture, Biomechanical Anthropometric Ergonomic Method, Scoliosis, Headache, Panic Crisis, Back Pain.*

JEL Codes: I 10, I 20

REFERENCES

Massara G., Pacini T., Vella G. Ergonomia del sistema posturale, Fabrica del 3° millennio, Marrapese Ed. S.R.L. Roma, 2008

Pacini T., Biomechanical Anthropometric Ergonomic Method for Assessment and Correction of the Human Posture, PhD Thesis, University of Ruse “Angel Kanchev”, 2015

Pacini T., Biomechanical Anthropometric Ergonomic Method for Assessment and Correction of the Human Posture, PhD Thesis, University of Ruse “Angel Kanchev”, 4, 2012

Pacini T., E. de Juliis., E. Coly, Vzaimodejstvie mezdu lumbalna lordoza i m.iliopsoas. Nauka i sport, 6, 2013

Pacini T., Neck posture, cervical spine problems, temporomandibular joints and the Anthropometric Ergonomic Biomechanical (A.E.B.) Method, University of Ruse “Angel Kanchev”, 2013

Pacini T., F. Pivetta, E. de Juliis, Neck’s posture: woman 54 years old suffering from Dizziness, Labyrinthitis, Headache, Neck Pain, Shoulder Pain, Carpal Tunnel Syndrome, treated with Biomechanical Anthropometric, University of Ruse “Angel Kanchev”, 2013

Planas P., Rehabilitacio Neuro – Occlusal (2ed.), Amolca 2008.

Rocabado M., Annette Z.I. Musculoskeletal Approach to Maxillofacial Pain, Lillincott Williams and Wilkins, 1991.

FRI-K.201-1-HP-03

BIOGENIC AMINES IN MEAT PRODUCTS - HEALTH AND LEGISLATION

Daniela Mitreva, Eng. PhD student
Department of Meat and fish technology,
Univesity of Food Technologies – Plovdiv, Bulgaria
Phone: +359 883 595 261
E-mail: dani_to89@abv.bg

Elka Toseva, Head Assist. Prof. MD, PhD
Department of Hygiene and Ecomedicine,
Medical University of Plovdiv, Bulgaria
Phone: +359 878 405 947
E-mail: elka_toseva@abv.bg

Abstract: *The biogenic amines are a heterogeneous group of biologically active substances. The exogenous amines are directly absorbed from food in the intestine. The aim of the study is to perform a systematic review of the impact of biogenic amines on human health (mainly from the group of polyamines) in meat products and the state of legislation to limit them in Bulgaria. Materials and methods: literary search was made in PubMed, Web of Science, EFSA, FAO, WHO and Bulgarian legislation databases for the period 1996-2018. Results: the paper reviews cadaverine, putrescine, spermine, spermidine and histamine, their formation in meat products, their health effect and the no-observed-adverse-effect level (NOAEL). Conclusion: High levels of biogenic amines in meat products can be toxic to consumers. Their presences are indicative of poor quality of meat products. There is no legislation in Bulgaria about regulating the concentrations of biogenic amines in meat products at this stage.*

Keywords: *Biogenic amines, Cadaverine, Putrescine, Spermine, Spermidine, Histamine, Foods, Meat products, Health effects, Control.*

JEL Codes: I 10, I 12

REFERENCES

Ali, M., Poortvliet, E., Strömberg, R, and Yngve, A. (2011a). Polyamines in foods: development of a food database. Food Nutr Res, 55: 10.3402/fnr.v55i0.5572. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3022763/pdf/FNR-55-5572.pdf (Accessed on 24.08.2018).

Ali, M., Poortvliet, E., Strömberg R. and Yngve, A. (2011b). Polyamines: total daily intake in adolescents compared to the intake estimated from the Swedish Nutrition Recommendations Objectified (SNO). Food & Nutrition Research, 55: 10.3402/fnr.v55i0.5455. Available at: https://foodandnutritionresearch.net/index.php/fnr/article/view/466 (Accessed on 24.08.2018).

Alvarez, M.A., Moreno-Arribas, V.M. (2014). The problem of biogenic amines in fermented foods and the use of potential biogenic amine-degrading microorganisms as a solution. Trends in Food Science & Technology, 39(2), pp. 146-155.

Commission Implementing Regulation (EU) 2017/2470 of 20 December 2017 establishing the Union list of novel foods in accordance with Regulation (EU) 2015/2283 of the European Parliament and of the Council on novel foods. URL: https://eur-lex.europa.eu/legal-content/EN/-TXT/HTML/?uri=CELEX:32017R2470&from=BG (Accessed on 24.08.2018).

Commission Regulation (EU) No 1019/2013 of 23 October 2013 amending Annex I to Regulation (EC) No 2073/2005 as regards histamine in fishery products. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32013R1019 (Accessed on 24.08.2018)

EFSA Panel on Biological Hazards (BIOHAZ). (2011). Scientific Opinion on Scientific Opinion on risk based control of biogenic amine formation in fermented foods. EFSA Journal, 9(10), p. 2393. Available at: https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2011.2393.

FAO/WHO [Food and Agriculture Organization of the United Nations/World Health

 Copyrights© http://conf.uni-ruse.bg

Organization] (2013). Public Health Risks of Histamine and other Biogenic Amines from Fish and Fishery Products. Meeting report. [ebook] Rome: FAO and WHO. Available at: http://www.fao.-org/fileadmin/user_upload/agns/pdf/Histamine/Histamine_AdHocfinal.pdf (Accessed on 15.08.2018).

Gugliucci, A., Menini, T. (2003). The polyamines spermine and spermidine protect proteins from structural and functional damage by AGE precursors: a new role for old molecules?. Life Sciences, 72(23), pp. 2603 – 2616.

Jairath, G., Singh, P.K., Dabur, R.S., Rani, M., Chaudhari, M. (2015). Biogenic amines in meat and meat products and its public health significance: a review. Journal of Food Science and Technology, 52(11), pp. 6835–6846.

Naila, A., Flint, S., Fletcher, G., Bremer, P., Meerdink, G. (2010). Control of Biogenic Amines in Food—Existing and Emerging Approaches. J Food Sci., 75(7), R139–R150.

Naredba № 35 ot 23 Mart 2006 g. za spethifichnite iziskvaniya pri osashtestvyavane na ofitsialen kontrol varhu surovini i hrani ot zhivotinski proizhod. URL: https://www.-lex.bg/laws/ldoc/2135523050 (Accessed on 24.08.2018).

National Center for Biotechnology Information. PubChem Compound Database. URL: https://pubchem.ncbi.nlm.nih.gov/compound/ (Accessed 29.08.2018).

Önal, A. (2007). A review: Current analytical methods for the determination of biogenic amines in foods. Food Chemistry, 103(4), pp. 1475-1486.

Ordóñez, J.L., Troncoso, A.M., García-Parrilla M.DelC., Callejón, R.M. (2016). Recent trends in the determination of biogenic amines in fermented beverages – A review. Analytica Chimica Acta, 939, pp. 10-25.

Püssa, T. (2013). Toxicological issues associated with production and processing of meat. Meat Science, 95(4), pp. 844-853

Ruiz-Capillas, C., Jiménez-Colmenero F. (2004). Biogenic amines in meat and meat products. Crit Rev Food Sci Nutr., 44(7-8), pp. 489-99.

Russo, P., Spano, G., Arena, M.P., Capozzi, V., Fiocco, D., Grieco, F., Beneduce. L. (2010). Are consumers aware of the risks related to Biogenic Amines in food? In: A. Mendez-Vilas, ed. Curent Research, Technology and Education Topics in Applied Microbiology and Microbial Biotechnology. Badajoz: Formatex, pp. 1087-1095.

Sarkadi, L.S. (2009). Biogenic Amines (Part 3.2). In: R.H. Stadler and D.R Lineback, eds. Process-Induced Food Toxicants. Occurrence, Formation, Mitigation, and Health Risks. John Wiley & Sons: Hoboken, NJ, USA, pp. 321–361.

Shalaby, A. R. (1996). Significance of biogenic amines to food safety and human health. Food Research International, 29 (7), pp. 675-690.

Silla Santos, M.H. (1996). Biogenic Amines: Their Importance in Foods. International Journal of Food Microbiology, 29 (2-3), pp. 213-231.

Spano, G., Russo, P., Lonvaud-Funel, A., Lucas, P., Alexandre, H., Grandvalet, C., Coton, E., Coton, M., Barnavon, L., Bach, B., Rattray, F., Bunte, A., Magni, C., Ladero, V., Alvarez, M., Fernández, M., Lopez, P., de Palencia, P.F., Corbi, A., Trip, H., Lolkema, J.S. (2010). Biogenic amines in fermented foods. European Journal of Clinical Nutrition, 64(3), pp. S95-100.

Stadnik, J., and Dolatowski Z. J. (2010). Biogenic Amines in Meat and Fermented Meat Propducts. Acta Sci. Pol., Technol. Aliment., 9(3), pp. 251-263.

Stoyanov, S., (1999). Estestveni toksichni veshtestva v hranitelnite produkti: Alergichni reaktsii na choveka, klinichna kartina, lechenie i profilaktika. Sofia: Izdatelstvo „Pensoft Publishers“.

Suzzi, G. and Gardini F. (2003). Biogenic amines in dry fermented sausages: a review. International Journal of Food Microbiology, 88(1), pp.41-54

U.S. Department of Health and Human Services Food and Drug Administration Center for Food Safety and Applied Nutrition. (2011). Fish and Fishery Products Hazards and Controls Guidance. 4th ed. [ebook] Rockville: Available at: https://www.fda.gov/downloads/food/-guidanceregulation/ucm251970.pdf (Accessed on 24.08.2018).

FRI-K.201-1-HP-04

PARENTS' AWARENESS OF THE IMPACT OF THE TRAFFIC-RELATED URBAN AIR POLLUTION ON CHILDREN'S HEALTH

Prof. Tanya Turnovska, MD, PhD, DMSc
Department of Hygiene and Ecomedicine,
Medical University of Plovdiv, Bulgaria
Phone: +359 882 860 516
E-mail: turnovt@yahoo.com

Chief Assist. Prof. Slaveya Petrova, PhD
Department of Ecology and Environmental Conservation
Plovdiv University "Paisii Hilendarski", Bulgaria
Tel: +359 32 261 519
E-mail: sl.petrova@abv.bg

Prof., Head of Department, Iliana Velcheva, PhD
Department of Ecology and Environmental Conservation
Plovdiv University "Paisii Hilendarski", Bulgaria
Tel: +359 32 261 565
E-mail: anivel@abv.bg

Assoc. Prof. Stanislava Harizanova, MD, PhD
Department of Hygiene and Ecomedicine,
Medical University of Plovdiv, Bulgaria
Phone: +359 887 915 119
E-mail: dr.harizanovi@abv.bg

Head Assist. Prof. Elka Toseva, MD, PhD
Department of Hygiene and Ecomedicine,
Medical University of Plovdiv, Bulgaria
Phone: +359 878 405 947
E-mail: elka_toseva@abv.bg

Abstract: *We aimed to analyze the level of public awareness on the harmful health effects from the traffic-related air pollution in Plovdiv. An anonymous questionnaire survey has conducted among the parents of 659 children. Air pollution data has obtained from the national and regional monitoring system of air quality. Average of annual concentrations of dust (PM10 and PM2.5) exceeded the Bulgarian`s regulated levels in the studied period. Most polluted was found to be the Central suburb, while the West suburb was less polluted. 64.8% of respondents have suffering from the traffic noise and 19.3% of respondents have feelling the car`s exhaust gases in their home. 59.4% of respondents have thought to know about the negative health effects of traffic-related air pollution. More informed parents about harmful health effects of traffic pollution among their children, take action to home protection (window isolation, soundproofing, renovation of buildings, etc.)–precondition for decrease of morbidity of their children.*

Keywords: *Traffic-Related Urban Air Pollution, Health Effects, Plovdiv, Children Illness*

JEL Codes: I 10, I 12

REFERENCES

Anna Lindgren, Emilie Stroh, Jonas Björk and Kristina Jakobsson. Asthma incidence in children growing up close to traffic: a registry-based birth cohort, Environmental Health 2013, 12:91. Available at: https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-12-91. (Accessed on 16.07.2018).

Brunekreef, B., Holgate, S.T. (2002). Air pollution and health. Lancet, 360(9341), pp. 1233-1242.

 Copyrights© http://conf.uni-ruse.bg

Darrow, L.A., Klein, M., Flanders, W.D., Mulholland, J.A., Tolbert, P.E., Strickland, M.J. (2014). Air pollution and acute respiratory infections among children 0-4 years of age: an 18-year time-series study. Am J Epidemiol., 180(10), pp. 968-977.

Dzhambov, A.M., Dimitrova, D.D. (2016). Exposures to road traffic, noise, and air pollution as risk factors for type 2 diabetes: A feasibility study in Bulgaria. Noise & Health, 18(82), pp. 133-142.

Gauderman, W.J., Urman, R., Avol, E., Berhane, K., McConnell, R., Rappaport, E., Chang, R., Lurmann, F., Gilliland, F. (2015). Association of improved air quality with lung development in children. N Engl J Med, 372(10), pp. 905-913.

Gehring, U., Wijga, A.H., Brauer, M., Fischer, P., de Jongste, J.C., Kerkhof, M., Oldenwening, M., Smit, H.A., Brunekreef, B. (2010). Traffic-related air pollution and the development of asthma and allergies during the first 8 years of life. Am J Respir Crit Care Med., 181(6), pp. 596-603.

Jung, D.Y., Leem, J.H., Kim, H.C., Kim, J.H., Hwang, S.S., Lee, J.Y., Kim, B.J., Hong, Y.C., Hong, S.J., Kwon, H.J. (2015). Effect of traffic-related air pollution on allergic disease: Result of the children's health and environmental research. Allergy Asthma Immunol Res, 7(4), pp. 359-366.

Kim, J.J., Smorodinsky, S., Lipsett, M., Singer, B.C., Hodgson, A.T., Ostro, B. (2004). Traffic-related air pollution near busy roads: the East Bay Children's Respiratory Health Study. American Journal of Respiratory and Critical Care Medicine, 170(5), pp. 520-526.

Liu, M.M., Zhao, D.W.Y., Liu, Y.Q., Huang, M.M., Liu, Y., Sun, J., Ren, W.H., Zhao, Y.D., He, Q.C., Dong, G.H. (2013). Effects of Outdoor and Indoor Air Pollution on Respiratory Health of Chinese Children from 50 Kindergartens. Journal of Epidemiology, 23(4), pp.280-287.

Nordling, E., Berglind, N., Melén, E., Emenius, G., Hallberg, J., Nyberg, F., Pershagen, G., Svartengren, M., Wickman, M., Bellander, T. (2008). Traffic-related air pollution and childhood respiratory symptoms, function and allergies. Epidemiology, 19(3), pp. 401-408.

Obshtina Plovdiv. (2011) Aktualizathiya na programata za podobryavane na kachestvoto na atmosferniya vazduh na teritoriyata na Obshtina Plovdiv 2003-2010 i izgotvyane na Plan za deistvie za perioda 2011-2013. Plovdiv: Obshtina Plovdiv. Available at: http://www.plovdiv.bg/-wp-content/uploads/okolna-sreda/normativni-dokumenti/Programa_Plovdiv_Coreccii.pdf (Accessed on 04.06.2018).

Obshtina Plovdiv. (2014). Obshtina Plovdiv. Programa za dostigane na normativnite niva za fini prahovi chastitsi pod 2,5 mikrona (FPCH2,5) i politsiclichni aromatni vaglevodorodi (PAV) v atmosferniya vazdux na teritoriyata na Obshtina Plovdiv s Plan za deystvie za perioda 2014-2015 g. Plovdiv: Obshtina Plovdiv. Available at: file:///D:/Downloads/Program_AQ_PM25PAH_-Pd_2014_2015_sled_stanov_MOSW__Obst_Pv.pdf. (Accessed on 04.06.2018).

Oosterlee, A., Drijver, M., Lebret, E., Brunekreef, B. (1996). Chronic respiratory symptoms in children and adults living along streets with high traffic density, Occupational and Environmental Medicine, 53, pp. 241-247. Available at: https://oem.bmj.com/content/oemed-/53/4/241.full.pdf. (Accessed on 16.07.2018).

Pan, G., Zhang, S., Feng, Y., Takahashi, K., Kagawa, J., Yu, L., Wang, P., Liu, M., Liu, Q., Hou, S., Pan, B., Li, J. (2010). Air pollution and children's respiratory symptoms in six cities of Northern China. Respiratory Medicine, 104(12), Pages 1903–1911.

RIOSV-Plovdiv. (2014). Regionalen doklad za cactoyanieto na okolnata sreda prez 2013 godina. Available at: http://plovdiv.riosv.com/files/godishni_dokladi/godishen_doklad_2013.pdf. (Accessed on 04.06.2018).

Shirinde, J., Wichmann, J., Voyi, K. (2015). Allergic rhinitis, rhinoconjunctivitis and hayfever symptoms among children are associated with frequency of truck traffic near residences: a cross sectional study. Environmental Health, 14, 84. Available at: https://www.ncbi.nlm.nih.-gov/pmc/articles/PMC4620607/. (Accessed on 11.07.2018).

Tétreault, L.F., Perron, S., Smargiassi, A. (2013). Cardiovascular health, traffic-related air pollution and noise: are associations mutually confounded? A systematic review. Int J Public Health, 58(5), pp. 649–666.

WHO. (2005). Effects of air pollution on children's health and development. A reiew of evidence. Copenhagen: Centraltrykkeriet-Skive A/S. Available at: http://www.euro.who.int-/__data/assets/pdf_file/0010/74728/E86575.pdf. (Accessed on 11.06.2018).

WHO. (2005). WHO air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide. Global update 2005. Summary of risk assessment. Geneva: WHO Press, Available at: http://apps.who.int/iris/handle/10665/69477. (Accessed on 16.07.2018).

WHO. (2017). World health statistics 2017: monitoring health for the SDGs, Sustainable Development Goals. Geneva: WHO Document Production Services. Available at: http://-www.who.int/gho/publications/world_health_statistics/2017/EN_WHS2017_TOC.pdf. (Accessed on 06.06.2018).

FRI-K.201-1-HP-05

CONTEMPORARY ASPECTS OF KINESITHERAPY IN PARKINSON'S DISEASE

Chief Assist. Prof. Aleksandar Andreev, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
E-mail: aandreev@uni-ruse.bg

Chief Assist. Prof. Yuliana Pashkunova, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
E-mail: ypashkunova@uni-ruse.bg

Assoc. Prof. Kiril Panayotov, PhD , MD
Department of Health Care,
University of Ruse "Angel Kanchev"
E-mail: zkm@abv.bg

Abstract: *The Parcinson´s disease can be well-influenced by physiotherapy. When directly applied and as a co-treatment, the progressive path can be delayed and patients' functional performance may be improved. This requires a good knowledge of the clinical pictures in different forms and the application of an adequate set of methods. This article reveals various contemporary aspects of the kinesitherapy in the treatment of Parkinson's disease.*

Keywords*: Parkinson's Disease, Physiotherapy*

JEL Codes: *I12*

REFERENCES

Hauser R., Pahwa R., Lyons K. et al.,Parkinson disease www.emedicine.com

Lyubenova, D., Kineziterapia pri nervni I psihichni bolesti, Sofia, 2012, (***Оригинално заглавие:*** *Любенова, Д. Кинезитерапия при нервни и психични болести, София, 2012*)

Milanov, I., Nevrologia, Meditsina I Fizkultura, Sofia, 2012

Nevrologia, I.Milanov/ red, Meditsina I Fizkultura, Sofia, 2012 (***Оригинално заглавие:*** *Неврология, И. Миланов/ред, Медицина и физкултура, София, 2012*)

 Copyrights© http://conf.uni-ruse.bg

FRI-K.201-1-HP-06

MASSAGE APPLIED IN BELL'S PALSY

Chief Assist. Prof. Yuliana Pashkunova, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Phone: 0889/255301
E-mail: ypashkunova@uni-ruse.bg

Chief Assist. Prof. Alexandar Andreev, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Tel: 0889/821483
E-mail: aandreev@uni-ruse.bg

Abstract: *In the complex treatment of neurologically ill patients, massage plays an important role. It aims at regulating the excitement-sustaining processes, trophics improvement, acceleration of regeneration, analgesia, restoration of function, etc. It is especially necessary for diseases of the peripheral nervous system. In neuritis of the facial nerve* (*Bell's palsy*)*, the massage aims to affect the reflexogenic areas of the head, neck and to tone up the mimic muscles of the affected side.*

Keywords: *Massage, Neuritis, Facial Nerve, Paralysis.*

JEL Codes*: I 12*

REFERENCES

Bankov, St., Krasteva ,V. & Vadgarov, Q. (1987). Manualno-muskulno testuvane s osnovi na kineziologiqta I patokineziologiqta. Sofia: Izdatelstvo „Medicina I fizcultura"

Kraev, T. (2007). Uchebnik po lecheben masaj /specialna chast/ Sofia: Izdatelstvo „Ersid"

Mindova, S. (2015). Kinesiterapia pri nervni I psixichni bolesti. Ruse: Izdatelstvo „Rusenski universitet „Angel Kunchev"

Sokolov, B., & Milcheva, D., (1991). Lechebna fizkultura pri nervni I pri detski zabolqvaniq. Sofia: Izdatelstvo „NSA"

FRI-K.201-1-HP-07

ASSESSMENT TOOLS OF THE ACTIVITIES OF DAILY LIVING IN PEDIATRIC OCCUPATIONAL THERAPY

Assist. Prof. Elitsa Velikova
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Tel.: +359 883 334 857
E-mail: egvelikova@uni-ruse.bg

Assoc. Prof. Petya Mincheva, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Tel.: +359 886 439 086
E-mail: pmincheva@uni-ruse.bg

Abstract: *Activities of Daily Living (ADL) are among the first achievements in childhood, and provide a sense of independence and social approval for the child. Within the past, professionals in the fields of rehabilitation and occupational therapy have developed universal assessments to measure the outcomes of the ADLs. In the occupational therapy, there are few functional outcome measures appropriate for use with children. When a measure is selected, it is important to know what exactly the therapist would like to assess, and whether the instrument assesses the client's needs. Identifying the purpose of an assessment is important because a measure that is suitable for one purpose may not necessarily be suitable for others. Several measures related to ADL skills are used in Bulgaria, and possible choices will be described. The paper will also address the need to introduce new assessment tools focusing on the child's activities and occupational performance.*

Keywords: *Pediatric Occupational Therapy, Assessment Tools, Activities of Daily Living, Occupational Performance*

JEL Codes: I 12, I 20

REFERENCES

Berg, M., Frey Frøslie K, Hussain A. (2003) Applicability of pediatric evaluation of disability inventory in Norway, Scandinavian Journal of Occupational Therapy 2003

Berg, M. (2008) Norwegian validation of the pediatric evaluation of disability inventory (PEDI), Series of dissertations submitted to the Faculty of Medicine, University of Oslo No. 600

Case-Smith, J. (2001). Occupational Therapy for Children, Fourth edition, A Harcourt Health Sciences Company 2001

Mincheva, P. (2018). Ergoterapiya v pediatriyata. Ruse: Izdatelstvo „Rusenski universitet" (***Оригинално заглавие:*** *Минчева, П., 2018. Ерготерапия в педиатрията. Русе: Издателство „Русенски университет"*)

Wassenberg-Severijnen J, Custers J, Hox J, Vermeer A, Helders P. (2003). Reliability of the Dutch pediatric evaluation of disability inventory (PEDI), Clin Rehabil

 Copyrights© http://conf.uni-ruse.bg

FRI-K.201-1-HP-08

ASPECTS OF OCCUPATIONAL THERAPY ASSESSMENT IN NEUROREHABILITATION

Assoc. Prof. Petya Mincheva
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Tel.: +359 883 334 857
E-mail: egvelikova@uni-ruse.bg

Assist. Prof. Elitsa Velikova
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Tel.: +359 883 334 857
E-mail: egvelikova@uni-ruse.bg

Abstract: *The paper reviews aspects and characteristics of occupational therapy assessment in neurorehabilitation. In the process of primary evaluation, occupational therapist is interested of the impact of neurological conditons on client's occupational performance. The focus of the assessment is on quality of life, participation in meaningful occupations and functional problems in performing self-care, leasure and productive activities. Some assessment instruments obtain information about general health and level of independence, while others are specific in assessing performance of tasks or abilities. In this article, we give some examples of the information from different assessment tools used by occupational therapists for people with neurological impairments. The information is a solid base for planning and implementaion of occupational therapy interventions.*

Keywords: *Neurorehabilitation, Occupational Therapy, Assessment Tools*

JEL Codes: *I 12, I 20*

REFERENCES

Barnes M. & Radermacher H. (2003). Community Rehabilitation in Neurology, Cambridge University Press

Bilbaoa A. et al (2003), The ICF: Applications of the WHO model of functioning, disability and health to brain injury rehabilitation, Neurorehabilitation, vol. 18, no. 3, pp. 239-250 URL: https://pdfs.semanticscholar.org/7e20/9f5f6b4790627366fa35b96f0806232cff9a.pdf (Accessed on 16.09.2018)

Curtin M. & Molineux M. (2010). Occupational Therapy and Physical Dysfunction, Enabling occupation, 6th edition, Elsevier

Edmans J. (Editor), (2011). Occupational Therapy and Stroke, 2nd Edition, Wiley-Blackwell

Fawcett A. J. (2007). Principles of assessment and outcome measurement for occupational therapists and physiotherapists/Theory, skills and application, John Wiley & Sons Ltd, England

Griffith K., & Stewart E. (2014). Occupational Therapy Evaluation for Adults: A Pocket Guide (Point (Lippincott Williams & Wilkins)), Second Edition

Losseff N. & Thompson A. J. (2004). Neurological Rehabilitation of Stroke, Taylor & Francis, CRC Press

FRI-K.201-1-HP-09

ASSESSING REHABILITATION AFTER STROKE

Assoc. Prof. Ivelina Stefanova, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
E-mail: istefanova@uni-ruse.bg

Abstract: *The purpose of this report is to present an overview of physical therapy tests used in stroke rehabilitation. Stroke rehabilitation involves a process where the physical therapists, the rehabilitation team and the patient have to discuss goals and what future directions might be considered in view of the stroke event and its consequences. This process often means change, a change from the life one lead before the stroke incidence to a life with a reduced function; this reduction can be varying in degree. The rehabilitation process also involves an evaluation of the clinical condition, planning of a treatment and evaluating the result of treatment.*

Keywords: *Outcomes, Assessment, Stroke.*

JEL Codes: *I 12, I 20*

REFERENCES

Canadian Stroke Best Practice Recommendations (2015). Stroke Rehabilitation Screening and Assessment Tools. CSBPR Fifth Edition.

Langhammer, B. (2014). Physical therapy tests in stroke rehabilitation.

Mindova, S., I. Stefanova, A. Varbanova (2012). Sistematisirane I optimisirane na tastove I metodi za functionalna ocenka pri uvredi na nervnata sistema kato instrument v uchebno klinichnata praktika (***Оригинално заглавие:*** *Миндова С., И. Стефанова, А. Върбанова. Систематизиране и оптимизиране на тестове и методи за функционална оценка при увреди на нервната система като инструмент в учебно клиничната практика. Научни трудове на Русенския университет, том 51, серия 8.1, Русе, 2012*)

Nationalen consensus za profilactika, diagnostika I lechenie na mozachosadovite zaboliavania (2013). Sp. Balgarska nevrologia (***Оригинално заглавие:*** Национален консенсус за профилактика, диагностика и лечение на мозъчносъдовите заболявания, сп. Българска неврология, том 14, брой 3, допълнение 1, 2013)

Petrova, N. (2015). Epidemiologia na mozacho-sadovata bolest v oblast Ruse. (***Оригинално заглавие:*** *Петрова, Н. Епидемиология на мозъчно-съдовата болест в област Русе, Научни трудове на Русенския университет, 2015, том 54, серия 8.3, с.130*)

Popov, N., D. Popova, T. Grueva (2012). Funkcionalno izsledvane I analiz v muskulno-skeletnata fizioterapia. (***Оригинално заглавие:*** *Попов, Н., Д. Попова, Т. Груева, Функционално изследване и анализ в мускулно-скелетната физиотерапия, НСА – ПРЕС, 2012*)

Stefanova, I. (2018) Rolia na kineziterapiata za dvigatelnoto vazstanovavane sled mozachen insult (***Оригинално заглавие:*** *Стефанова, Ив. Роля на кинезитерапията за двигателното възстановяване след мозъчен инсулт, Медиатех – Плевен, 2018*)

Teasell, R. at al (2013) Evidence-Based Review of Stroke Rehabilitation, Clinician's Handbook

 Copyrights© http://conf.uni-ruse.bg

FRI-K.201-1-HP-10

NEURODYNAMIC TESTS FOR FUNCTIONAL EXAMINATION OF THE SCIATIC NERVE

Assoc. Prof. Radoslava Deleva, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Tel.: +359878580696
E-mail: rdeleva@uni-ruse.bg

Assoc. Prof. Petya Parashkevova, PhD
Department of Public Health and Social Work
University of Ruse "Angel Kanchev"
Tel.: +359882898619
E-mail: pparashkevova@uni-ruse.bg

Abstract: *The mobilization of the nervous system is a conservative physiotherapeutic method for the diagnosis and treatment of pain. The term "neurodynamics" combines in one mechanism mechanical and physiological characteristics. Neurodynamics tests are nervous tension tests that lead to mechanical and physiological responses. The techniques for mobilization of the sciatic nerve improve its mobility, reduce the mechanical sensitivity of the nervous system and relieve the pain in the waist. Essential to the differential diagnosis, besides the appearance of typical nerve tissue stretching symptoms, is also the positive sensitizing (provocative) test. The purpose of this study was to determine the most appropriate sensitizing movement for locating and differentiation of lumbar pain.*

The results obtained show that a functional assessment of the sciatic nerve requires a comprehensive approach involving the examination of all sensitizing movements as well as other specific tests for the musculoskeletal system.

Keywords: *Neurodynamic Tets, Functional Examination, Sciatic Nerve, Low Back Pain*

JEL Codes: *I 12*

REFERENCES

Boyd, B.et all, (2005). Strain and excursion in the rat sciatic nerve during a modified straight leg raise are altered after traumatic nerve injury. Journal of Orthopaedic Research, 2005, 23(4):764-770.

Coppieters M. et all, (2004). The impact of neurodynamic testing on the perception of experimentally induced muscle pain, School of Health and Rehabilitation Sciences, The University of Queensland, St. Lucia, Australia Received, Elsevier Ltd. Manual Therapy, 2004

Coppieters M. et all, (2006). Strain and excursion of the sciatic, tibial, and plantar nerves during a modified straight leg raising test. Journal Orthopaedic Research, 2006, 24 (9): 1883-1889

Dimitrova E., (2016). Mobilizacia na perifernite nervi, NSA- PRES, 2016 (***Оригинално заглавие:*** *Димитрова Е., 2016. Мобилизация на периферни нерви, НСА-Прес, 2016, стр.9*)

Gencheva N., (2008). Nashiyat opit pri lechenieto na bolki v garba s Fitt-ball gimnastika, Nauchni trudove na RU, 2008, tom 47, seria5.4, 93-97 (***Оригинално заглавие:*** *Генчева Н., 2008. Нашият опит при лечението на болки в гърба с Fitt- ball гимнастика, Научни трудове на РУ, том 47, серия 5.4, 93- 97 стр.*)

Hoy, D. et all (2014). The global burden of low back pain: estimates from the Global Burden of Disease 2010 study. Ann Rheum Dis 2014;73:968–974.

Popov, N., D. Popova, T. Grueva (2012). Funkcionalno izsledvane I analiz v muskulno-skeletnata fizioterapia. (***Оригинално заглавие:*** *Попов, Н., Д. Попова, Т. Груева, Функционално изследване и анализ в мускулно-скелетната физиотерапия, НСА – ПРЕС, 2012*)

Stefanova, I. (2018) Rolia na kineziterapiata za dvigatelnoto vazstanovavane sled mozachen

insult (***Оригинално заглавие:*** *Стефанова, Ив. Роля на кинезитерапията за двигателното възстановяване след мозъчен инсулт, Медиатех – Плевен, 2018*)

Shacklock, M.(2005) Clinical neurodynamics: a new system of musculoskeletal treatment, 2005, Elsevier, Oxford, UK

Shacklock M.(2005). Improving application of neurodynamic (neural tension) testing and treatments: A message to researchers and clinicians. Manual Therapy, 2005,10: 175–179

Teasell, R. at al (2013) Evidence-Based Review of Stroke Rehabilitation, Clinician's Handbook

Ui-Cheol Jeong, MS et all, 2016. The effects of self-mobilization techniques for the sciatic nerves on physical functions and health of low back pain patients with lower limb radiating pain. J. Phys. Ther. Sci. 2016, 28: 46–50.

FRI-K.201-1-HP-11

TELEMEDICINE IN THE CONTEXT OF LOW-BUDGET HEALTHCARE

Konstantin Georgiev, MD
ORL Department MBAT MMA Varna
“Chr. Smirnenski” 3 str. Varna, Bulgaria
Tel.: ++359888253734
E-mail: drkgeorgiev@abv.bg

Assoc. Prof. Dimitar Stavrev, PhD
Medical University Varna

Georgi Kukushev, PhD
ORL Clinic MMA Sofia
Georgi Sofijski 3 str Sofia

Prof. Vencislav Cvetkov, PhD
ORL Clinic MMA Sofia
Georgi Sofijski 3 str Sofia

Prof. Cristo Bozov , PhD
Clinic of Anesthesiology and Hyperbaric medicine, MBAT MMA Varna
Burgas Free University
“Chr. Smirnenski” 3 str. Varna, Bulgaria

Prof. Ivajlo Vazharov, PhD
Director MBAT MMA Varna
“Chr. Smirnenski” 3 str. Varna, Bulgaria

Abstract: *The concept of telemedicine is introduced by R. Mark in 1974. It regards a series of telecommunication and information technique, that can be applied in health care.*

A telemedicine bridge is effective when three basic criteria are met:

- *The information should be objective, exact and on time;*
- *The price of the information transfer should not exceed the overall budget of the therapy;*
- *The existing legislation should be followed, especially the regulations, regarding personal data protection.*

Otorhinolaryngology is very suitable for the application of telemedicine bridges, because of the wide use of endoscopic and microscopic examinations, and other tests which present the results digitally and graphically.

 Copyrights© http://conf.uni-ruse.bg

ORL Clinic MMA Sofia and ORL Department MBAT MMA Varna are developing a system for the exchange of medical information. The main tasks are direct consultation during the diagnostics and treatment, as well as preliminary planning and preparation of patients, who need to be treated in both units. This kind of planning allows for the optimization of the time and financial resources for travel, examinations and treatment.

Keywords: *Telemedicine Otolaryngology, Low-Cost Health Care*

JEL Codes: *I 10, I 20*

REFERENCES

Aaron M. Williams, Umar F. Bhatti, Hasan B. Alam, and Vahagn C. Nikolian The role of telemedicine in postoperative care Mhealth. 2018; 4: 11. PMCID: PMC5994447 PMID: 29963556

Latifi R, Mora F, Bekteshi F, Rivera R. Preoperative telemedicine evaluation of surgical mission patients: should we use it routinely? Bull Am Coll Surg. 2014 Jan;99(1):17-23.

Mariano E. Time to rethink preoperative preparation http://www.edmariano.com /archives/652

Vinarova, J. (2002). Uchebnik po telemedizina: Rechnik po telemedizina za standarti, kontzeptzii, tehnologii i potrebiteli.

FRI-K.201-1-HP-12

DR. STOYKO YORDANOV AND THE FIRST ATTEMPT TO ESTABLISH A BULGARIAN MEDICAL ORGANIZATION

Assoc. Prof. Dimitar Stavrev, MD, PhD
Department of Public Health and Social Work
University of Ruse “Angel Kanchev”
Phone: 052-677-192
E-mail: morskamedicina@abv.bg

Abstract: *Dr. Stoyko Yordanov Gaev was born on August 15, 1841, in the town of Kotel. He studied medicine at the Military Medical School in Bucharest from 1863 to 1867. In 1876 he defended his thesis: Quelques reflexions et observations sur l’engine diphterique, Paris, 1876. Dr. Stoyko Yuddanov participated in the establishment of the Romanian Red Cross. A medical brigade led by him took part in the Serbian-Turkish war in 1876. Dr. Stoyko Yordanov, as a regimental and brigaded physician in the Romanian army, took an active part in the Russo-Turkish from 1877-1878. On March 12, 1878, Turno Severin prepared a letter to Dr. Ivan Slavkov, a physician from Tarnovo, calling for the establishment of a national medical company. Dr. Stoiko Yordanov enumerates 18 of his associates doctors. In the newspaper " Slavyanin", published in Rousse, he publishes a draft statute of the company called " Bŭlgarska meditsinska druzhba".*

Keywords: *History of Medicine, Rousse, Medical Organization*

JEL Codes: *I 10*

REFERENCES

Carol Davila, The doctor who transformed the Romanian medical education. DISCOVER ROMANIA , Bucharest Centennial, https://www.romania-insider.com, 14 Jun 2018

Dryanovski B. Istoriya na Varnenskata chervenokraska organizatsiya. Varna 2015: 9-10

Feldshersko uchilishte va Varna. Svobodna Balgariya, God. I., br. 3., 31 I. Varna 1881: 3

Georgiev, B.M. Parvoto balgarsko meditsinsko druzhestvo. Priroda, kn. 4,Sofiya 1955

G-nu Avramovu! Balgarin, № 187-188, 30 avgust 1879.

Ivanov Yu. Balgarskii periodicheski pechat 0t vazrazhdaneto mu do dnes (1844-1890 g.).

Tom I. Sofiya 1893: 398-399

Izrael S., V. Ganeva. Stoyko Yordanov /15.VIII.1844 - 18.1.1890/ Balgarski zdravni rabotnitsi, uchastnitsi v borbite na nashiya i drugi narodi za osvobozhdenie ot osmansko igo (BIOBIBLIOGRAFIYA), Tsentralen dom na kulturata na zdravnite rabotnitsi, Sofiya 1976: 26

Jordanoff St. Quelques reflexions et observations sur fangine diphtheritique. Paris, 1876. (Докторска теза: Някои размишления и наблюдения върху дифтеритната ангина). Varna i Varnenskiy gubernator. - Balgarin, № 121, 7 yanuari 1879.

Kolarov N. Parvoto meditsinsko druzhestvo v Balgariya. ISTORICHESKA PANORAMA, Dom na kulturata na zdravnite rabotnitsi, Kabinet po istoriya, Sofiya 1978: 97-105

Konstantinesku-Yash P. Balgari ucheni v Rumaniya ot vremeto na natsionalno-revolyutsionnite dvizheniya- Izvestiya na Inst. Hr. Botev, KN. I, BAN 1954 g., str. 82-96

Minev D. Altanla Stoyan voyvoda. Revolyutsionna drama ot 1886 g. Ezik i literatura, god. II. Sofiya 1947 : 43-47.

Minev D. Parviyat pochin za organizirane na lekarite v Balgariya I , prez 1878 god. Savremenna meditsina god. XIX, kn. 11, Sofiya 1968, str. 942-945

Mirski Kr. D-r Stoyko Yordanov. Varnenski otziv, God. 1, br. 14 (118), pech. Dobri Todorov, Varna 1915, 20 yanuari, str. 1

Nedyalkov Al. Varnensko meditsinsko druzhestvo (po povoda 25 godishninata ota negovoto osnovanie). Balkana, Sofiya 1910: 49-51

Nedyalkov Al. Varnenskoto meditsinsko druzhestvo - rodonachalnik na B.L.S. Meditsinski letopisi, Sofiya 1948, kn. 10

Petkova M., N. Aleksandrov Prinosat na balgarskite lekari-masoni v zdraveopazvaneto na balkanskite strani do osvobozhdenieto. OTVES 2005, http://otves.org/bg/index.php?option=-com_content&task=view&id=194

Pobratime Slavkov (pismo). Darzhaven arhiv – Varna, CHP 222, l. 71.

Rusev M. Yubileyna kniga. Istoricheski pregled na meditsinskata chasty i meditsinskata knizhnina v Balgariya (15.VIII.1878-15.VIII.1903). K.Chinkov, Sofiya 1903: 192

Spomeni za Uchreditelnoto sabranie. Tarnovo 1879, rakopis. Palen tekst v statiyata na D. Minev Spomeni za parvoto Veliko narodno sabranie. - Rodina, god. Ill, 1940, № II i v knigata Spomeni za Uchreditelnoto sabranie ot 1879 g. Sast. E. Statelova i 3. Markova. OF, Sofiya 1979.

Stoynova K. D-r Stoyko Yurdanov - pobornik i prosvetitel. Kolor Print, Varna 2010, str. 152

Varnenskiy obshtinskiy vestnika. God. III. br. 4.(39), 28 yanuariy 1890 g. str. 1

Yordanov Ganev, S.. Balgarska vazrozhdenska inteligentsiya. Uchiteli, sveshtennitsi, monasi, visshi duhovnitsi, hudozhnitsi, lekari, aptekari, pisateli, izdateli, knizhari, targovtsi, voenni …, Entsiklopediya, izd. Petar Beron, Sofiya 1988: 299(735)

Yurdanova S. OREILLONS (Zaushnitsi ili svinki). - Meditsinsko spisanie, god. I, Varna br.2, 1 avgust 1885: 69-71

Yurdanova S. Dopiska po obshtite ni sanitarni raboti. - Vitosha, № 9, 27 yuni 1879.

Yurdanova S. Za holerata. - Slavyanina, № 22, 30 avgust 1883: 86

Yurdanova S. Za holerata. - Meditsinsko spisanie, № 5, 10 dekemvri 1886: 72-80

Yurdanova S. Za chistotata v voyskata. - Meditsinsko spisanie, № 7b, 10 april Varna 1886

Yurdanova S. Za chistotata na cheloveka i zhilishtetomu. Meditsinsko spisanie, god I, 1885-1886, № 4, 5 i 6

Yurdanova S. Mnogobroyni otrovvaniya ot morski midi. – Meditsinsko spisanie, god I, № 7a, 1 april, Varna 1886: 314-318

Yurdanova S. Nuzhdae li se balgarskiya narod ot obshtestvo Cherven Krast. Slavyanina, № 48, 29 oktomvri, Ruse 1883: 189-190

Yurdanova S. Spomyany za Yuvana Teodorova narechena Kapitana. Slavyanina. Naroden lista za nauka i novini. Godina I, Broy 25. 6 Oktomvriy, Ruschuka 1879: 199

Yurdanova S. (P r e v o d) . Upotreblenie na toplata voda prez bremennostta i v vreme na razhdaneto. Meditsinsko spisanie, № 7v, 20 april, Varna 1886: 340-342

FRI-2.114-1-SW

FRI-2.114-1-SW-01

QUALITY OF SOCIAL SERVICES-THEORETICAL APPROACHES AND PRACTICAL CHALLENGES

Assoc. Prof. Lilyana Rusanova, PhD
Department of Socail and Economics scienses,
Technical University of Gabrovo
Tel.: +359 66 827 200
E-mail: lilyana.rusanova@gmail.com

Abstract: *. This theoretical article describes and discusses the concept of quality in relation to the evaluation of social-work practice. This article begins with presenting some basic perspectives on quality as well as the transference of the concept of quality in social-work practice. The quality in social-work practice is a very multifaceted phenomenon and the concept can be approached from different perspectives and with different foci. Owing to the complex character of the practice, interventions cannot be fully standardized and the effects of the interventions in peoples' lives are not always evident. We hope that this article can be useful for those who initiate, conduct, and utilize evaluations of social work. Furthermore, we hope that it can contribute to an increased consciousness about the importance of studying quality of socail services.*

Keywords*: quality, social services, standards*

JEL Codes: *I38*

REFERENCES

Beresford, P. & Croft, S. (2008).Citizen Involvement: A Practical Guide for Change. Basingstoke: Macmillan

Dahler-Larsen, P. (2008). Kvalitetens beskaffenhed [The nature of quality]. Odense: Syddansk universitetsforlag

Cheetham, J & Fuller, R. (1995) Evaluating Social Work Ehhectiveness. Buckingam: Open University Press

Gartner, A & Reissman F (1974). The service society and the consumer vanguard. New York, Harper &Row 221-222

Frank, J. D. & Frank, J. B. (1991). Persuasion and Healing: A Comparative Study of Psychotherapy. Baltimore: The John Hopkins University Press.

Kauppi, H. (2004). Evaluating the longer-term of employment strategy promotion of expertise, tools and methods for longer-term evaluation of an employment strategy. Helsinki

Knei-Paz, C. (2009). The Central Role of the Therapeutic Bond in a Social Agency Setting: Clients' and Social Workers' Perceptions. Journal of Social Work, 9(2),178-198.

Lumijärvi. I.(1999). Expert interviews Hallintotieteen laitosp 212-223

Miller, W. R. & Rollnick, S. (1991). Motivational Interviewing. Preparing People to Change Addictive Behaviour, New York, The Guilford Press.

Milton, P. (2006). Arbete i stället för bidrag? Om aktiveringskraven i socialtjänsten ocheffekten för de arbetslösa bidragstagarna [Work instead of benefits? On the demand for activation in the social services and the effect on the unemployed receivers of benefits]. Akademisk avhandling, Uppsala universitet.

Pawson, R., & Tilley, N. (1997). Realistic evaluation. Thousand Oaks: Sage.

Roberts, A. R., & Yeager, K. R. (Eds.). (2004). Evidence-based practice manual. Oxford: Oxford University Press.

Sinclair, Q.(2008). Perspectivata na kachestveniq control. Antologia na socialnata rabota, Sofia, 2008, pp. 465-468

Stake, R. E. & Schwandt, T. A. (2006). On discerning quality in evaluation. In I. F.Shaw, J. C. Greene & M. M. Mark (Eds.) The Sage Handbook of Evaluation. pp.404-418. London: Sage

Vornanen R., Polkki P., Pohjanpalo H. & Miettinen J. (2011) The possibilities for effective child protection – The Finnish research perspective, ERIS web journal, 1, 14-20.

FRI-2.114-1-SW-02

UNLAWFUL BEHAVIOUR OF ADOLESCENTS – SOCIAL AND PSYCHOLOGICAL ASPECTS

Assoc. Prof. Ivanka Stoyanova-Todorova, PhD
Department of Social and Economic Sciences,
Technical University of Gabrovo
Tel.: 066 827 327
E-mail: vantod61@abv.bg

Abstract: *The paper presents the problem of deviant behavior of adolescents in modern society where violence is becoming a common way of resolving conflicts, and aggression – a means of imposing respect. The criminogenic factors influencing the formation of the juvenile personality are analyzed: macrosocial – the value crisis in society as a whole, as well as the economic conditions, the media environment, etc., and microsocial factors – family, school, reference environment, etc. Statistical data on the dynamics of juvenile delinquency in the country and in Gabrovo region are presented. Guidelines for prevention of violence among adolescents through programs at national and international level are outlined.*

Keywords: *aggression, violence, unlawful behaviour, criminogenic factors, children pedagogical rooms, prevention*

JEL Codes: *I3, J71, J78*

REFERENCES

Anzova, D. Riskovi kriminogenni faktori pri nepalnoletnite pravonarushiteli – klasifikatsia i vzaimodeystvie. YUZU “N. Rilski”, Blagoevgrad, 2014.

Campbell, A. Men, women, and aggression. New York, 1993.

Doklad na NSI: Protivoobshtestveni proyavi i prestaplenia na maloletnite i nepalnoletnite litsa prez 2017 godina.

Konventsiya za pravata na deteto. Prieta ot OS na OON na 20.11.1989 god. Ratifitsirana s reshenie na VNS ot 11.04.1991 god. – DV, br. 32 ot 23.04.1991 godina.

Minev, T. Protivoobshtestvenoto povedenie na yunoshite v savremennia obnovyavasht se svyat, S. 2001.

Natsionalna nauchno-prakticheska konferentsia “Agresiyata v uchilishte, na ulitsata i v internet”. Asenovgrad, 2017.

Petrov, G. Detska prestapnost. Sofia, 2000.

Pushkarova, I., G. Petrunov, G. Kirilov. Riskovi kriminogenni i viktimogenni faktori pri detsata. Sofia, 2009-2010.

Pravilnik za Detskite pedagogicheski stai. Obn. DV br. 92 ot 07.08.1998 g.

Stamatov, R. Detskata agresia. IK Hermes. S. 2008.

Semeen kodeks. Obn. DV br. 47 ot 23.06.2009 g., Izm. i dop. DV br. 103 ot 28.12.2017 g.

Strategia za preventsia na prestapnostta (2012-2020), prieta s Reshenie № 325 na MS ot 25.04.2012 g.

Tsanov, K. Privlekatelnost na kompyutarnite igri i vliyanieto im varhu povedenieto v yunosheska vazrast. Psihologichni izsledvania, 2005, No 3, 267 –273.

Zakon za zakrila na deteto. Obn. DV br. 48 ot 13.06.2000 g., Izm. DV br.17 ot 23.02.2018g.

http://www.nsi.bg

https://www.gabrovo.bg/bg/page/1093

 Copyrights© http://conf.uni-ruse.bg

FRI-2.114-1-SW-03

EFFICIENCY AND EFFECTIVENESS OF APPLICATION OF SPECIAL SEISMIC PROTECTION METHODS

Assist. Prof. Plamen Kolev
Department of Social and economics scienses,
Technical University of Gabrovo
Tel.: 0899274607
E-mail: rex_77@abv.bg

Abstract: *In 2016, with the updated Action Plan for the National Strategy "Vision for Deinstitutionalization of Children in the Republic of Bulgaria", measures were put in place, part of which aimed at the sustainable development of the social infrastructure for children and youth and the gradual closure of the medical institutions - social care for children. Other measures are aimed at expanding coverage and access to accompanying social, healthcare or educational services for residential-type residential customers - Family Type Placement Centers. The focus of the priorities is complex care for disabled children and young people by providing integrated health and social services, increasing the efficiency of the system and completing the necessary social infrastructure for services for children and young people.*

Keywords: *Social care, Children, Young people, Social services, Family Type Placement Centers.*

JEL Codes: *L10, L11*

REFERENCES

Aktualiziran plan za deistvie na Nacionalna strategiq "Viziq za deinstitucionalizaciq na decata v Bulgaria" (***Оригинално заглавие:*** Актуализиран план за действие към Националната стратегия „Визия за деинституционализация на децата в Р. България")

Dimitrova, S, D. Trifonova, A. Delova, A. Aleksieva, M. Delmartino. Standarti I control na socialnite uslugi v Europa, Sravnitelno-praven analiz, Sofia 2004. (***Оригинално заглавие:*** *Димитрова, С., Д. Трифонова,. А.Делова, А. Алексиева, М. Делмартино. Стандарти и контрол на социалните услуги в Европа: Сравнителноправен анализ. София, 2004.*)

Nacionalna strategiq "Viziq za deinstitucionalizaciq na decata v Bulgaria", prieta s protocol 8.2. na Ministerski savet ot 24.02.2010 (***Оригинално заглавие:*** *Национална стратегия „Визия за деинституционализация на децата в Република България" приета с Протокол № 8.2 на Министерския съвет от 24.02.2010 г.*)

Otsheti za deinostta na Agenciq za socialno podpomagane za 2013-2017g. MTSP, Sofia (***Оригинално заглавие:*** Отчети за дейността на Агенцията за социално подпомагане за 2013 - 2017 г. *МТСП, София http://www.asp.government.bg/web/guest/godisen-otcet*)

Pravilnik za prilagane na zakona za socialno podpomagane (***Оригинално заглавие:*** *Правилник за прилагане на закона за социално подпомагане Обн. ДВ. бр.133 от 11 Ноември 1998г. изм. ДВ. бр.17 от 21 Февруари 2017г.*)

Reshenie za dostap do obstestvena informaciq na ASP № RD 04-0092/06.07.2018g. (***Оригинално заглавие:*** Решение за достъп до обществена информация на АСП № РД 04-0092/06.07.2018г.)

Zakon za socialno podpomagane (***Оригинално заглавие:*** *Закон за социално подпомагане Обн., ДВ, бр. 56 от 19.05.1998 г. изм. и доп., бр. 8 от 29.01.2016 г.*).

FRI-2.114-1-SW-04

STUDY OF SOCIAL RELATIONSHIPS AS A COMPONENT OF QUALITY OF LIFE IN CLIENTS WITH ONCOLOGICAL DISEASES OF WORKING AGE

Assist. Prof. Evgeniya Bratoeva
Department of Public Health and Social Work,
University of Ruse "Angel Kanchev"
Phone: 0887 243807
E-mail: ebratoeva@uni-ruse.bg

Abstract: *Despite significant advances and the modernization of medical science over the last decades, oncological diseases continue to show an increase in growth. In recent years there has been a tendency to reduce the age of newly registered persons. The purpose of this report is to present the results of a survey of clients with oncological diseases about how the disease affects one of the components of quality of life - social relations. The report presents results from long-term personal observations and a four-month study after individuals in the age group 35-60 years.*

Keywords: *social work, quality of life, oncological disease*

Jel code: *I14, I31*

REFERENCES

The World Health Organization Quality of Life Assessment (WHOQOL): Posicion paper from World Health Organization (1995) Soc Sci Med, 41, 1403-1409.

Todorova K., Kachestvo na zhivot, svarzano sas zdroveto-podhodi za ocenka I psihosotsialni aspekti pri epilepsiya, Slavena,2015, 28-34.

Vankova D., Kachestvo na zhivot, svarzano sas zdroveto. Sotsialna meditsina,1, 2010., 6-9.

 Copyrights© http://conf.uni-ruse.bg

FRI-2.114-1-SW-05

EXTRACURRICULAR CLUB FORMS OF ACTIVITY OF SOCIAL WORK STUDENTS AND FORMATION OF POSITIVE ATTITUDES TOWARDS PEOPLE OF DIFFERENT ETHNIC BACKGROUND

Assoc. Prof. Sasho Nunev, DSc of SW
Department of Public Health and Social Work,
University of Ruse "Angel Kanchev", Bulgaria
Tel.: +359 886 802 466
E-mail: sasho_nunev@abv.bg

Abstract: *The article presents the conceptual, content and functional aspects of club forms of extracurricular club forms activity of social work students, representing innovative, scientifically justified, empirically validated and characterized by the formation of sensitivity to differences in an interactive educational and informational environment. Through a conducted research their contribution for the formation of positive and non-discriminatory attitudes of social work students towards people of different ethnic background in the context of interactions in different formal and informal interpersonal systems and with a focus on promoting their development in educational, professional and social aspects is revealed.*

Keywords: *Extracurricular Club Forms of Activity, Positive Attitudes towards People of Different Ethnic Background, Ethnic Climate, Educational and Information Environment, Interaction in Interpersonal Systems*
JEL Codes: *I21, I23, I24*

REFERENCES

Aberson, C. L., Haag, S. C. (2007). Contact, perspective taking, and anxiety as predictors of stereotype endorsement, explicit attitudes, and implicit attitudes. Group Processes and Intergroup Relations, 10, 179–201.

Allport, G. W. (1954). The nature of prejudice. Cambridge, MA: Perseus Books.

Antonak, R. (1992). Scale of Attitudes Toward Disabled Persons (SAPD) Form R. Durham, NH: University of New Hampshire.

European Association of Schools of Social Work, News. Posters from World Social Work Day 2018. https://www.eassw.org/posters-from-world-social-work-day-2018/

European Association of Schools of Social Work, News. Regional forum with international participation for good educational and professional practices on social work in University of Ruse (2018). https://www.eassw.org/regional-forum-with-international-participation-for-good-educational-and-professional-practices-on-social-work-in-university-of-ruse/

European Association of Schools of Social Work, News. Video greetings for World Social Work Day 2018. https://www.eassw.org/video-greetings-for-world-social-work-day-2018/

European Observatory Report 2016: Promoting the dignity and worth of people. Good Examples from European Social Work. European Observatory of the Global Agenda for Social Work and Social development.

Global Agenda for Social Work and Social Development: Second Report. International Federation of Social Workers, 2016, Berne, Switzerland.

Hewstone, M., Swart, H. (2011). Fifty-odd years of inter-group contact: From hypothesis to integrated theory. British Journal of Social Psychology, 50 (3), 374-386.

International Federation of Social Workers (2012). Global standards. Global Standards for the Education and Training of the Social Work Profession, 3 March 2012. Retrieved from http://ifsw.org/policies/global-standards/

Nunev. S. (2012). Anti-discrimination education model in the professional field of „Social

activities“. International scientific on-line journal “Science & Technologies”. Vol. II; N 7: Social studies. Publisher „Union of Scientists – Stara Zagora“.

Pettigrew, T. F., Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. European Journal of Social Psychology, 38 (6), 922-934.

Pike, C. K. (2002). Measuring racial climate in schools of social work: Instrument development and validation. Research on Social Work Practice, 12(1). 29-46.

Tausch, N., Hewstone, M. (2010). Intergroup contact and prejudice. In J. F. Dovidio, M. Hewstone, P. Glick, V. M. Esses (Eds.). The Sage handbook of prejudice, stereotyping, and discrimination (pp. 544–560). Newburg Park, CA: Sage.

Vonofakou, C., Hewstone, M. & Voci, A. (2007). Contact with outgroup friends as a predictor of meta-attitudinal strength and accessibility of attitudes towards gay men. Journal of Personality and Social Psychology, 92, 804–820.

Whitley, B. E., Kite, M. E. (2010). The Psychology of Prejudice and Discrimination. Belmont, CA: Wadsworth.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.104-1-HC

FRI-2G.104-1-HC-01

ANALYSIS AND RISK ASSESSMENT OF "KNOWLEDGE DEFICIT" AND FACTORS ASSOCIATED WITH THE SELF-APPLICATION OF LOW-MOLECULAR FRAXIPARIN AT THE PATIENTS IN THE POSTOPERATIVE PERIOD

Mariana Bachewa, PhD
Faculty of Public health, health care and sport,
Department of Health Cares
South-West University "Neofit Rilski"
Tel.: +359 897 96 33 14
E-mail: bachewa@abv.bg
Daniela Velichkova-Hadjieva, PhD
Faculty of Public health, health care and sport,
Department of Health Cares
South-West University"Neofit Rilski"
E-mail: dani_60@abv.bg
Assoc. Prof. Rosica Doinovska, PhD
Faculty of Public health, health care and sport,
Department of Health Cares
South-West University"Neofit Rilski"
E-mail:doynovska@mail.bg

Abstract: *The article focuses on the nursingdiagnosis "Risk of ..." and the role of the deficiency of knowledge about the life and health of the patient. The study is guided by the theories of D. Orem and J. Watson and their application in the work of contemporary nurse. We studied 71 patients with various surgical interventions in need of long-term administration of low molecular weight Fraxiparine. Data on mean values and interdependencies among the different variables are presented. We have established the influence of some factors on alone to Fraxiparine in postoperative period.*

Keywords: *risk of…, knowledge deficiency, self-service, nursing interventions*

JEL Codes: *L10, L11*

REFERENCES

Ashghali-Farahani M, et al.(2009). Obstacles to patient training in CCU and post CCU: Theoretical study. Iranian Journal of Nursing; 22: 55-73.

Dumas L. (1992). The nursing process according to Orem. A concrete very simple example explains how to follow this nursing process. Can Nurse.;88(6):36-9.

Heshmati-Nabavi F, Vanaki Z.(2014). Obstacles to patient education in clinical care; Nurse views. Iranian Journal of Medical Education ; 14: 332-41.

Kalisch B. (2006).Missed nursing care: a qualitative study. J Nurs Care Qual;21(4):306-13; quiz 314-5.

Klein-Fedyshin M, et al. (2005). Collaboration to improve patient education and recovery. J Med Libr Assoc.;93(4):440-5.

Lesly D.Atkinson, Mary Ellen Murray (1995). Clinical guide to care planning: data≠ diagnosis. USA, ISBN 0-07-105466-9

Müller-Staub M. et al. (2007) Meeting the criteria of a nursing diagnosis classification: Evaluation of ICNP, ICF, NANDA and ZEFP. Int J Nurs Stud. ;44(5):702-13. Epub 2006 Mar 23

Ramezanli,S.,, Z. Jahromi (2015) Iranian Nurses' Views on Barriers and Facilitators in Patient Education: A Cross-Sectional Study.Glob J Health Sci . 2015 Sep; 7(5): 288–293.Published online 2015 Mar 16. doi: 10.5539/gjhs.v7n5p288

Schilder M. (2005). To represent needs of nursing care using nursing diagnoses: potentials and restrictions of the NANDA classification and ICNP. Pflege Z. ;58(3):2-8.

Vahedian Azimi A, et al. (2009). Barriers and Facilitators of Patient Learning: Prospects for Nurses. Iranian Journal of Medical Education. 2012; 11: 620-34.

FRI-2G.104-1-HC-02

CONFLICTS IN STUDENTS' GROUPS AND THEIR MANAGEMNT

Prof. Ivanichka Serbezova, PhD
Department of Health Care,
University of Ruse "Angel Kanchev"
Phone: 0887 082 800
E-mail:iserbezova@uni-ruse.bg

Abstract: *This scientific report examines the problem of conflicts in student groups, within the education of student midwives and student nurses. The conditions which raise conflict situations are discussed. Different variations of conflicts are described. The dynamics of a conflict situation in the student group are analyzed and the author offers a pattern for characterizing the group in order to prevent conflicts. A survey is conducted among students, educated in Ruse University "Angel Kanchev" majoring in the regulated Bachelor Programs Nurse and Midwife. Conslusionshave been drawn, pointing to the necessity of a targeted conflict management. Striving to influence matters in the direction of minimizing causes, leading to conflicts is needed. It would be useful for conflict participants to be allowed to express their personal view for the genesis of a conflict situation and to share their recommendetaions for solving it. Actions of students, taking part in the conflict have to be guided, so that they are able to preserve and restore positive relations while working on their differences and taking into consideration their own different interests. It is advised students actively participate in the search of a solution which would suit each of them. Compromising in this situation is inevitable and is grounded on mutual concessions, on a choice of a solution which satisfies each side and allows for no one to feel like the losing side. Confrontation while managing conflicts has to be avoided. Taking into consideration that the solution of a conflict has to address the causes leading to it, the autor concludes only a cooperative style of managemnt can lead to the realization of a given task. With selecting a concessional strategy in managing conflicts, their solution is possible.*

Keywords: *student groups, conflicts in the student group, nurses, midwives, group dynamics, conflict managemnt*

JEL Codes: *L10, L11*

REFERENCES

Borg, M., Kembro, J., Holmén Notander, J., Petersson, C., &Ohlsson, L. (2011). Conflict management in student groups - a teacher's perspective in higher education. Högreutbildning, 1(2), 111-124.

Pavlova, S. Profesionalna sreda i povedenie na meditsinskata sestra. Izd. Kashta STENO, MU „P. Stoyanov", Varna 2015, 58-63 (***Оригинално заглавие:*** *Павлова, Ст., 2015, Професионална среда и поведение на медицинската сестра, изд. Къща СТЕНО, МУ „П. СТоянов", Варна*)

Sharipov, F.V., Pedagogika i psihologia vыshey shkolы. Novaya universitetskaya biblioteka, Logos, Moskva 2015, 338-339 (***Оригинално заглавие:*** *Шарипов, Ф.В. 2015, Педагогика и психология вышей школы, Новоя университетская библиотека, Логос, Москва*)

Bernstad, A., Ek, M., Holmqvist, A., &Önnby, L. (2010). Free-riding inomhögreutbildning – ettstörre problem änvianat? [Free-riding in higher education - a bigger problem than we

 Copyrights© http://conf.uni-ruse.bg

expected?].6:e Pedagogiska Inspirationskon ferensen, Lund. http://www.lth.se/fileadmin/lth/-genombrottet/6:e Pedagogiska Inspirationskonferensen, 2010/56_Bernstad_etal.pdf

Börjesson, P.O, Hamidian, A., Kubilinskas, E., Richter, U., Weyns, K., &Ödling, P. (2006). Free-riding in group work – mechanisms and countermeasures. 4:ePedagogiska Inspirationskon ferensen, Lund. http://www.lth.se/fileadmin/lth/genombrottet/konferens2006/p_o_b_rjesson_-mfl.pdf

FRI-2G.104-1-HC-03

CHESS THERAPY OR ... LIFE AS A GAME OF CHESS

Assoc. Prof. Nikolina Angelova, MD, PhD
Department of Health care,
University of Ruse "Angel Kanchev"
Phone: 0888 747347
E-mail: nangelova@uni-ruse.bg

Abstract: *With its various features (movement of figures and their layout), the game reflected the composition and qualities of the Indian army, formed by four parts: elephants, battle towers, horses and infantry. That is why it is believed that the chess game was designed to train the Indian military chiefs.Through the chess games the contact with the unconscious and with the cause of the internal conflict is also mediated.The goal of the therapy is to achieve personal growth and well-being, to develop skills to cope with difficult life situations, and to reveal the creative potential of the personality, as this happens in the course of the analysis of the game.*

Keywords: *Chess Therapy, Human Relationships.*

JEL Codes: *I11*

REFERENCES

Bezergianov, R., Character Education with Chess, 2011-72

Fadul, J; Canlas, R (2009), Chess Therapy, retrieved 2009-12-27

Fleming, J, Strong, S (1945), Reider, N, ed., "Observations on the Use of Chess in the Therapy of an Adolescent Boy", The Psychoanalytic Quarterly, 14: 562, retrieved 2009-12-27.

Fronzi D., M. Marino, Scacco-terapia apprendere la via della semplicità in 6 dimensioni - Il Cavallo Silenzioso Editore Asis, 2016-07-16

Janethius, T, Creative Chess Therapy, retrieved 2009-12-27

FRI-2G.104-1-HC-04

NEONATAL PAIN

Assoc. Prof. Nina Gamakova-Radkova, MD, PhD
Department of Health care,
University of Ruse "Angel Kanchev"
Phone: 0887-49 98 92
E-mail: nina_radkova@abv.bg

Abstract: *In the past decades there has been many advances regarding the knowledge on neonatal pain measurement and intervention. Unfortunately healthcare providers are still facing numerous challenges as most of the Neonatal intensive care units (NICUs) do not have specific pain management protocols. This article stresses on the importance of not only treating pain in infants but also trying to prevent it as much as possible.*

Keywords: *neonatal pain, neonatal intensive care unit, pain prevention*

JEL Codes: *J00, J01*

REFERENCES

Anand KJ, Aranda JV, Berde CB, et al. Summary proceedings from the neonatal pain-control group. Pediatrics 2006; 117:S9.

Bellieni CV, Buonocore G. Neonatal pain treatment: ethical to be effective. J Perinatol 2008; 28:87.

DiLorenzo M, Pillai Riddell R, Holsti L. Beyond Acute Pain: Understanding Chronic Pain in Infancy. Children (Basel) 2016; 3.

Lago P, Garetti E, Merazzi D, et al. Guidelines for procedural pain in the newborn. Acta Paediatr 2009; 98:932.

Pillai Riddell RR, Stevens BJ, McKeever P, et al. Chronic pain in hospitalized infants: health professionals' perspectives. J Pain 2009; 10:1217.

Schwaller F, Fitzgerald M. The consequences of pain in early life: injury-induced plasticity in developing pain pathways. Eur J Neurosci 2014; 39:344.

Sharek PJ, Powers R, Koehn A, Anand KJ. Evaluation and development of potentially better practices to improve pain management of neonates. Pediatrics 2006; 118 Suppl 2:S78.

van Ganzewinkel CJ, Anand KJ, Kramer BW, Andriessen P. Chronic pain in the newborn: toward a definition. Clin J Pain 2014; 30:970.

Vinall J, Grunau RE. Impact of repeated procedural pain-related stress in infants born very preterm. Pediatr Res 2014; 75:584.

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.104-1-HC-05

TRADITIONS AND NEWS IN INHALATORY CORTICOSTEROIDS

Assoc. Prof. Svilen Dosev, MD, PhD
Department of Health Care,
University of Ruse "Angel Kanchev"
Phone.: 0888885988
E-mail: sdosev@uni-ruse.bg

Assist. Prof. Kina Velcheva, PhD
Department of Health Care,
University of Ruse "Angel Kanchev"
Phone.: 0886211502
E-mail: kvelcheva@uni-ruse.bg

Abstract: *From the far past to the treatment of all diseases, people have experimented using different substances to achieve or reject healing. Some glucocorticoids are important for the medicine from the past to the present day. They are a class of steroid hormones. Corticosteroids are the basis for the treatment of pseudorup, croup and asthma due to: - vasoconstrictor and anti-inflammatory properties, - reduction of airway inflammation, vascular permeability and mucosal edema. In the first years after the onset of glucocorticoid use, it is considered to be a panacea that will eradicate all diseases, but nowadays there is an exact and specific application for treatment and we must not forget that a therapeutic effect can be achieved at the correct dosage, long-term treatment, individual, patient and clinical data of the patient, contraindications, instructions to caregivers and other factors influencing the action.*

Keywords: *glucocorticoids, pharmacokinetics, treatment, anti-inflammatory drugs*

JEL Codes:*J13, I12, I1*

REFERENCES

Georgiev, K. (2015). Biopharmaceutical and Pharmacokinetic Aspects Using Non-Invasive Pathways for the Introduction of Pharmaceutical Substances with a Peptide Structure. Varna, MU-Varna, 148 p. **(*Оригинално заглавие:*** *Георгиев, К., 2015, Биофармацевтични и фармакокинетични аспекти при използване на неинвазивни пътища за въвеждане на лекарствени вещества с пептидна структура. Варна, МУ-Варна, 148 с.*).

Griffith, F. Ll. & Petrie, P. H. (2000). Hieratic Papyri from Kahun and Gurob, The Kahun Gynaecological Papyrus, 4(2), 10-12

Hadzović, S. (1997). Pharmacy and the great contribution of Arab-Islamic science to its development, Medicinskiarhiv 51 (1-2). c.47-50

Horstmanshoff, H. F. J., Stol, M., & Tilburg, C. (2004). Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine, p. 99, Brill Publishers, ISBN 900413666

Valcheva-Kuzmanova, St. (2015). Pharmacology. Varna, STENO, 87 p. **(*Оригинално заглавие:*** Вълчева-Кузманова, Ст., 2015. Фармакология. Варна, СТЕНО, 87 с.)

Zhelyazkova-Savova, M., Valcheva-Kuzmanova, St., Milev, Em. (2017). ClinicalPharmacology: Clinical Pharmacological Approachesinthe Treatmentof Socially Significant Diseases. 2. rev. ed. Varna, MU-Varna, 136 p. **(*Оригинално заглавие:*** *Желязкова-Савова, М., Вълчева-Кузманова, Ст., Милев, Ем., 2017. Клинична фармакология: Клиникофармакологични подходи в лечението на социално значими заболявания. 2. прераб. изд. Варна, МУ-Варна, 2017. 136 с.*)

Zysk, K. G. (1998). Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery, Oxford University Press, rev. ed. ISBN 0195059565 https://medpedia.framar.bg

FRI-2G.104-1-HC-06

STUDY OF STUDENTS' PHYSIOMETRIC INDICATORS

Plamen Petkov, PhD student
Department of Physical Education and Sport,
Trakia University, Stara Zagora, Bulgaria
E-mail: jo_team@abv.bg

Petya Angelova, PhD
Trakia University, Medical College
Bulgaria, Stara Zagora 6003, Georgi Apostolov str. 14
Phone.: +359 886 441 285
E_mail: pe_angelova@abv.bg

Abstract: *Reliable data on physical fitness and determination of the functional state of the body reflect the level of physical capabilities and the level of development of motor skills. Objective: Determination of individual physiometric indicators in students. Contingent: 64 students of Thracian University. The average value of the vital indicator in the studied students is 62.94. With left and right hand dynamometer, mean right hand values of 30.95 kg were found, and left - 34.0 kg. Force strength is set at 120.38 kg. Conclusion: The relative share of students with low values of the vital indicator is high, the values for dynamometry force are also low; there is a disproportion between good physical development due to acceleration factors and recorded retention or deterioration of physical capacity.*

Keywords: *physical development, students, dynamometry, vital capacity*

JEL Codes: I11

REFERENCES

Baronenko, V. A. (2003). Zdorovye i fizicheskaya kultura studenta, V. A. Baronenko, L. A. Rapoport. Moskva: „Alfa – M“, 352 (***Оригинално заглавие:*** Бароненко, В. А., 2003. Здоровье и физическая культура студента, В. А. Бароненко, Л. А. Рапопорт. Москва: „Альфа – М“, 352).

Bozhkova, A. (2013). Izsledvane variativnostta na fizicheskite kachestva i morfofunktsionalnite pokazateli na studentki po dentalna meditsina. V: ÍV Mezhdunarodna nauchna konferentsiya „Savremenni tendentsii na fizicheskoto vazpitanie i sporta”, Nauchni trudove na Rusenskiya Universitet - 2013, tom 52. seriya 8.2 - 58 - Univ. izd. „Sv. Kliment Ohridski”, 7-15, ISSN 1314-2275, Sofiya, 2012 (***Оригинално заглавие:*** *Божкова, А.* (*2013*). *Изследване вариативността на физическите качества и морфофункционалните показатели на студентки по дентална медицина. В: IV Международна научна конференция „Съвременни тенденции на физическото възпитание и спортът”, Научни трудове на Русенския Университет - 2013, том 52. серия 8.2 - 58 - Унив. изд. „Св. Климент Охридски”, 7-15, ISSN 1314-2275, София, 2012*).

Davidenko, D. N. (2005). Zdorovye i obraz zhizni studentov. D. N. Davidenko, YU. N. Shchedrin, V. A. Shchegolev. SPb.: SPbGU ITMO, 12 (***Оригинално заглавие:*** *Давиденко, Д. Н. 2005. Здоровье и образ жизни студентов. Д. Н. Давиденко, Ю. Н. Щедрин, В. А. Щеголев. СПб.: СПбГУ ИТМО, 12*).

Doncheva M., Y. Dobreva. (2013). Izsledvane sastoyanieto na pokazateli za fizicheska deesposobnost v zavisimost ot antropometrikata na studenti ot TU – Varna, Nauchni trudove na Rusenskiya Universitet, tom 52. seriya 8.2 (***Оригинално заглавие:*** *Дончева М., Й. Добрева.* (*2013*). *Изследване състоянието на показатели за физическа дееспособност в зависимост от антропометриката на студенти от ТУ – Варна 2013, Научни трудове на Русенския Университет, том 52. серия 8.2*).

Dyakova, G. (2007). Normativi za otsenka na fizicheskata godnost na studenti. Sport i nauka,

 Copyrights© http://conf.uni-ruse.bg

ISSN 1310-3303, S., izv. br. 1, 581-586 (***Оригинално заглавие:*** *Дякова, Г. 2007. Нормативи за оценка на физическата годност на студенти. Сп. Спорт и наука, ISSN 1310-3303, С., изв. бр. 1, 581-586*).

Dyakova, G., M. Barokova. (2005). Izsledvane na fizicheskata godnost na studenti ot Trakiĭski universitet. Trakia Journal of Sciences, The Scientitific Serial of Trakia University, ISSN 1312-1723, Vol. 3, 37-40 (***Оригинално заглавие:*** *Дякова, Г., М., Барокова. 2005. Изследване на физическата годност на студенти от Тракийски университет. Trakia Journal of Sciences, The Scientitific Serial of Trakia University, ISSN 1312-1723, Vol. 3, 37-40*).

Dyakova G, L. Lapadatov. (2015). Sravnyavane na pokazateli za fizicheska godnost pri studenti. Nauchni trudove na Rusenskiya Universitet, tom 54, seriya 8.2 (***Оригинално заглавие:*** *Дякова Г, Л. Лападатов. 2015. Сравняване на показатели за физическа годност при студенти. Научни трудове на Русенския Университет, том 54, серия 8.2*).

Dyakova, G., P. Peeva, A. Bozhkova. (2007). Izsledvane variativnostta na fizicheskite kachestva i morfofunktsionalnite pokazateli na studenti ot Trakiyski universitet. Sport i nauka, ISSN 1310-3303, Sofiya, izv. br. 1, 587-592 (***Оригинално заглавие:*** *Дякова, Г., П. Пеева, А. Божкова.* (*2007*). *Изследване вариативността на физическите качества и морфофункционалните показатели на студенти от Тракийски университет. Сп. Спорт и наука, ISSN 1310-3303, София, изв. бр. 1, 587-592*).

Ilinich, V. I. (2005). Fizicheskaya kultura studenta.Moskva: „Gardariki“ , 448 (***Оригинално заглавие:*** *Ильинич, В. И. 2005. Физическая культура студента. Москва: „Гардарики“ , 448*).

Plyakov, S. (2017). Testovata bateriya „Evrofit“ kato metodologicheska baza pri izgotvyane na edinni standarti v oblastta na fizicheskoto vazpitanie i sporta. Eastern Academic Journal. ISSN: 2367-7384, Issue 1, 1-7 (***Оригинално заглавие:*** *Пляков, С. 2017. Eastern Academic Journal. Тестовата батерия „Еврофит“ като методологическа база при изготвяне на единни стандарти в областта на физическото възпитание и спорта. ISSN: 2367-7384, Issue 1, 1-7*).

Rapoport, L. A. (2004). Perspektivy razvitiya studencheskogo sporta v universitetakh Rossii: monografiya. Ekaterinburg: GOU VPO UGTU – UPI, 356 (***Оригинално заглавие:*** *Рапопорт, Л. А. 2004. Перспективы развития студенческого спорта в университетах России: монография. Екатеринбург: ГОУ ВПО УГТУ – УПИ, 356*).

Slanchev, P., B. Yanev, F. Genov, P. Shterev, P. Boev, Sepetliev, B. Zahariev. (1992). Fizichesko razvitie, fizicheska deesposobnost i nervno-psikhicheska reaktivnost na naselenieto na Balgariya, NI (19980-1982), BSFKS, Sofiya, 30-31 (***Оригинално заглавие:*** *Слънчев, П., Б. Янев, Ф. Генов, П. Щерев, П. Боев, Сепетлиев, Б. Захариев.* (*1992*).*Физическо развитие, физическа дееспособност и нервно-психическа реактивност на населението на България, НИ* (*19980-1982*)*, БСФКС, София, 30-31*)

Yordanov, S., E. Yordanov, D. Tenev. (2014). Fizichesko razvitie i fizicheska godnost na studenti, uchashti v kurs po nachalna voenna podgotovka na Ministerstvoto na otbranata. Nauchni trudove na Rusenskiya Universitet, Tom 53, seriya 8.2 (***Оригинално заглавие:*** *Йорданов, С., Е. Йорданов, Д. Тенев. 2014. Физическо развитие и физическа годност на студенти, учащи в курс по начална военна подготовка на Министерството на отбраната. Научни трудове на Русенския Университет, Том 53, серия 8.2*).

Zheleznyak, YU. D. (2006). Fizicheskaya aktivnost i zdorovye studentov vuzov nefizkulturnogo profilya. YU. D. Zheleznyak, A. V. Leyfa. Teoriya i praktika fizicheskoy kultury. № 12, 46-47 (***Оригинално заглавие:*** *Железняк, Ю. Д. 2006. Физическая активность и здоровье студентов вузов нефизкультурного профиля. Ю. Д. Железняк, А. В. Лейфа. Теория и практика физической культуры. № 12, 46-47*).

FRI-2G.104-1-HC-07

FREE TIME FITNESS - MOTIVATION FOR FEEDING AND USE OF FOOD ADDITIVES AND ANABOLIC STEROIDS

Senior lecturer PlamenPetkov, PhD student
Department of Physical Education and Sport
Trakia University, Stara Zagora, Bulgaria
E-mail: jo_team@abv.bg

Abstract: *The aim of the study was to explore the motivation for leisure activities and the use of nutritional supplements and anabolic steroids. An exploratory survey was conducted as an express method for assessing the motivation of gym attendants for exercising and taking supplements and anabolic steroids. It has been found that the number of up to 40 years old people training in the gym predominates. After that age, the percentage of gym attendants drops significantly. A large percentage of trainees do not realize the benefits of physical exercise and visit the gym just because of others or because it is fashionable. The majority of respondents visit the gym more than four times a week, and their activities last up to two hours. The main goal for most men is to increase muscle mass,while for the women - to lose weight. A very large proportion of the respondents use dietary supplements, obtaining information predominantly from a fitness instructor. More than half of the respondents have taken anabolic steroids by receiving information about them primarily from the Internet. Based on the results obtained, the following recommendations are offered: continuous improvement of the knowledge of professional fitness instructors on the composition, use and impact on human of various nutritional supplements and training programs; explaining by professional fitness instructors to those who want to take anabolic steroids the risks of potential damage to their health.*

Keywords: *fitness gyms, health, recovery*

JEL Codes: I11

REFERENCES

Bozhkova, A., Draganov, G. (2009), Hranitelni dobavki, sydyrzhashti l-carnitine i neobhodimostta ot prilozhenieto im za redukciya na telesnata masa pri sportisti – voleybolisti, Medicina i sport, ISSN 1312-5664, broy 1/2009 (***Оригинално заглавие:****Божкова, А., Драганов, Г., 2009, Хранителни добавки, съдържащи l-carnitine и необходимостта от приложението им за редукция на телесната маса при спортисти – волейболисти, Медицина и спорт, ISSN 1312-5664, брой 1/2009*)

Bozhkova, A., (2009), Riskove i polzi ot upotrebata na hranitelni dobavki, sadarzhashti alternativi na efedraalkaloidi v sporta, Medicinai sport, ISSN 1312-5664, broy 1/2009 (***Оригинално заглавие:*** *Божкова, А. 2009, Рискове и ползи от употребата на хранителни добавки, съдържащи алтернативи на ефедраалкалоиди в спорта, Медицина и спорт, ISSN 1312-5664, брой 1/2009*)

Draganov, G., Bozhkova, A., (2009), Prilozhenie na hranitelni dobavki sadarzhashti proteini i aminokiselini v kompleksnata trenirovka na futbolisti, Medicina i sport, ISSN 1312-5664, broy 4/2009 (***Оригинално заглавие:*** *Драганов,Г., Божкова, А., 2009, Приложение на хранителни добавки, съдържащи протеини и аминокиселини, в комплексната подготовка на футболисти, Медицина и спорт, ISSN 1312-5664, брой 4/2009*)

Dyakova, G., (1996), Nyakoi vizhdaniya po vaprosa za prilaganeto na teoretichnite znaniya v podgotovkata na grupite za fitness, Sport i nauka, ISSN 1310-3303, br. 8, s. 60-62 (***Оригинално заглавие:*** *Дякова, Г., 1996, Някои виждания по въпроса за прилагането на теоретичните знания в подготовката на групите за фитнес, Спорт и наука, ISSN 1310-3303, бр. 8, с. 60-62.*)

Dyakova, G., Ivanova, V., (2008), Prouchvane zavisimostta mezhdu vredniya navik "gladuvane" I fizicheskata godnost na studentite ot Trakiyski universitet, Trakia Journal of Sciences, ISSN 1312-1723, Vol. 6, N.2, p. 178-182 (***Оригинално заглавие:*** *Дякова, Г., Иванова, В., 2008, Проучване зависимостта между вредния навик "гладуване" и физическата*

годност на студенти от Тракийски университет, Trakia Journal of Sciences, ISSN 1312-1723, Vol. 6, N.2, p. 178-182).

Dyakova, G., (2008), Izsledvane naglasata kam zdravosloven nachin na zhivot na studentki, Lichnost. Motivaciya. Sport., Tom 13, ISBN 978-954-718-229-5, s. 235-242 (***Оригинално заглавие:*** *Дякова, Г., 2008, Изследване нагласата към здравословен начин на живот на студентки, Личност. Мотивация. Спорт., Том 13, ISBN 978-954-718-229-5, с. 235-242.*)

Ivanova, V., Dyakova, G., (2008), Modeli za zdravna promociya pri fizicheskoto vazpitanie i sporta na studenti, Trakia Journal of Sciences, ISSN 1312-1723, N.2, Vol. 6, p. 207-211. (***Оригинално заглавие:*** *Иванова, В., Дякова, Г., 2008, Модели за здравна промоция при физическото възпитание и спорта на студенти, Trakia Journal of Sciences, ISSN 1312-1723, N.2, Vol. 6, p. 207-211.*)

Peeva, P., Dyakova, G., Dimitrova, C., (2007), Fizicheskata aktivnost i vredni navici pri podrastvashti, Sport i nauka, ISSN 1310-3303, Sofiya, izv. br. 1, s. 606-611 (***Оригинално заглавие:*** *Пеева, П., Дякова, Г., Димитрова, Ц., 2007, Физическа активност и вредни навици при подрастващи, Спорт и наука, ISSN 1310-3303, София, изв. бр. 1, с. 606-611.*)

Peeva, P., Angelova, A., Dyakova, G., (2010), Opit za klasifikaciya na savremennite fitness programi, Sport i nauka, ISSN 1310-3303, izv. br. 1, Sofiya., s. 143-153 (***Оригинално заглавие:*** *Пеева, П., Ангелова, А., Дякова, Г., 2010, Опит за класификация на съвременните фитнес програми, Спорт и наука, ISSN 1310-3303, изв. бр. 1, София, с. 143-153.*)

Peltekova, I., Grozdev, V., (2013), Fitnes podgotowka na studentski otbori po basketbol, Sb. Peta mezhdunarodna nauchna konferenciya "Savremenni tendencii na fizicheskoto vazpitanie i sporta", ISSN 1314-2275, s.174-181, Sofiya, Izdatelstvo "Sv. Kl. Ohridski" (***Оригинално заглавие:*** *Пелтекова И., Гроздев В., 2013, Фитнес подготовка на студентски отбори по баскетбол, Сб. Пета международна научна конференция „Съвременни тенденции на физическото възпитание и спорта", ISSN 1314-2275, с.174-181, София, Издателство "Св. Кл. Охридски".*)

FRI-2G.104-1-HC-08

THE PREGNANT WOMAN AS A SUBJECT OF THE DIDACTIC CONCEPT

Assist. Prof. Tsveta Hristova, PhD
Department of Health Care,
University of Ruse "Angel Kanchev"
Phone.: 0988 101 823
E-mail: tshristova@uni-ruse.bg

Abstract: *Didactics as a science of teaching and education has an integrative character, formed by the development of the society and responding to the necessity for acquiring knowledge, skills, lifestyle habits and happiness. Education is a dynamic occurrence as a pedagocial and social phenomenon, strongly connected to the socio-historical development of the specific needs of a certain society, associated with essential industries as Economics, Politics, Healthcare, etc. The issue of the connection between education and development is one of the basics of the pedagogical concept, not only providing for "building competence, skills and habits" resources,but also contributing for a wholesome personal, social, spiritual and cultural, health enrichment and development.*

Theclassical binary activity of education - "teacher-student", which are functionally connected in anunity, is accepted as a distinctive characteristic of the pedagogical interaction.

In higher medical school, both the person that teaches (professor) and the one thatis taught (student) can be looked upon as subjects of education, together with the patient, serving as a specific (third) subject.

Pregnancy is a normal physiological state of the woman and, on the basis of this understanding, she is considered a person that is actively, voluntarily and consciously participating in the process of didactic interaction, positively motivated for acquiring knowledge, skills, and habits, essential to pregnancy, birth and raising the future generation. As a subject of the pedagogical process, the pregnant woman is looked upon as a subject that has characteristics providing for the potential of making independent decisions and having self-control and self-assessment.

The pregnant woman as a part of the health-pedagogical process will influence the health status of the population and the prosperity of the society as a whole.

An original researchis presented, conducted within a group of pregnant women in the area of Ruse town, aiming to identify the necessity of the pregnant woman for receiving teaching and education during the prenatal period – competences and skills for pregnancy, birth and caring for the newborn.

The analysis of the sociological research shows that women need to have established varied forms of education, intended for the period of pregnancy and also manifests their preferences for means and methods for education, necessity for health-pedagogocal knowledge service providers.

A conclusion is drawn that health education is a fundament of positive reproduction and a good health status of the country's population.

The author shares the view that the key place of the future mother as a subject of the didactic concept is historically and socially justified – health education is a declared priority of WHO and the health policies of the EU.

Keywords: *didactics, pregnant woman, education necessity, good health*

JEL Codes: *I 12, I 21*

REFERENCES

Dimitrova, D., (2010) Akusherki na praktika, izd. TAKT OOD, Sofia (***Оригинално заглавие:*** *Димитрова, Д., 2010, Акушерки на практика, ТАКТ ООД София*)

Grudeva, M., (2010) Osnovni problemi na pedagogikata i andragogiyata, izd. MOOREA, Varna (***Оригинално заглавие:*** *Грудева, М. ,2010, Основни проблеми на педагогиката и андрагогията, изд. МООРЕА, Варна*).

Grudeva, M., D. Dimitrova, L. Gotseva, (2012) Spetsifichni osobenosti na bremennata zhena kato obuchavashta se, Upravlenie na obrazovanie, tom VIII (2) (***Оригинално заглавие:*** *Грудева, М., Д. Димитрова, Л. Гоцева 2012, Специфични особености на бременната жена като обучаваща се, Управление на образование, том VIII (2)*)

Grudeva, M., V. Gyurova, T. Kostadinova, (2016) Metodika na akademichnoto prepodavane, Meditsinski universitet Varna, Varna (***Оригинално заглавие:*** *Грудева, М., В. Гюрова, Т. Костадинова, 2016, Методика на академичното преподаване, Медицински университет Варна, Варна*).

Hristova, Ts., (2017) Spetsialni akusherski grizhi pri bremenni s normalna bremennost, Narachnik za akusherki i meditsinski sestri, MEDIATEH – Pleven (***Оригинално заглавие:*** *Христова, Ц. 2017, Специални акушерски грижи при бременни с нормална бременност, Наръчник за акушерки и медицински сестри, МЕДИАТЕХ – Плевен*)

Popov, T., (2005) Pedagogika, Teoriya na obuchenieto Didaktika, Tipografika OOD, Sofiya (***Оригинално заглавие:*** *Попов, Т. ,2005, Педагогика, Теория на обучението Дидактика, Типографика ООД, София*).

Serbezova, I., (2014) Spetsialni akusherski grizhi za bremenni, razhdashti, rodilki i novorodeni, Pechatna baza na Rusenski universitet, Ruse (***Оригинално заглавие:*** *Сербезова, И.,2014, Специални акушерски грижи за бременни, раждащи, родилки и новородени, Печатна база на Русенски университет, Русе*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.104-2-HC

FRI-2G.104-2-HC-01

KINESITHERAPY DURING PREGNANCY

Chief Assist. Prof. Yoana Lukanova, PhD
Department of Health Care,
University of Ruse "Angel Kunchev"
Tel.: +359 885 047 644
E-mail: ylukanova@uni-ruse.bg

Abstract: *Pregnancy is a process that sets new, higher demands on the body of a woman by changing the activity of many important organs and systems. The development of the fetus requires changes in the maternal organism to occur in a short time, which affects the physical and nerve-psychological state of the woman.The female reproductive system provides for the perfect fertilization, development, wear and successful birth of a baby.Pregnancy, in turn, is a process that puts higher demands on the body of a woman while changing a number of vital systems and organs. It is of utmost importance throughout the pregnancy that the woman feels good, without tension, without pain and unpleasant sensation, and prepares for a light birth and quick recovery.Birth is definitely a serious exercise and it is therefore extremely important to maintain good shape during pregnancy. Physical activity and appropriate exercises contribute to lighter birth, faster recovery and return of pre-pregnancy form.*

Keywords:*pregnancy, kinesitherapy, midwives, exercises, gymnastics, physiotherapy*

JEL Codes: *I11*

REFERENCES

Barakova, P., (2012). Kineziterapiya v akusherstvoto i ginekologiyata. Lekcionni zapiski-bakalavri. Pleven: Izdatelski centyr pri Rusenski universitet "Angel Kunchev" (***Оригинално заглавие:*** *Баракова, П., 2012. Кинезитерапия в акушерството и гинекологията. Лекционни записки-бакалаври. Плевен: Издателски център при Русенски университет „Ангел Кънчев"*)

Hadjiev, A., I. Karagyozov, (2005). Akusherstvo. Sofiya: Izdatelstvo "Medicina i fizkultura" (***Оригинално заглавие:*** *Хаджиев, А., И. Карагьозов., 2005. Акушерство. София: Издателство „Медицина и физкултура"*)

Hristova, C., (2017). Specialni akusherski griji pri normalna bremennost. Narychnik za akusherki i medicinski sestri. Pleven: Izdatelstvo "Mediateh" (***Оригинално заглавие:*** *Христова, Ц., 2017. Специални акушерски грижи при нормална бременност. Наръчник за акушерки и медицински сестри. Плевен: Издателство „Медиатех"*)

Kihle, M., (2015). Narychnik po ginekologiya i akusherstvo. Sofiya. Izdatelstvo Medicina i fizkultura (***Оригинално заглавие:*** Кихле, М., 2015. Наръчник по гинекология и акушерство. София. Издателство Медицина и физкултура)

Parashkevova, P., (2015). Kineziterapiya v akusherstvoto i ginekologiyata. Ruse. Izdatelstvo: Rusenski universitet "Angel Kunchev" (***Оригинално заглавие:*** *Парашкевова, П., 2015. Кинезитерапия в акушеството и гинекологията. Русе. Издателство: Русенски университет „Ангел Кънчев"*)

Popov, N., (2009). Kineziterapiya v sportnata praktika. Obshta metodika. Sofiya. Izdatelstvo NSA-Pres (***Оригинално заглавие:*** *Попов, Н., 2009. Кинезитерапия в спортната практика. София. Издателство НСА-Прес*)

www.credoweb.bg/publication/62770/kineziterapiya-za-bremenni-anatomo-fiziologichni-promeni-prez-bremennostta

www.kosioganchev.wordpress.com/tag/бременност/

www.kosioganchev.word.press.com/2009/09/18/поддържаща-физиотерапия-и-кинезитер/

http://shterevhospital.com/pregledi-i-konsultacii/fizioterapiya-i-rehabilitaciya/za-budeshtite-maiki

www.vipclinic-bg.com/articles/kineziterapiq-za-bremenni

FRI-2G.104-2-HC-02

THE BASIC HYGIENIC HEALTH CARE AS A FACTOR FOR THE RISE OF INFECTIONS DUE TO MEDICAL SERVICE (IDMS)

Assist. Prof. Irinka Hristova, PhD
Department of Health care
" University of Ruse "Angel Kanchev
Phone: +359 88 458 2733
E-mail: ihristova@uni-ruse.bg

Abstract: *The professional activities of the clinical nurse are an important risk factor for the rise of infections due to medical service (IDMS), since a great part of them are due to direct contact with the patients – research of somatic indexes, anthropometric measuring, activities covering full and partial body hygiene, bathing, bandages, injections and many other manipulations. The basic hygienic care is part of the risky activities for the rise of infections, if it does not correspond to the standards of quality and safety. The analysis of the state of clinical hygienic care for patients, dependent from compensatory care here in Bulgaria, implores serious challenge for their optimization via changing the existing material and technical means and methods for manipulations, as well as regulating those manipulations. The introduced alternative methods of hygiene for the severely ill in European hospitals, waterless bathing or dry bathing, significantly reduce the risk of infections, saves time, make the activity more attractive and increase the patients' safety, comfort and satisfaction.*

Keywords: *Infections due to medical service, Nurse, Waterless bathing, Dry bathing, Patients, Dependent from compensatory care.*

JEL Codes:*I1,I18*

REFERENCES

Adams J., Bartram J., Chartier Y., Edited. (2008). Essential environmental health standards in health care. World Health Organization. WHO Library Cataloguing-in-Publication Data. ISBN 978 92 4 154723 9 URL:

http://apps.who.int/iris/bitstream/handle/10665/43767/9789241547239_eng.pdf?sequence=1 (Accessed on 12.07.2018).

Allen J., Denni M. (2009). Good personal hygiene. A Dignified Revolution, Britannia House, High Street, Cowbridge URL:

https://www.dignityincare.org.uk/_assets/Resources/Dignity/CSIPComment/Hygiene_article_30_June_20091.pdf (Accessed on 06.09.2018).

Bell J. (2007). Oral hygiene care in critically ill patients. Division of Nursing. Department of Interdisciplinary Health Sciences. Stellenbosch University. Tygerberg. SAJCC. November 2007, Vol. 23, No. 2 URL: https://www.google.bg/url?sa=t&rct=j&q=&esrc=s&source=web&-cd=1&ved=2ahukewj8-n649o7dahvqlyskhakdd4yqfjaaegqicrac&url=https-%3a%2f%2fwww.ajol.info%2findex.php%2fsajcc%2farticle%2fdownload%2f35525%2f64286&usg=aovvaw0krvkrrrwo7ea5sbtd2tnc (Accessed on 08.08.2018).

Elsevier. (2015, March 27). C. difficile doubles hospital readmission rates, lengths of stay. Science Daily. URL:

www.sciencedaily.com/releases/2015/03/150327101104.htm (Accessed on 28.09.2018).

Doklad na komisiyata do saveta. (2014). Vtori doklad na Komisiyata do Saveta otnosno izpalnenieto na Preporaka 2009/C 151/01 na Saveta otnosno bezopasnostta na patsientite, vklyuchitelno profilaktikata i kontrola na infektsiite, svarzani sas zdravni grizhi. (***Оригинално заглавие:*** *Доклад на комисията до съвета.* (*2014*). *Втори доклад на Комисията до Съвета относно изпълнението на Препоръка 2009/C 151/01 на Съвета относно безопасността на пациентите, включително профилактиката и контрола на инфекциите, свързани със*

здравни грижи). URL: https://www.google.bg/url?sa=t&rct=j&q=&esrc=s&source=web&cd=-3&ved=2ahUKEwjg0s7u-O7dAhVDliwKHdQ7DSkQFjACegQIBxAC&url=http%3A%2F%2Fwww.ipex.eu%2FIPEXL-WEB%2Fdossier%2Ffiles%2Fdownload%2F082dbcc54653729e-0146b471b02b40f5.do&usg=AOvVaw3341_snf86PL2S17IKGOKz (Accessed on 23.08.2018).

Georgieva D. (2018). Alternative methods and means for the realization of quality and safe compensatory hygienic care. 57th Science Conference of Ruse University – SSS. Bulgaria. ISBN 1311-3321.

Henderson V. (1966). The Nature of Nursing: A Definition and its Implications for Practice, Research, and Education. New York: Macmillan Publishing. p.15

Koleva Gr. (2018). Current state of the hygiene health care in the context of quality and patients' safety57th Science Conference of Ruse University – SSS. Bulgaria. ISBN 1311-3321.

Muhina S., Tarnovskaya I. (2006). Teoretichni osnovi na sestrinskite grizhi. s.83. (***Оригинално заглавие:*** *Мухина С., Тарновская И. 200). Теоретични основи на сестринските грижи. с.83*).

Naredba № 3 ot 18 fevruari 2013 g. za izmenenie v konstruktsiyata na registriranite patni prevozni sredstva i individualno odobryavane na patni prevozni sredstva, registrirani izvan darzhavite - chlenki na Evropeyskia sayuz ili druga darzhava - strana po sporazumenieto za Evropeyskoto ikonomichesko prostranstvo. V sila ot 01.03.2013 g. (***Оригинално заглавие:*** *НАРЕДБА № 3 от 18 февруари 2013 г. за изменение в конструкцията на регистрираните пътни превозни средства и индивидуално одобряване на пътни превозни средства, регистрирани извън държавите - членки на Европейския съюз или друга държава - страна по споразумението за Европейското икономическо пространство. В сила от 01.03.2013 г.*)

NSQHS Standards. (2017). Clinical Care Standards. URL: https://www.safetyandquality.-gov.au/our-work/assessment-to-the-nsqhs-standards/nsqhs-standards-second-edition/ (Accessed on 09.09.2018).

Prieha programa sreshtu vatreshnobolnichnite infektsii. Sofia. Bulgaria. 16 May 2009. (***Оригинално заглавие:*** Приеха програма срещу вътрешноболничните инфекции. София. България. 16 Май 2009). URL: https://www.blitz.bg/obshtestvo/priekha-programa-sreshchu-vtreshnobolnichnite-infektsii_news48881.html (Accessed on 10.09.2018).

Riskove za zdravoslovnite i bezopasni uslovia na trud v sektora na zdraveopazvaneto. Rakovodstvo za preventsia i dobri praktiki. Lyuksemburg: Sluzhba za publikatsii na Evropeyskia sayuz. (2013). ISBN 978-92-79-26822-9 (***Оригинално заглавие:*** *Рискове за здравословните и безопасни условия на труд в сектора на здравеопазването. Ръководство за превенция и добри практики. Люксембург. Служба за публикации на Европейския съюз. 2013. ISBN 978-92-79-26822-9*)

Silva D. S., Dourado A. A. G., Cerqueira C. R. E. et al. (2017). Hand hygiene adherence according to World Health Organization Recommendations in a Neonatal Intensive Care Unit. Revista Brasileira de Saúde Materno Infantil. On-line version ISSN 1806-9304. URL: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1519-38292017000300551&lng=en&-tlng=en (Accessed on 05.09.2018).

Third Global Ministerial Summit on Patient Safety. (2018). Grand Hyatt, Tokyo. URL: https://www.pipsqc.org/NEWS/Post/504/Third-Global-Ministerial-Summit-on-Patient-Safety-Presentations-and-Proceedings (Accessed on 03.09.2018).

Unahalekhaka A. (2011). Uchebnik Epidemiologia na infektsiite svarzani s meditsinskoto obsluzhvane. Glava 3 Epidemiologia na infektsiite svarzani s meditsinskoto obsluzhvane. (***Оригинално заглавие:*** *Unahalekhaka A.* (*2011*). *Учебник Епидемиология на инфекциите свързани с медицинското обслужване. Глава 3 Епидемиология на инфекциите свързани с медицинското обслужване*). URL: http://theific.org/wp-content/uploads/2015/01/Ch-3-Bulgarian.pdf (Accessed on 16.08.2018).

Washington, URL: https://apic.org/For-Media/News-Releases/Article?id=5f5d83fc-58e8-

4bc9-bdee-374f4db17de (Accessed on 02.09.2018).

Weinstein R. A., Milstone A. M., Passaretti C. L., Perl T. M. (2008). Chlorhexidine: Expanding the Armamentarium for Infection Control and Prevention. Volume 46, Issue 2. URL: https://academic.oup.com/cid/article/46/2/274/458337 (Accessed on 02.09.2018).

Western Nursing Home Abuse Laws. URL: http://www.nursinghomeabuseguide.org/states/-western (Accessed on 07.09.2018).

WHO guidelines on hand hygiene in health care. (2009). World Health Organization. URL: http://www.who.int/gpsc/5may/tools/9789241597906/en/ (Accessed on 11.08.2018).

FRI-2G.104-2-HC-03

ALTERNATIVE METHODS AND MEANS FOR THE REALIZATION OF QUALITY AND SAFE COMPENSATORY HYGIENIC CARE

Assoc. Prof. Despina Georgieva, PhD
Department of Haelth Care,
University of Ruse "Angel Kanchev"
Phone:0889789100
E-mail: dpgeorgieva@uni-ruse.bg

Abstract: *For the last 25 years in Bulgaria we observe development in medical science, and also a significant falling behind from some fields of health care, more specifically in giving hygienic care to patients who need compensatory hygienic care. A change in the methods and means of applying it, is needed. In the European hospitals and the US, the method of waterless bathing or dry bathing is successfully applied, and it consists of using sponges, gloves, towels and disposable hats. The goal of the current scientific statement, is to show a summarized introduction of researches that prove the effectiveness and advantages of the method, as well as the products required for its application.*

Keywords: *hygiene of severely ill people, traditional hygienic care, alternative hygienic care, means of realization of waterless bathing, dry bathing*

JEL Codes: *I1, I18*

REFERENCES

Beloev Y. (2000). Grizhi za bolnia i sestrinska tehnika. MI Arso. Sofia. (***Оригинално заглавие:*** *Белоев Й. (2000). Грижи за болния и сестринска техника. МИ Арсо. София*)

Carvajal G., M.,Ramírez, J. David. (2015). Hygiene: basic care that promotes comfort in critically ill patients. Enfermería Global. ISSN 1695-6141. URL: http://scielo.isciii.es/pdf/-eg/v14n40/en_revision2.pdf (Accessed on 16.08.2018).

Coffey PS, Metzler M, Islam Z, Koehlmoos TP, Chlorhexidine for Umbilical Cord Care: Selected Bibliography, BMC Int Health Hum Rights. 2013; 13:44. http://www.ncbi.nlm.nih.gov/-pubmed/24139384

Groven F M. V, S. M. G. Zwakhalen, Gaby Odekerken-Schröder, E. J. T. Joostenand, J. P. H. Hamers. (2017). How does washing without water perform compared to the traditional bed bath: a systematic review. BMC Geriatr. Published online 2017 Jan 25. doi: 10.1186/s12877-017-0425-4 PMID: 28118815 URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5264342/ (Accessed on 10.08.2018).

Guidelines for the Prevention of Intravascular Catheter-Related Infections, 2002 https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5110a1.htm?vm=r

Hristova, I. (2018). The basic hygienic health care as a factor for the rise of infections due to medical service (IDMS), 57th Science Conference of Ruse University – SSS. Bulgaria. ISBN 1311-3321.

Jordan J. R., Bloom H. L. (2010). Prevention of Bacterial Infections in Patients with CIED: Old Traditions Meet New Technology. The Journal of Innovations in Cardiac Rhythm Management. URL: http://www.innovationsincrm.com/cardiac-rhythm-management/2010/octo-ber/25-prevention-of-bacterial-infections-cied (Accessed on 03.08.2018)

Koleva, Gr., (2018) Current state of the hygiene health care in the context of quality and patients' safety, 57th Science Conference of Ruse University – SSS. Bulgaria. ISBN 1311-3321.

Markova St. (2008). Meditsinski standarti po Zdravni grizhi. Narachnik za meditsinski sestri, akusherki, klinichni laboranti, rengenovi laboranti. Sofia. (***Оригинално заглавие:*** *Медицински стандарти по Здравни грижи.* (*2008*)*. Наръчник за медицински сестри, акушерки, клинични лаборанти, ренгенови лаборанти. Под редакцията на Проф. д-р Станка Маркова. София*)

Milstone A. M., Robert A. Weinstein Catherine L. Passaretti Trish M. Perl Chlorhexidine: Expanding the Armamentarium for Infection Control and Prevention, Clinical Infectious Diseases, Volume 46, Issue 2, 2008, Pages 274–281, https://doi.org/10.1086/524736

Milstone, M., Catherine L. Passaretti and Trish M.,(2015) Chlorhexidine: Expandingthe Armamentarium for Infection Control and Prevention Aaron Perl 2,3 1 Divisionof Pediatric Infectious Diseases, Department of Pediatrics, and 2 DivisionofI nfectious Diseases, Department of Medicine, Johns Hopkins University School of Medicine

NAREDBA № 3 ot 8.05.2013 g. za utvarzhdavaneto na meditsinski standart po preventsia i kontrol na vatrebolnichnite infektsii Izdadena ot ministara na zdraveopazvaneto, obn., DV, br. 43 ot 14.05.2013 g., v sila ot 11.05.2013 g. (***Оригинално заглавие:*** *НАРЕДБА № 3 от 8.05.2013 г. за утвърждаването на медицински стандарт по превенция и контрол на вътреболничните инфекции Издадена от министъра на здравеопазването, обн., ДВ, бр. 43 от 14.05.2013 г., в сила от 11.05.2013 г.*)

Rakavitsi TOTAL HYGIENE za bezvredno izmivane, http://shop.naturum.bg/index.-php?route=product/category&path=61_73

Riskove za zdravoslovnite i bezopasni uslovia na trud v sektora na zdraveopazvaneto. Rakovodstvo za preventsia i dobri praktiki.Lyuksemburg: Sluzhba za publikatsii na Evropeyskia sayuz, 2013 g.ISBN 978-92-79-26822-9 (***Оригинално заглавие:*** *Рискове за здравословните и безопасни условия на труд в сектора на здравеопазването. Ръководство за превенция и добри практики. Люксембург. Служба за публикации на Европейския съюз. 2013. ISBN 978-92-79-26822-9*)

Stoykov D., (2012). Spravochnik za zdravni grizhi - tehnicheski fishove. Uchebno pomagalo za meditsinski sestri, akusherki i laboranti. (***Оригинално заглавие:*** *Справочник за здравни грижи - технически фишове. Учебно помагало за медицински сестри, акушерки и лаборанти.* (*2012*)*. Под редакцията на Проф. д-р Дивмитър Стойков. УМБАЛ Д-р Георги Странски" ЕАД- Плевен. Факултет по здравни грижи- МУ- Плевен*)

Webster J, Osborne S. (2015). Preoperative bathing or showering with skin antiseptics to prevent surgical site infection. Cochrane Database Syst Rev. doi: 10.1002/14651858.CD004985-.pub5. PubMed PMID: 25927093. URL: https://www.ncbi.nlm.nih.gov/pubmed/25927093 (Accessed on 11.09.2018).

Weinstein R. A., Milstone A. M., Passaretti C. L., Perl T. M. (2008). Chlorhexidine: Expanding the Armamentarium for Infection Control and Prevention. Clinical Infectious Diseases, Volume 46, Issue 2, 15 January 2008, Pages 274–281. URL: https://doi.org/10.1086/524736 (Accessed on 06.09.2018).

http://shop.naturum.bg/?gclid=CjwKCAjw2_LcBRBYEiwA_XVBU6fLmAhVCHPFebhjj vwTXg2c2MWRtyX3lOLoQcNVn0631bv3BsXdqRoC0xMQAvD_BwE

FRI-2G.104-2-HC-04

CURRENT STATE OF THE HYGIENE HEALTH CARE IN THE CONTEXT OF QUALITY AND PATIENTS' SAFETY

Chef Assist. Prof. Greta Koleva, PhD
Department of Haelth Care,
University of Ruse "Angel Kanchev"
Phone: 0882 517173
E-mail: gkoleva@uni-ruse.bg

Tsvetelina Stancheva
Chief nurse
University Hospital for Active Treatment "Kanev", Ruse
Phone: +359 87 900 7571
E-mail: c_stancheva@abv.bg

Abstract: *An analysis of the current state of the hygiene health care in the University hospital "Kanev" in Ruse, is performed in the current scientific statement, which is in the context of the contemporary methods and standards for accomplishing them. The motivation and mindsets of the nurses for applying the methods in four clinical directions, are being analyzed: in surgical, therapeutic, wards of vascular neurology, and intensive care. The nurses express their attitude for changing the methods and means of applying hygiene care. The absence of engagement, identified in a great part of the enquired nurses concerning the hygiene care, has to do with the current problems in health care: a lack of sufficient nurse personnel, and a great number of patients completely dependent of compensatory care. The introduction of the method "waterless bathing"/dry bathing is perceived as possible, but the hospital administration, have no intention to invest money for improving the health care state. Waterless bathing is a widely used and time-tested method for hygiene care worldwide, and is preferred by the nurses. Its effectiveness for reducing infections of medical service, is proven.*

Keywords: *hygiene of the severely ill, traditional hygiene care, quality of hygiene care, waterless bathing method, dry bathing*

JEL Codes:*I1, I18*

REFERENCES

Azza H. El-Soussi, Hayam I. Asfour. Examining bed-bath practices of critically ill patients Department of Critical Care and Emergency Nursing. Faculty of Nursing. Alexandria University. Alexandria. Egypt Received: May 10, 2016. Accepted: June 28, 2016 DOI: 10.5430/jnep.v6n12p1. URL: http://dx.doi.org/10.5430/jnep.v6n12p1

Beloev Y. (2000). Grizhi za bolnia i sestrinska tehnika. MI Arso. Sofia. (***Оригинално заглавие:*** *Белоев Й. (2000). Грижи за болния и сестринска техника. МИ Арсо. София*)

Georgieva D. (2018). Alternative methods and means for the realization of quality and safe compensatory hygienic care. 57th Science Conference of Ruse University – SSS. Bulgaria. ISBN 1311-3321.

Inan NK, Dinç L. (2013). Evaluation of nursing documentation on patient hygienic care. International Journal of Nursing Practice 2013; 19: 81–87. URL: https://pdfs.semanticscholar.-org/150c/05786ea51efc462fd5bb264ee087b5970866.pdf

Hristova, I. (2018). The basic hygienic health care as a factor for the rise of infections due to medical service (IDMS), 57th Science Conference of Ruse University – SSS. Bulgaria. ISBN 1311-3321.

Hughes RG (ed.). (2008). Patient safety and quality: An evidence-based handbook for nurses. (Prepared with support from the Robert Wood Johnson Foundation). AHRQ Publication No. 08-0043. Rockville, MD: Agency for Healthcare Research and Quality.

Markova St. (2008). Meditsinski standarti po Zdravni grizhi. Narachnik za meditsinski sestri, akusherki, klinichni laboranti, rengenovi laboranti. Sofia. (***Оригинално заглавие:*** *Маркова, Ст.* (*2008*)*Медицински стандарти по Здравни грижи. Наръчник за медицински сестри,*

акушерки, клинични лаборанти, ренгенови лаборанти. Под редакцията на Проф. д-р Станка Маркова. София)

NAREDBA № 3 ot 18 fevruari 2013 g. za izmenenie v konstruktsiyata na registriranite patni prevozni sredstva i individualno odobryavane na patni prevozni sredstva, registrirani izvan darzhavite - chlenki na Evropeyskia sayuz ili druga darzhava - strana po sporazumenieto za Evropeyskoto ikonomichesko prostranstvo. V sila ot 01.03.2013 g. (***Оригинално заглавие:*** *НАРЕДБА № 3 от 8.05.2013 г. за утвърждаването на медицински стандарт по превенция и контрол на вътреболничните инфекции Издадена от министъра на здравеопазването, обн., ДВ, бр. 43 от 14.05.2013 г., в сила от 11.05.2013 г.*)

Riskove za zdravoslovnite i bezopasni uslovia na trud v sektora na zdraveopazvaneto. Rakovodstvo za preventsia i dobri praktiki.Lyuksemburg: Sluzhba za publikatsii na Evropeyskia sayuz, 2013 g.ISBN 978-92-79-26822-9 (***Оригинално заглавие:*** *Рискове за здравословните и безопасни условия на труд в сектора на здравеопазването. Ръководство за превенция и добри практики. Люксенбург. Служба за публикации на Европейския съюз. 2013.* ISBN 978-92-79-26822-9)

Stoykov D., (2012). Spravochnik za zdravni grizhi - tehnicheski fishove. Uchebno pomagalo za meditsinski sestri, akusherki i laboranti. (***Оригинално заглавие:*** *Стойков, Д. Справочник за здравни грижи - технически фишове. Учебно помагало за медицински сестри, акушерки и лаборанти.* (*2012*)*, Плевен*

Vasconcelos J.de Melo Buriti, Caliri M. H. Larcher. (2017). Preventing pressure injury in intensive care. Esc. Anna Nery vol.21 no.1 Rio de Janeiro 2017 Epub Jan 16, 2017. On-line ISSN 2177-9465. URL: http://dx.doi.org/10.5935/1414-8145.20170001

FRI-2G.104-2-HC-05

TRAINING OF RELATIVES AND ATTENDANTS OF HEMODIALYSIS PATIENTS

Assist. Prof. Teodora Todorova
Department of Health Care,
Univesity of Ruse "Angel Kanchev"
Phone: 0897- 083 403
E-mail: tetodorova@uni-ruse.bg

Abstract: *Kidney failure is one of the leading chronic diseases that cause disability or a lasting and significant decrease in quality of life. Hemodialysis is a method of treatment that is life-saving in irreversibly failing renal function. In order to maintain a good overall quality of life for hemodialysis patients it is necessary to carry out joint activities with them, their relatives and the nurses. The training of patients on hemodialysis and their relatives and companions should be a continuous process. Rarely common is organized training in the form of courses of relatives of sick people with chronic diseases. Exploring escorts with hemodialysis regimen and lifestyle contributes to helping patients change their daily lives in accordance with conducting dialysis procedures, adherence to the necessary diet in order to preserve their overall quality of life. The main motivation in conducting the training is that the attendants acquire the necessary knowledge about life with chronic kidney disease and hemodialysis treatment, to be able to respond adequately to the needs of their relatives. The training of the attendants of hemodialysis patients gives calmness and confidence that they have the necessary skills to care for their relatives. The availability of knowledge leads to overcoming the fear of uncertainty and uncertainty about the future.*

Keywords: *training, relatives and attendants, hemodialysis patients*

JEL Codes: *I11*

REFERENCES

Mushekov, V., (2005), Problemi na dializnoto lechenie, Aktualna nefrologia, V, 2005, № 4, 7-11. (***Оригинално заглавие:*** *Мушеков, В., 2005, Проблеми на диализното лечение, Актуална нефрология, V, 2005, № 4, 7-11*).

Naredba № 1 ot 08.02.2011 g.za profesionalnite deynosti, koito meditsinskite sestri, akusherkite, asotsiiranite meditsinski spetsialisti I zdravnite asistenti mogat da izvarshvat po naznachenie ili samostoyatelno. URL: https://www.lex.bg/laws/ldoc/2135718392 (Accessed on 16.08.2018)

Stefanov, G. (2004). Kachestvo na zhivota pri bolni na periodichna hemodializa, Zdraven menidzhmant, IV, 5, c. 48-53 (***Оригинално заглавие:*** *Стефанов Г., 2004. Качество на живота при болни на периодична хемодиализа, Здравен мениджмънт, IV, 5, 48-53*).

FRI-2G.104-2-HC-06

CHRONOLOGY OF MEDICAL SYMBOLS AND EMERGENCY HELP

Assoc. Prof. Kristina Zaharieva, PhD
Faculty of Public Health and Health Care,
Department of Health Care,
University of Ruse “Angel Kanchev”
E-mail: kzaharieva@uni-ruse.bg

Assoc. Prof. Teodora Nedeva, MD, PhD
Faculty of Public Health and Health Care,
Department of Health Care,
University of Ruse “Angel Kanchev”
E-mail: teddy_nedeva@yahoo.com

Assist. Prof. Tatyana Atanasova
Faculty of Public Health and Health Care,
Department of Health Care,
University of Ruse “Angel Kanchev”
E-mail: nursing_russe@abv.bg

Abstract: *Different characters and signs have been accompanying humanity since the beginning of his story. Each of the medical symbols has its unique origin and meaning. Historical information on emergency medical aid dates back to ancient times. In every tribal community, there have always been healers in every part of the world who have provided the necessary emergency assistance. The contribution of ancient Greek medical schools to the handling of emergency situations is evidenced by many texts, including the papers of the Father of medicine - Hippocrates(460-377 BC), as well as graphic and embossed images. Emergency assistance is inextricably linked to the use of appropriate vehicles that have been constantly refining over the years in various directions: propulsion, design, equipment. The earliest document of the existence of an emergency transport system is from the late 18th century, known as "Flying Ambulance". It was for transportation of victims during the Napoleonic wars. An important place in emergency relief is the organization formed by women during the Crimean War. Sanitary trains for wounded and sick transport help triage and emergency relief during the Civil War in the United States, the Russian-Turkish war and the First World War.*

Keywords: *emergency aid, "flying ambulance", medical symbols, sanitary trains*

JEL Codes: I1-I19

 Copyrights© http://conf.uni-ruse.bg

REFERENCES

Baev St., & St. Gyaurov, & B. Nikolova, &Y. Palezhev, (2005), Rusenska bolnitsa-istoricheski belezhki, DENITSA, Ruse (***Оригинално заглавие:*** *Баев Ст., Ст. Гяуров, Б. Николова, Й. Палежев, 2005, Русенска болница- исторически бележки, ДЕНИЦА, Русе*).

Barkley, Katherine (1978), The ambulance: the story of emergency transportation of sick and wounded through the centuries. New York: Exposition Press. ISBN 0-682-48983-2.

Buzov E., (2008), Drevnoegipetskata didaktichna literatura 3-2 hil.predi Hrista, Doktorska disertatsia (***Оригинално заглавие:*** *Бузов Е., 2008, Древноегипетската дидактична литература 3-2 хил. преди Христа, Докторска дисертация*).

Gaston SR (March 1971), Accidental death and disability: the neglected disease of modern society. A progress report". The Journal of Trauma. 11 (3): 195–206. doi:10.1097/00005373-197103000-00001. PMID 5545943.

Georgieva L., (2017) Zdravna ikonomika i menidzhmant, broy 4 (66) Copyright © IK „Steno“ − Varna, 2001−2017(***Оригинално заглавие*** *Георгиева Л., 2017, Здравна икономика и мениджмънт, година., брой 4 (66) Copyright © ИК „Стено“ – Варна*).

Mihelya, D.V., (2010) Istoria meditsinы i farmatsii, pod red. M., „Eksmo“, ISBN 978-5-699-42621-8, s. 140-142 (***Оригинално заглавие:*** *Михеля, Д.В., 2010, История медицины и фармации, под ред., М., „Эксмо“,ISBN 978-5-699-42621-8, с. 140-142*).

Sadek, Ashraf Alexandre (January 2001), Some Aspects of Medicine in Pharonic Egypt, History of Medicine. Australian Academy of Medicine & Surgery. Retrieved, 2012-10-24.

Skandalakis PN, Lainas P, Zoras O, Skandalakis JE, Mirilas P (August 2006), To afford the wounded speedy assistance: Dominique Jean Larrey and Napoleon". World Journal of Surgery 30(8): 1392–99. doi:10.1007/s00268-005-0436-8. PMID 16850154.

Vaganov, I. (2016), Istoria эkstrennoy meditsinskoy pomoshti Cherepovtsa, ISBN: 9785447457013 (***Оригинално заглавие:*** *Ваганов И. ,2016, “История экстренной медицинской помощи Череповца”, ISBN: 9785447457013*).

Zlatanova R., & R., T. Zlatanova, (2015) Organizatsia i upravlenie na speshnata meditsinska pomosht, Goreks Pres, Sofia, ISBN 978-954-616-254-0 (***Оригинално заглавие:*** *Златанова Р., Р., Т. Златанова, 2015, Организация и управление на спешната медицинска помощ, Горекс Прес, София , ISBN 978-954-616-254-0.*)

https://doctorspb.ru/articles.php?article_id=3016.-2018 (Accessible).

https://www.pamettanabulgarite.com/page/4155162: Page:393528 (Accessible).

https://ladyzone.bg/article/laifstail/lica/razmisli-ot-florans-naitingeil.html (Accessible).

https://Motorcycle%20ambulance%20-%20Wikipedia.html (Accessible).

https://www.lostbulgaria.com/?cat=388 9 (Accessible).

https://spasitelbg.com/lectures/zlaten-chas-1161 (Accessible).

FRI-2G.104-2-HC-07

THE PLACE OF WOMEN'S COUNSELING IN THE PRESENT

Assist. Prof. Kina Velcheva, PhD
Department of Health Care,
University of Ruse "Angel Kanchev"
Phone.: 0886211502
E-mail: kvelcheva@uni-ruse.bg

Abstract: *In today's society, it is increasingly clear that health professionals are poorly prepared to act independently during a female counseling or so-called. female patronage. On the other hand, the patient is dissatisfied with the fact that he is not effectively and competently served in this direction. Modern societal development, as well as the achievements of medical science* (*especially in the field of early prenatal resuscitation and care, molecular research, stem cell, in vitro and in situ fertilization, transplantation*) *challenge the medical community to resolve preventive and prophylactic dilemmas, in compliance with mandatory legal and moral-ethical regulations.*

Keywords: *women's counseling, obstetrics, pregnancy, prevention and prevention of pregnancy*

JEL Codes:*J19, I12*

REFERENCES

Borisov V. (2003). Health Management with Fundamentals of Health Policy, Philliest, Sofia (***Оригинално заглавие:*** Борисов В., 2003. Здравен мениджмънт с основи на здравната политика, Филвест, София,).

Chakarova - Gateva, M. (2003). Public Health Education in Europe - Regional Perspective, Health Management Magazine, issue 4, pages 6-12 (***Оригинално заглавие:*** *Чакърова – Гатева, М., 2003. Обучението по обществено здраве в Европа – регионална перспектива, сп. Здравен мениджмънт, бр.4, стр.6-12*).

Dvojnikova, S. (2007). Main sistercases: studying. Among the. prof. Placed, IC „Academy", Moscow (***Оригинално заглавие:*** *Основы сестринского дела: учеб. для студ. сред. проф. учеб. заведений. под редакцией С. И. Двойникова, 2007. ИЦ „Академия", Москва*).

Healthcare Development Strategy in Bulgaria 2013-2020 (***Оригинално заглавие:*** *Стратегия за развитие на здравните грижи в Р България 2013 – 2020 г.http://nursing-bg.com/old/str.html Accessed on 2018*).

ORDINANCE № 26 of 14.06.2007 on the provision of obstetric care to uninsured women and for carrying out research outside the scope of compulsory health insurance for children and pregnant women (***Оригинално заглавие:*** *НАРЕДБА № 26 от 14.06.2007 г. за предоставяне на акушерска помощ на здравно неосигурени жени и за извършване на изследвания извън обхвата на задължителното здравно осигуряване на деца и бременни жени https://www.nhif.bg/*). (*Accessed on 2018*).

Vodenicharov, T. & Popova, S. (2003). Medical Ethics, S. (***Оригинално заглавие:*** *Воденичаров, Ц., С. Попова, 2003. Медицинска етика, С., 27*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2G.104-2-HC-08

STRATEGIES FOR IMPLEMENTING LONG-TERM CARE OF MENTAL HEALTH IN THE COMMUNITY

Assoc. Prof. Daniela Konstantinova, PhD
Department of Health care,
Univesity of Ruse "Angel Kanchev"
Phone: 0888 520 021
E-mail: ddraganova @uni-ruse.bg

Abstract: *Long-term care is defined differently in EU Member States. It reflects the differences in the duration of care, the covered users of services, and the often difficult to define boundary between the offered medical (health) and non-medical (social) services. At present, there is noseparate definition of long-term care and long-term care services in the Bulgarian legislation or an official classification of the person sentitled to them.*

At the present level of development of psychiatry, in the context of deinstitutionalization of mental health services and increased opportunities for control of the symptoms of mental disorders, the problem of socialization of patients becomes more and more relevant. The Assertive community treatment approach is one of the most widely studied approaches in psychiatric rehabilitation.

Keywords: *long-term care strategies, mental health in the community.*

JEL Codes: *I11*

REFERENCES

Georgieva, D., (2015), Sestrinski griji pri vazrastni, Izdatelski centar pri Rusenski universitet "Angel Kanchev" (***Оригинално заглавие:*** *Георгиева, Д., 2015, Сестрински грижи при възрастни, издателски център при Русенски университет „Ангел Кънчев"*)

Gurovich, I. IA., (2001), Vzaimodeystvie obschemedicinskoy i psihiatricheskoy pomoschi i stigma psihiatricheskih rasstroystv, Ruskii medicinskii jurnal, T. 9, № 25. C. 1202-1203. (***Оригинално заглавие:*** *Гурович, И. Я., 2001, Взаимодействие общемедицинской и психиатрической помощи и стигма психиатрических расстройств, Русский медицинский журнал, Т. 9, № 25., С. 1202-1203*).

Kabanov, M.M., (2001), Problema reabilitacii psihicheski bolnih i kachestvo ih jizni, Socialnaia i klinicheskaia psihiatria, № 1.C.22-27 (***Оригинално заглавие:*** *Кабанов, М.М. 2001, Проблема реабилитации психически больных и качество их жизни, Социальная и клиническая психиатрия, 2001, № 1. С.22-27*).

Kabanov, M.M., Burkovskii, G.V., (2000), Redukcia stigmatizacii i diskriminacii psihicheski bolnih, Obozrenie psihiatrii i med. psihologii, № 1, C. 3-8 (***Оригинално заглавие:*** *Кабанов М.М., Бурковский Г.В., 2000, Редукция стигматизации и дискриминации психически больных, Обозрение психиатрии и мед.психологии, № 1, С. 3-8*).

Killaspy H. From the asylum to community care: learning from experience. British Medical Bulletin. 2007;1-14; doi:10.1093/bmb/ldl017. British Medical Bulletin 2006; 79 and 80: 245–258URL: http://bmb.oxfordjournals.org/content/79-80/1/245.full.pdf+html

Lehman A. F. (1998) Publish health policy, community services and outcomes for patients with schizophrenia // The psychiatric clinics of North America. 1998. - V. 21. -P. 221-231.

Lehman A.F. (1988) Quality of life interview for the chronical mentally ill// Evaluation and Program Planning. 1988. V. 11. - P. 51-62.

Maj, M., (2009), Physical health care in persons with severe mental illness: a public health and ethical priority, World Psychiatry 8:1-February2009;

Mitrofanova, O., (2008), Kachestvo jizni bolnih schizofrenii v razlichnih grupah naselenia – kliniko-socialni i genderni aspekti (***Оригинално заглавие:*** *Митрофанова О., 2008, Качество*

жизни больных шизофренией в различных группах населения -клинико-социальный и гендерный аспекты)

Muhametschina, Z,F., (2009), Socialnoe funkcionirovanie i kachestvo zhizni bolnyh shizofreniey - kliniko-socialni i psihologicheski aspekti, avtoreferat, Moskva, 2009 (***Оригинално заглавие:*** *Мухаметшина, З. Ф., Социальное функционирование и качество жизни больных шизофренией* (*клинико-социальные и психологические аспекты*), *автореферат, Москва, 2009*) *URL: http://medical-diss.com/medicina/sotsialnoe-funktsionirovanie-i-kachestvo-zhizni-bolnyh-shizofreniey*)

Nacionalna programa za psihichno zdrave na grajdanite na Republika Bulgaria 2017 – 2023 godina, (***Оригинално заглавие:*** *Национална програма за психично здраве на гражданите на Република България 2017 – 2023 година*)

Nacionalna strategia za dalgosrochna grija 2014 godina (***Оригинално заглавие:*** *Национална стратегия за дългосрочна грижа – 2014 година*)

Semke, V.IA., (2004), Rol i mesto psihoterapii v klinike endogennih razstrostv, Aktualnie problemi sovremennoi psiatrii i psihoterapii, Novosibirsk, s.118-128 (***Оригинално заглавие:*** *Семке, В.Я., 2004. Роль и место психотерапии в клинике эндогенных расстройств* (*взгляд из прошлого в настоящее*), Актуальные проблемы современной психиатрии и психотерапии, Новосибирск, -С.118-128) URL:

http://www.euro.who.int/document/E82976.pdfaccessed 8-8-11]

http://www.euro.who.int/document/E82976.pdf

Voitenko, A.M., (2002), Socialnaia psihiatria s osnovami medico-socialnoi ekspertizi i reabilitologii, ruk-vo dlia vrachei i psihologov, izd. “Foliant”, 2002 (***Оригинално заглавие:*** *Войтенко, А.М., 2002, Социальная психиатрия с основами медико-социальной экспертизы и реабилитологии: рук-во для врачей и психологов Текст. — СПб.: Фолиант, 2002. 256 с.*) URL:http://www.samomudr.ru/d2/Vojtenko%20R.M.%20Socialnaja%20psixiatrija%20s%20osnovami%20mediko-socialnoj%20ekspetizy%20i%20reabilitologii.-SPb.,2001.pdf

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.313-1-L

FRI-2B.313-1-L-01

ELOQUENCE AND ARGUMENTATION

Prof. Lachezar Dachev, PhD
Department of Public Law, Law Faculty
University of Ruse, Bulgaria
Tel.: +359 82 888 429
E-mail: ldachev@abv.bg

Asst. Prof., Doroteya M. Dimova-Severinova, PhD Student
Department of Public Law, Law Faculty
University of Ruse, Bulgaria
Tel.: +359 82 888 429
E-mail: ddimova@uni-ruse.bg

Abstract: *The eloquence is an oratory talent. It is the ability of expression that is convincing and beautiful by using linguistic means in order to succeed in convincing the addressed person. The Rhetoric as a practically applied science explores the laws, the regularities, the principles and the methods of the oratory art. An immediate goal of the rhetorical approaches is to achieve a harmonic and correct speech which will convince, excite and engage the listener. The juridical argumentation is an intellectual, logical activity. It differentiates significantly from the rhetoric and the oratory art by its subject, the purpose and the mechanisms. The juridical argumentation is a process of forming of factual and legal conclusions by a public authority with law enforcing competence. The main place in the process of argumentation is taken by the statement as a logical means.*

The purposes of the present report are three: To point out the distinctive characteristics of the juridical argumentation and to outline its place in the process of law enforcement by the competent authorities; Do differentiate the juridical argumentation from other similar concepts; To analyze the statement as a logical means in the process of legal argumentation.

Keywords: *Argumentation,Rhetoric, Statement, Validity, Logic*
JEL Codes:

REFERENCES

Berzhel, J.L. (1993). General legal theory, Blagoevgrad.

Getmanova, A.D. (2016). Logic for jurists, Moscow.

Dachev, L. (2004). Juridical discourse, Ruse.

Dworkin, R. (2003). Taking rights seriously, Sofia.

Perelman Ch. (1999). The New Rhetoric: A Treatise on Argumentation, Dalloz.

Perelman, C. (1979). Logik and Argumentation, Kronbery.

Plantin Christian (2016). Dictionary of argumentation, Lyon.

Philosophical dictionary, Moscow, 1968.

Schneider, E. (1965). Logik fur Juristen, Berlin.

Stefanov, V. (2001). Logik, Sofia.

Stalev, Zh. (1997). The normative power of the factual, Sofia.

Shuman, A. (2001). The philosophical logic, Minsk.

FRI-2B.313-1-L-02

PROTECTION OF PERSONS WITH NON-CHEMICAL DEPENDANCES

Elitsa Kumanova
Associate Professor in Theory of law and state, PhD
Angel Kanchev University of Ruse, BG
E-mail:ekumanova@uni-ruse.bg

Nikolina Angelova
Associate Professor in Psychiatry, PhD
Angel Kanchev University of Ruse, BG
E-mail:nangelova@uni-ruse.bg

Abstract: *The protection of persons with non-chemical dependences is a new problem for Bulgarian legislation due to the fact that these problems have arisen over the last decade. Behavioral bias is psychological, non-chemical dependence, attachment to a particular action to which a person attributes an overvaluing value, ultimately defining all human behavior. This bias has various forms - workaholism, gambling, computer dependencies. The elaboration of adequate legal mechanisms to support persons with non-chemical dependencies will contribute settlement of the problem.*

Keywords: *non-chemical dependences, behavioral bias, protection of rights*
JEL codes*: K14*

REFERENCES

Chalmers D., C. Hadjiemmanuil, G. Monti, A. Tomkin. (2006). European Union Law. Cambridge University press.
http:\\www.ChallengingTheLaw.com
http:\\www.justicedevelopment.org
http:\\www.nmd.bg

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.313-1-L-03

RELIGION, CULTURE AND LAW AS INCLUSIVE CONDITIONS AND CRITERIA FOR BELONGING TO THE EUROPEAN CIVILIZATION AND THE EUROPEAN UNION

Asst. Prof. Ivelin Velchev,
Faculti of Law, Public Law
"Angel Kanchev" Univesity of Ruse
Tel.: 0889 261 356
E-mail: ivelchev@uni-ruse.bg

Abstract: *The history of a national state is not understandable, taken on its own and unrelated to the other. Groups of related communities, known as civilizations, are the distinct spheres of learning. Civilization is the broadest cultural community. It is a characteristic of every civilization to protect and preserve its identity. At the core of each civilization there are characteristics that define it as such, and accordingly distinguish it from others. These are - religion; as a consequence of the way the state-religion relations are regulated; the heritage (considered as historical and / or cultural); the role of law in public life (sources, principles).*

Religion is a major determinant of civilizations, and great religions are the foundations of great civilizations. Christianity has created the principle of moral unity and has given peoples in Europe spiritual values, moral standards, and the concept of divine law from which all human laws are derived in sanction and validity.

The peoples, divided by ideologies but connected with a common culture, converge. Societies united on an ideological basis or with historical circumstances, but divided on a civilization basis, either disintegrate or have to overcome a tremendous internal tension

Culturally related countries cooperate economically and politically. International organizations based on culturally similar countries are developing much more successfully than organizations that aspire to overcome cultures. Culture in different countries has its own specificity and distinctive features, however the sharing of common cultural values, thus creating a common cultural characteristic of a particular community. The idea of a united Europe must reflect both the common and the private. To be able to combine universal and peculiar.

Keywords: *Civilization, community, religion, culture, belonging, Europe, European Union*

REFERENCES

Bromlej, Iu. (1976). Etnos i etnografiya, Sofia, (***Оригинално заглавие:*** *Бромлей, Ю., Етнос и етнография, София, 1976*)

Carroll Quigley. (1961) The Evolution of Civilizations: An Introduction to Historical Analysis, New York: Macmillan.

Dawson, C. (2002). Dynamics of World History, Intercollegiate Studies Institute

Gavriluk, R., Metodologicheska tradiciya na doktrinite na estestvenoto pravo (***Оригинално заглавие:*** *Гаврилюк, Р., Методологическая традиция доктрины естественного права: монография, Черновски национален университет, 2012*)

Gencheva, D. (2017). Lingva franka (***Оригинално заглавие:*** *Генчева, Д., Лингва франка – концептуализация и процеси на развитие. , В: Медии и език. Електронно списание за научни изследвания по медиен език, 2017*)

Gumilyov, N. (2007). Etnogenezisyt I biosferata na Zemyata, Varna (***Оригинално заглавие:*** *Гумильов, Л., Етногенезисът и биосферата на Земята, ИК „Сталкер", Варна, 2007*)

Huntington, S. (2006). The Clash of Civilizations and the Remaking of World Order, Obsidian, (***Оригинално заглавие:*** *Хънтингтън, С., Сблъсъкът на цивилизациите и преобразуването на световния ред, Обсидиан, 2006*)

Manan, P. (2001). Smisalat na naciite (***Оригинално заглавие:*** *Манан, П., Смисълът на нациите, Университетско издателство „Св. Климент Охридски". 2011*)

Mouton, J. (2001). Iuridicheski razmisli varhu badeshteto na ES, Sofia (***Оригинално заглавие:*** *Мутон, Ж., Юридически размисли върху бъдещето на ЕС, София, 2010*)

Parsons, T. (2005). Evoliuciyata na obshtestvata, KK (***Оригинално заглавие:*** *Парсънс, Т., Еволюцията на обществата, КК, 2005*)

Shlekin, S. (2013). Problemi prava, Librokom (***Оригинално заглавие:*** *Шлекин, С. И., Проблема права, Либроком, 2013*)

Ostler, N. (2012). The last lingua franca: English until the return of Babel, The Montréal Review.

Toynbee, A. (1995). A Study of History, Sofia (***Оригинално заглавие:*** *Тойнби, А., Изследване на историята, Том 1, 2, 3, ИК Христо Ботев, София, 1995*)

Habermas, J. (2011). Za konstituciite na Evropa, Sofia (***Оригинално заглавие:*** *Хабермас, Ю., За конституцията на Европа, София, 2011*)

Walzer, M. (1994). Thick and Thin: Moral Argument at Home and Abroad, University of Notre Dame Press, Indiana.

URL: http://www.europarl.europa.eu/about-parliament/bg/in-the-past/the-parliament-and-the-treaties

FRI-2B.313-1-L-04

ROMAN IDEAS FOR THE MODERN CONCEPT OF LEGAL DISCIPLINARY LIABILITY

Velislava Acheva, PhD
Faculty of Law
Department of Public Law,
University of Ruse "Angel Kanchev"
E-mail: vacheva@uni-ruse.bg

Abstract: *The term Roman law nowadays often refers to more than the laws of Roman society. The legal institutions evolved by the Romans had influence on the laws of other peoples in times long after the disappearance of the Roman Empire and in countries that were never subject to Roman rule. In Roman times, there was a division of "the state" on the one hand and "the people" on the other. The modern term legal disciplinary liability is related to the system of legal relationships arising in the case of a violation of the law where the infringer is a public body or its representative*

Keywords: *legal disciplinary liability*
JEL Codes: *K340, K330*

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.313-1-L-05

FROM THE BABYLON TOWER TO HOMO CIBERNETICUS / SHORT SOCIO-THEOLOGICAL ANALYSIS OF TRANSHUMANISM

Svilen Spasov
Department of Biblical and Systematic Theology
VTU"St.st.Cyril and Methodius"
Orthodox Faculty
E-mail: slaispasov@yahoo.com

Abstract:*In this short research, the parallel development of ideology and scientific theories is followed. In this context, genetic engineering is the tip of the iceberg of a socio-cultural process in which the technology is articulated at the surface of the public forum, but the basis is the process of dominating evolutionism and eugenics ideas later developed further into the ideas of transhumanism as a complete ideology that evolution should continue but be directed and controlled by man through different types of technology, and genetic engineering.*

Keywords: *transhumanism, evolutionism, genetic engineering,*

REFERENCES

Bess, M. (2010).Enhanced Humans versus "Normal People": Elusive Definitions. // Journal of Medicine and Philosophy, 35: 641–655.

Charo, R., Hynes, R.(2017).Human Genom Editing: Science, Ethic, and Cavernace. Washington: Nacional Academic press.

Cherry, M. J. (2007).Traditional Christian Norms and the Shaping of Public Moral Life: How Should Christians Engage in Bioethical Debate within the Public Forum? // Christian Bioethics, 13: 129–138.

Engelhardt, H. Tr. (2006) The Search for Global Marality: Bioethics, the Culture Wars, and Moral Diversity, Global Bioethics. Huston, pp. 18–49.

Engelhardt, H. Tr. (2012).Christian Bioethics in a Post-Christian World: Facing the Challenges. // Christian Bioethics, 18(1), 93–114.

Frankel, B. (1987)The Post-Industrial Utopians. Oxford.

Fukuyama, F.(2002).Our posthuman future: Consequences of the biotechnology revolution. New York.

Hughes, J. (2010).Contradictions from the Enlightenment Roots of Transhumanism. // Journal of Medicine and Philosophy, 35: 622–640.

Iltis, A. S. (2009).The Failed Search for the Neutral in the Secular: Public Bioethics in the Face of the Culture Wars. // Christian Bioethics, 15, pp. 220–233.

Lilley, S.(2013).Transhumanism and Society: The Social Debate over Human Enhancement. // SpringerBriefs in Philosophy.

FRI-2B.313-1-L-06

HISTORICAL APPROACH TO ADMINISTRATIVE LAW

Emanuil Kolarov
Associate Professor in Administrative Law and Procedures, Dr.iur.
Angel Kanchev University of Ruse, BG
E-mail: ekolarov@uni-ruse.bg

Abstract: *The paper aims at defining historical method as an approach in administrative law science, and to apply it to some central institutions of that branch. The author defends the idea that research on state government and administration need to depict the form of the state and the structure of the public administration at the same time. On that basis, conclusions may be drawn that administrative law and some of its institutions are rather old and have been developed together with the stage of development of the polity and society of a state.*

Keywords: *Administrative law, history, legal methodology, public administration*

JEL Codes: *Y20, K39*

FRI-2B.313-1-L-07

RESIGNATION AS A REASON FOR THE EXPIRATION OF THE PREROGATIVES OF A NATIONAL REPRESENTATIVE

Assoc. Prof. Zornitsa Yordanova, PhD
Department of Public Law, Law Faculty,
"Angel Kanchev" University of Ruse
Phone: 082 888-758
E-mail: ziordanova@uni-ruse.bg

Abstract: *The topic of the paper is one of the constitutional reasons for the expiration of the prerogatives of a member of the National Assembly of the Republic of Bulgaria which is resignation presented before the Assembly. The author analyzes the current constitutional regulation as well as the relevant case-law of the Constitutional court. A comparison is made with the constitutional provisions and cases concerning the resignation of other public officials and some suggestions are made for the improvement of the legal regulation of the matter.*

Keywords: *Resignation, National Assembly, National representative, term of office, Constitution, prerogatives, expiration*

JEL Codes: *D 72, D 73, K16*

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.313-1-L-08

DOUBLE TAXATION AND DOUBLE-NON-TAXATION. AVOIDANCE MEASURES

Assoc. Prof. Elina Marinova, PhD
Department of Law,
"Angel Kanchev" University of Ruse
Phone: 082 888 429
E-mail: elina_marinova@uni-ruse.bg

Abstract: *This paper focuses on issues that have insufficient consideration in our jurisprudence. It presents the concepts of Double Taxation and Double-Non-Taxation, circumstances giving rise to them and respectively - unilateral, bilateral and multilateral measures of avoidance. The development of different types of agreements on tax matters, their various elements and related problems are also considered. The debate „substance versus form principle" and the prevalence of economic or social reality over the literal wording of tax provisions are outlined.*

Keywords: *double taxation, base erosion, profit shifting, administrative cooperation, agreements*

FRI-2B.313-1-L-09

INCOME FROM THE ACTIVITY OF PROSTITUTION IS NOT ILLEGAL IT MUST BE SUBJECTED TO TAXATION AND THEREFORE MERITFUL OF TAX PROTECTION

Eduardo Maria Piccirilli
Prof. Di diritto tributario Università Parthenope – Napoli –Italia
Prof. di diritto finanziario IUM Academy School – Napoli - Italia

Abstract: *In the current legal scenario, income from prostitution must be worthy of attention and protection by the fiscal system, as tax legislation, by taxing everything that is lawful, cannot treat such income in the same way as the income coming from criminal activity (theft, robberies, drugs, etc..).*

Those who claim that the income from prostitution cannot be taxed because it is not cited in the tax law does not do it justice as it is not an autonomous system in respect to the other branches of law, therefore it is not the only source of regulation of tax companies. Moreover, the legislator, who for revenue needs, for extra fiscal purposes, for the evolution of the tax system, or even through a procedure traced by the case law, subjects a situation to taxation, believes that it must be worthy of protection by the tax system.

Without dwelling on the interweaving between the history of tax and the history of humanity, it is important to highlight how the evolution of the tax system reflects the profound changes in socio-economic structures as well as institutional political ones, also affected by interest, sensitivity, hopes and economic and financial conditioning.

From the reading of the Consolidated Law on Income Taxes, a unitary definition of income is not obtained, however, the forecast of different income categories is shown, whose common denominator is represented by the origin, or from a productive source, thus referring to other branches of law the specificity and regulation of the same. From this it emerges that the activity of prostitution, which in itself lacks profiles of unlawfulness (unlike the activity of aiding or exploiting it), must be recognized as a nature of income, since the civil law recognizes partial protection for the activity of prostitution, including sexual performance for payment in the category of natural obligation, which, if it does not allow right to action, gives the person who carried out the activity of prostitution the right to legitimately consider the sums received in payment of the service.

The activity of prostitution has been repeatedly examined by the tax jurisprudence of merit and legitimacy, with diametrically opposed rulings. But it is with sentence n. 22413 of 2016 that the Supreme Court puts an end to the differences in the case law, framing the income from prostitution in the category of different incomes regardless of

the fact that the activity is carried out occasionally or habitually, noting the condition of habitability, only for the purpose of 'subjecting the proceeds of the activity of prostitution also for VAT purposes.

It would be appropriate for the legislator to intervene on the matter, given that the prostitution market produces a turnover estimated at around 4 billion a year.

Keywords: *Prostitution, Illegal Activity, Prostitution Tax*

JEL Codes: *ius 12*

REFERENCES

M.T. Acri. (2010). The prostitution between deviance and danger, in L'altro diritto.

G. Borgata. (1935). Notes on the Science of Finance and Financial Law.

B. Di Giovanni. (1973). Meaning and limits of legal reformism, in P. Barcelona (edited by), The alternative use of law, I. Juridical science and analysis of law, Bari.

A. Fedele. (2006). The fiscal function and the ability to contribute in the Italian Constitution, in L. Perrone - C. Berliri, Tax Law and Constitutional Court, Naples.

Ferlazzo Natol.i (2002). Features of Tax Law, Milan.

F. Gallo. (2011). The tax authorities, second edition, Il Mulino

M. Gibson. (1995). State and prostitution in Italy 1860-1915, Milan.

A. Giovannini. (2015). The tax king is naked, Milan.

S. Luzzi. (2004). Health and Health in Republican Italy, Rome.

F. Pistolesi. (2006). Tax Justice, Bologna.

D. Stevanato. (2014). The social justification of the tax - tributes and determinability of wealth between law and politics, Bologna.

A. F. Uricchio. (2017). Routes of Tax Law, Bari.

Jurisprudence

Court of Justice ruling n. 268 of 20.11.2001, in Case C-268/99
Constitutional Court No. 45 of 1963
Constitutional Court No. 50 of 1965
Constitutional Court No. 91 of 1974
Constitutional Court No. 164 of 1975
Constitutional Court No. 416 of 2000
Constitutional Court No. 627 of 2000
Constitutional Court No. 320 of 2005
Constitutional Court No. 330 of 2007
Constitutional Court No. 227 of 2009
Court of Cassation No. 4927 of 1986
Court of Cassation No. 9573 of 2007
Court of Cassation No. 1739 of 2007
Court of Cassation n ° 28324 of 2007
Court of Cassation No. 8041 of 2008
Court of Cassation n ° 4589 of 2009
Court of Cassation n ° 18081 of 2010
Court of Cassation No. 20528 of 2010
Court of Cassation No. 10578 of 2011
Court of Cassation No. 15596 of 2016

MERIT JURISPRUDENCE

C.T.R. of the Lombardy sentence n. 35/31/05 of 2006
C.T.P. of Milan sentence n. 272 of 2005
C.T.P. of Florence sentence n. 146 of 2007
C.T.P. of Reggio nell'Emilia sentence No. 131 of 2009

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.313-1-L-10

LEGAL TREATMENT OF INHERITANCE TAX

Assist. Prof. Vanya Panteleeva, PhD
Faculty of Law
Department of Public Law,
University of Ruse "Angel Kanchev"
Tel.: +359 887 412 662
E-mail: vpanteleeva@uni-ruse.bg

Abstract: *The paper reviews the legal treatment of inheritance tax according to the Bulgarian tax law and inheritance tax in other European Union member states. The main focus is on the similarities and differences between the inheritance tax treatment and the way of taxation in Bulgaria and in some EU member states. According to the Bulgarian tax law the inheritance tax is a constitutionally established legal fact* (*art. 17, par.1 of the Constitution of Republic of Bulgaria.*). *It is a local and direct tax and according to Art. 29, par. 1 from the Local Taxes and Fees Act, inheritance tax is levied on the estate of any Bulgarian citizen succeeding located within Bulgaria or abroad property, as well as on the estate located within Bulgaria succeeded by foreign citizens. In most EU member states the inheritance tax and donation tax are direct taxes and are collected from property that is transferred to another person's property. The both taxes are considered separately except some countries where there is one general tax.*

Keywords: *legal treatment, inheritance tax, way of taxation, EU, similarities, differences*
JEL Codes: *K340, K330*

REFERENCES

Isenbaert, M. (2010). *EC Law and the Sovereignty of the Member States in Direct Taxation*, Doctoral Series, Vol.19, Amsterdam: IBFD, 2010, p. 904

Penov, S. (2011). Pravoto na Evropeiskia sajuz I prekite danaci. Sofia: Izdatelstvo Sibi (***Оригинално заглавие:*** *Пенов, С., 2011. Правото на Европейския съюз и преките данъци. София: Издателство „Сиби“*.)

Stoyanov, P. (1994). Danachno pravo. Sofia: Izdatelstvo na Balgarskata academia na naukite (***Оригинално заглавие:*** *Стоянов, П., 1994. Данъчно право. Трето допълнено и преработено издание София: Издателство на Българската академия на науките.*)

Cenova, L. (2012). Evropeisko danachno pravo. Sofia: Izdatelstvo Feneya (***Оригинално заглавие:*** *Ценова, Л., 2012. Европейско данъчно право. София: Издателство „Фенея“*.)

Preporaka na Komisiyata ot 15.12.2011 otnosno oblekcheniata pri dvoinoto danachno oblagane na nasledstvata (2011). OB 2011 L 336, p. 81. URL: https://eur-lex.europa.eu/legal-content/BG/TXT/PDF/?uri=OJ:L:2011:336:FULL&from=EN

FRI-2B.313-1-L-11

TAX INCENTIVES FOR VIDEO GAMES DEVELOPMENT. COMPATIBILITY WITH EU LAW

Hristina R. Georgieva, PhD student
Private Law Sciences Department, Faculty of Law,
University of National and World Economy,
Attorney at law, Member of Sofia Bar Association
E-mail: georgieva.r.hristina@gmail.com

Abstract: *This article investigates the legal framework that is applied when tax credit is implemented as a financial mechanism for supporting developers and publishers of video games with cultural content. The article also examines the compatibility of this type of financial support with the EU law, mainly with the EU Treaty rules on state aid, and provides an overview of the two investigations undertaken by the European Commission, regarding the notifications made by France and the United Kingdom on tax credit granting for video games creation.*

Keywords: *State aid, tax incentives, tax credit, tax relief, financial support, video games development, cultural content.*

JEL Codes: *Y20, K39*

REFERENCES

Aide d'Etat n° SA.47892 (2017/N) – France Crédit d'impôt en faveur de la création de jeux vidéo – modifications et prolongation, Bruxelles, 5.5.2017, C(2017) 3146 final.

Commission Decision of 11 December 2007 on State Aid C 47/06 (ex N 648/05) Tax credit introduced by France for the creation of video games (notified under document number C(2007) 6070) (Text with EEA relevance), OJ L 118, 6.5.2008, p. 16–29.

Commission Decision of 27 March 2014 on the State aid scheme SA.36139 (13/C) (ex 13/N) which the United Kingdom is planning to implement for video games (notified under document C(2014) 1786) Text with EEA relevance, OJ L 323, 7.11.2014, p. 1–8.

Council Decision of 18 May 2006 on the conclusion of the Convention on the Protection and Promotion of the Diversity of Cultural Expressions.

European game support systems, A Work in Progress Information collected during 2015, National and Regional public funds for interactive and games, Elaborated by Creative Europe Desk Denmark Adaptation and design by Media Office Spainp.

Focus on Tax - KPMG's guide to international tax competitiveness Competitive Alternatives – special report, 2016 edition.

Games funding guide, Creative Europe Desk Denmark, MEDIA 2016.

German Games Industry Presents Model Bill For Development Tax Credits, http://gameslaw.org/german-games-industry-presents-model-bill-for-development-tax credits/, последно посетен на 06.08.2018.

Mac Síthigh, D. "Multiplayer games: tax, copyright, consumers and the video game industries", European Journal of Law and Technology, Vol 5, No 3, 2014

Nick Pettigrew, Graham Keilloh, Kelly Maguire, Paul Sheriffs and Jayesh Navin Shah, Video Games Tax Relief Evaluation Research Report for HM Revenue and Customs, March 2017.

Rešenie N461/2005 otnosno danačnija stimul za filmite v Obedinenoto kralstvo, 22 noemvri 2006 g., OB C/9/2007 от 13.1.2007 г., Решение N461/2005 относно данъчния стимул за филмите в Обединеното кралство, 22 ноември 2006 г.

Rešenieto ot 16 maj 2006 g. po kazus N 45/06 — Danačnijat kredit za fotografska produkcija, OB C 293, 2.12.2006 г., стр. 6), Решението от 16 май 2006 г. по казус N 45/06 — Данъчният кредит за фотографска продукция.

 Copyrights© http://conf.uni-ruse.bg

Rešenieto ot 22 mart 2006 g. po kazus N 84/04 i N 95/04 — Režimi na pomošti za kinoto i audiovizualnite proizvedenija, (OB C 305, 14.12.2006 г., стр. 12), Решението от 22 март 2006 г. по казус N 84/04 и N 95/04 — Режими на помощи за киното и аудиовизуалните произведения.

State aid: Commission opens investigation into a French tax credit scheme for video game creation, IP/06/1602, Brussels, 22nd November 2006.

State Aid: the Commission authorises French aid scheme for video game creation, IP/07/1908, Brussels, 12 December 2007.

State aid: Commission approves extension of French aid scheme for video game creation, European Commission – Press Release.

State Aid SA. 48362 (2017/N) – United Kingdom. Video games tax relief – prolongation. C(2017) 7138 final, Brussels, 23.10.2017.

TIGA: Research and Development. Tax incentive guide. How video game companies can get the most out of the research and development tax incentive (R&DTI). A guide to research and development tax relief for video game companies, 2016.

TIGA: A guide to video game tax relief. UK unleashed: How video games businesses can get the most out of games tax relief, November 2016.

Tax relief for the video games sector, https://www.moorestephens.co.uk/news-views/april-2017/tax-relief-for-the-video-game-sector, последно посетен на 06.08.2018.

UK game developers missing out on Video Games Tax Relief, 04 May 2018, Author: Leon Cliff, https://ukie.org.uk/news/2018/05/uk-game-developers-missing-out-video-games-tax-relief, последно посетен на 06.08.2018.

Video games tax relief (VGTR), Whitepaper.

Video Game Tax Relief to continue until at least 2023, https://www.mcvuk.com/development/video-game-tax-relief-to-continue-until-at-least-2023, последно посетен на 06.08.2018.

Video games tax credit. NESTA joins call for UK developer tax break. https://www.gamesindustry.biz/articles/video-games-tax-credit-nesta-joins-call-for-uk-developer-tax-break, последно посетен на 06.08.2018.

Video Games Tax Relief Scheme Extended, 8th November, 2017, https://www.-myriadassociates.com/news/2017/video-games-tax-relief-scheme-extended/, последно посетен на 06.08.2018.

FRI-2B.313-1-L-12

PROFESSIONS IN HEALTH CARE SYSTEM – BASIC TERMS AND CRITICAL REVIEW

Asst. Prof. Maria Radeva, PhD
Department of Law,
"Angel Kanchev" University of Ruse
Phone: 0887 – 299 - 552
E-mail: mradeva@uni-ruse.bg

Abstract: *The Healt act defines which the medical professions are. The medical profession shall be practiced by persons who hold a diploma for completed higher education in specialities from the occupational sections of Medicine, Dentistry, Pharmacology and Health care. In the field of health care also work specialists from the professional field Public health. Different degree requirements are introduced for particular majors - bachelor, master, etc. Some professions in healthcare are regulated professions. This means that access and exercise are subject to possession of a specific professional qualification. For certain professions in healthcare, the law introduces compulsory membership in a professional organization.*

Keywords: *Medical profession, health care, regulated profession, professional organisation*
JEL Codes: *I20, I18, K31*

REFERENCES

Zinovieva, D. (2016). Medical Law, Ciela

http://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprofs (Accessed on 16.09.2018)

FRI-2B.313-1-L-13

LEGAL-SOCIOLOGICAL PARAMETERS OF NATIONAL ANTI-DISCRIMINATION LEGISLATION RELATED TO THE CHARACTERISTICS "AGE" AND "DISABILITY"

Leyman Tyuleoglueva, PhD
Ruse University, Bulgaria
Phone: 0893389263
E-mail: lemi69@abv.bg

Abstract: *The problems of discrimination and the establishment of anti-discrimination legislation occupy a special place in the policy of the Republic of Bulgaria as a member of the EU. Significant is the fact that a vast part of the normative acts adopted within the Union aim to ensure a fair and equal treatment of certain features. From the legal and sociological point of view, it is important to form anti-discriminatory justice in the context of the ever-globalizing modern world and to expand the possibilities for multicultural communication and development by preserving the value of traditions and specifics of each community.*

Keywords*:anti-discrimination legislation, discrimination, the legal and sociological point*
JEL codes*: K32*

 Copyrights© http://conf.uni-ruse.bg

REFERENCES

Dobbin, Frank, Erin L. Kelly. (2007). How to Stop Harassment: Professional Construction of Legal Compliance in Organizations. – American Journal of Sociology, N4/2007, p.1203.

Kirchev P. Antidiskriminatsionnoto zakonodatelstvo v Balgariya: Istoriya i razvitie., evropeiski institut (***Оригинално заглавие:*** *Кирчев П. Антидискриминационното законодателство в България: История и развитие., европейски институт*)

Ilieva, I. (2005). Pravata na zhenite kato prava na choveka i sistemata na OON. (V sb.) Nauchni trudove na IPN,T.2.S., BAN (***Оригинално заглавие*** **:***Илиева, И Правата на жените като права на човека и системата на ООН.* (*В сб.*) *Научни трудове на ИПН,Т.2.С., БАН, 2005*)

Kirchev P. Prakticheski podkhodi za borba s diskriminatsiyata i utvarzhdavane na ravni vazmozhnosti v Balgariya (***Оригинално заглавие*** **:** *Кирчев П. Практически подходи за борба с дискриминацията и утвърждаване на равни възможности в България*)

Naumova, St. (2012). Sotsiologiya na pravoto. Istoricheski traditsii i perspektivi na razvitie. S., BAN (***Оригинално заглавие:*** *Наумова, Ст. Социология на правото. Исторически традиции и перспективи на развитие. С., БАН, 2012*)

Naumova, St. Pravno-sotsiologicheski aspekti na preventsiyata na diskriminatsiyata (***Оригинално заглавие*** **:** *Наумова, Ст. Правно-социологически аспекти на превенцията на дискриминацията.*)

ahu.mlsp.government.bg/portal/document 306

www.pravatami.bg

www.strategy.bg/strategic Documents/

FRI-2B.313-1-L-14

THE MOVABLE AND IMMOVABLE PROPERTY AND THE RIGHT OF SOCIAL ASSISTANCE IN THE CONTEXT OF THE SOCIAL ASSISTANCE ACT

Byulent Mehmed, PhD Student
Institute of Legal Studies of the Bulgarian Academy of Sciences
Phone: 0882826240
E-mail: byulent_seit@abv.bg

Abstract: *The right to receive social assistance shall be granted to Bulgarian citizens, families and cohabitants whom, due to their health, age, social or other reasons beyond their control, cannot themselves meet their basic vital needs through labor or through income realized from property owned or with the help of the responsible persons to provide them with aid according to art. 140 Family code. The report analyses the right to receive social assistance in the context of their ownership of movable and immovable property.*

Keywords: *social aid, movable and immovable property; social assistance*.

REFERENCES

http://www.asp.government.bg/web/guest/structure

https://www.lex.bg/laws/ldoc/2134405633

https://www.lex.bg/laws/ldoc/-13038592

FRI-2B.313-1-L-15

STATUS AND POSITION OF BULGARIAN NATIONAL AUDIT OFFICE AMONG THE BODIES OF STATE GOVERNANCE

Zhivko Dimov, Doctoral Student
Department of Public Law, Faculty of Law
"Angel Kanchev" University of Ruse
Tel.: +359 82 888434
E-mail: jidimov@abv.bg

Abstract: *Constitutional and ordinary legislative provisions on the status of the National Audit Office of Republic of Bulgaria is rather brief. This makes necessary to get into more details and deeply analyzing its role and position among the other bodies of state governance. The paper is concentrated on different types of audit institutions around Europe and the rest of the world, and compare them to the model and structure of Bulgarian National Audit Office. Research is oriented on national legislation concerning the functions and competence of state authorities within the three state powers and the links of interaction between them and the national audit institution. The structure of management of the National Audit Office is under analyze regarding its current model (the 'Auditor General' model), and the independence of audit institutions principle as laid down in international audit standards by the Professional Standards Committee of the International Organization of Supreme Audit Institutions (INTOSAI). Conclusions and results of this research may be used as basis for further analysis of problems and challenges the audit institutions face as regards conduct of its competent activities and guarantees for its independence.*

Keywords: Bulgarian National Audit Office, Links of interaction, Status, Legislation, Structure of management, INTOSAI

JEL Codes: *L10, L11*

FRI-2B.313-1-L-16

ABOUT MEASURE OF LAW

Svetla Marinova
Associate Professor in Theory of law and state, PhD
Department of Public Law
University of National and World Economy
E-mail: smarinova@mail.bg

Abstract: *The measure of law in one way or another is part of legal evolution. The measure is an intrinsic feature of law. Prior to regulation law distributes, sets the measure of the goods. Therefore, through the measure of justice, it reflects the qualitative and qualitative dimension of law addressed to the subjects. Through the measure of law, it transposes fundamental legal thinking to a qualitative-quantitative point of view.*

Keywords: *measure of law, regulation, dimension of law.*

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.313-1-L-17

PROTECTION AND CARE FOR REFUGEE CHILDREN IN THE REPUBLIC OF BULGARIA

Desislava Mladenova Argirova, PhD
Scientific department - Social and legal sciences
Technical University of Varna
Phone: 0876 699 260
E-mail: desislavamp@gmail.com

Abstract: *This report aims to investigate the existing legal framework and practice on acceptance and social protection of unaccompanied minors seeking and receiving international protection in the Republic of Bulgaria, identifying existing problems and difficulties, offering analysis and recommendations for improving the effectiveness of the system of protection and care of the target group. The report examines and analyzes the situation of unaccompanied minors who have sought protection in Bulgaria so far. Data has been gathered on the care they receive both during and after the granting of international protection, or after receiving status refusals. Various aspects of the overall package of care in the context of international protection are being tracked as: access to territory, registration, initial reception, legal and social protection, housing; access to education; access to healthcare; appointment of guardians and guardians, family reunification and integration of unaccompanied children. A guiding principle within the entire study is the best interest of the child.*

Keywords: *protection, integration, refugee children, vulnerable groups.*

REFERENCES

Ilareva, V. (2016). Refugee Law Collection

Tsankov, V. (2006) Refugee Law

United Nations High Commissioner for Refugees - Refugee children - Guidelines for protection and care

Monitoring Report 2014 on the Conditions of Acceptance and Social Protection of Unaccompanied Miners seeking or Received International Protection in the Republic of Bulgaria - This report is prepared on request and with the financial support of the United Nations High Commissioner for Refugees Sofia, January 2015 - the author of the study is Kristina Gologanova

Guidelines for alternative care for children - Framework of the United Nations

Access of children to justice in the protection of their right to private and family life Training materials on access to justice for migrant children - FAIR Project, April 2018

Handbook on European Law on the Rights of the Child

FRI-2B.311-1-L

FRI-2B.311-1-L-01

ANALYSIS AND COMMENT OF PARAGRAPH 2 OF INTERPRETATIVE DECISION № 8/2012 OF SUPREME COURT IN A RELATION TO THE SUBJECTIVE PROPERTY RIGHTS DEFENSE

Serghei Calincov
Faculty of Law,
"Angel Kanchev" University of Ruse
E-mail: skalinkov@uni-ruse.bg

Abstract: *The Bulgarian legal system regulates the legal protection of property rights via petitor protection, concerning a category of claims, each of which is characterized by certain protection frameworks depending on whether the right is being challenged or it is already impaired. The purpose of this article, based on the analysis of the property rights defense, is to make a brief comment on paragraph 2 of Interpretative Decision No. 8/2012 of the Supreme Court, according to which "the plaintiff can challenge a property right action even when there stands the opportunity to challenge a convictive action for property. " The Supreme Court's position raises a number of issues that will be the subject of this study.*

Keywords: *property rights defense, claim, affection, legal interest*

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.311-1-L-02

COMPARISON BETWEEN THE INHERITANCE AND THE OTHER MEANS FOR SUBSTITUTION OF THE DEBTOR

Ventsislav L. Petrov, Ph.D in law, Senior assistant professor
Faculty of Law, Department of Civil law studies
Sofia University St. Kliment Ohridski, Bulgaria
GSM +359888681751
E-mail: vencislav.petrov@yahoo.com

Abstract: *The article examines the similarities and the differences between the inheritance of the debt ant the other means for substitution of the debtor. The thesis of the author is that only the inheritance is a means for substitution of the debtor mortis causa unlike the all other means, which are inter vivos. The universal succession appeared only in the inheritance; the other means have a private succession as a consequence. There are a few similarities between the inheritance and some of the other means, for example that the debt transfers to the successor in unchanged status.*

Keywords: *inheritance of the debt; substitution in debt; purchase of inheritance; debt transfer*

REFERENCES

Apostolov, I. (1990). Obligatsionno pravo, Ch. I, Obshto uchenie za obligatsiyata. Sofia: Izdatelstvo na BAN (***Оригинално заглавие:*** *Апостолов, И., 1990. Облигационно право, Ч. I, Общо учение за облигацията. София: Издателство на БАН*)

Vasilev, L., (1939). Prehvarlyaneto na dalg v sistemata na balgarskoto grazhdansko i targovsko pravo. Sofia: T. F. Chipev (***Оригинално заглавие:*** *Василев, Л., 1939. Прехвърлянето на дълг в системата на българското гражданско и търговско право. София: Т. Ф. Чипев*).

Ganev, V. (1943). Prehvarlyane i poemane na zadalzhenia. Sofia: Spisanie na Balgarskata akademia na naukite i izkustvata (***Оригинално заглавие:*** *Ганев, В., 1943. Прехвърляне и поемане на задължения. София: Списание на Българската академия на науките и изкуствата*).

Dikov, L. (1934). Kurs po balgarsko grazhdansko pravo. T. III. Obligatsionno pravo. Obshta chast. Sofia: Pridvorna pechatnitsa (***Оригинално заглавие:*** *Диков, Л., 1934. Курс по българско гражданско право. Т. III. Облигационно право. Обща част. София: Придворна печатница*)

Kalaydzhiev, A. (2016). Obligatsionno pravo. Obshta chast. Sofia: s.n. (Калайджиев, А., 2016. (***Оригинално заглавие:*** Облигационно право. Обща част. София: s.n.).

Koev, K. (2016). Zamestvane v dalg po chl. 102, al. 1 ZZD. Sofia: Sibi. (Коев, К., 2016. Заместване в дълг по чл. 102, ал. 1 ЗЗД. София: Сиби).

Kozhuharov, A. (1992). Obshto uchenie za obligatsionnoto otnoshenie. Nova redaktsia prof. d-r O. Gerdzhikov,. Sofia: Sofi-R (***Оригинално заглавие:*** *Кожухаров, А., 1992. Общо учение за облигационното отношение. Нова редакция проф. д-р О. Герджиков,. София: Софи-Р*).

Markov, M. (2006). Obligatsionno pravo. Pomagalo. Sofia: Sibi (***Оригинално заглавие:*** *Марков, М., 2006. Облигационно право. Помагало. София: Сиби*).

Markov, M. (2015). Osobenosti na pravopriemstvoto pri prehvarlyane na savkupnosti. Sofia: Sobstvenost i pravo (***Оригинално заглавие:*** *Марков, М., 2015. Особености на правоприемството при прехвърляне на съвкупности. София: Собственост и право*).

Tadzher, V. (2001). Grazhdansko pravo na NRB. Obshta chast. Dyal 1. Sofia: Sofi- R (***Оригинално заглавие:*** *Таджер, В., 2001. Гражданско право на НРБ. Обща част. Дял 1. София: Софи- Р*).

FRI-2B.311-1-L-03

SPECIFICS OF THE PROCEDURE OF STABILIZATION

Tihomir Nikolov
Association of sindics in Bulgaria,
Deputy Chairman of the Management Board
Tel.: 0899141659
E-mail: tihomirnn@gmail.com

Abstract: *In the report are researched the specifics of the procedure of stabilization as a judicial, separate, voluntary and two-phase procedure, with domination of ex officio principle and of principle of speed. The procedure of stabilization is described as a priority security procedure, which is different from the classical security procedure, settled in Civil Procedure Code. The specifics of the procedure of stabilization are researched connected with the Recommendation of the European Commission about new approach towards the insolvency from 2014 and The Proposal for Direct of European Parliament and of the European Council about frames for preventively restructuring from 2016.*

Keywords: *procedure of stabilization; stabilization plan; rescue plan; out-of-court settlement; creditors; insolvency*

REFERENCES

Grigorov, Gr. (2017). Nesastoyatelnost, Sofia: Sibi (***Оригинално заглавие:*** *Григоров, Гр., 2017. Несъстоятелност, София: Сиби*)

Madanska, N. (2017). Novite polozhenia v Targovskia zakon. Sofia: Trud i parvo (***Оригинално заглавие:*** *Маданска, Н., 2017. Новите положения в Търговския закон. София: Труд и право*).

Stefanov, G. (2018). Targovska nesastoyatelnost. Veliko Tarnovo: Abagar (***Оригинално заглавие:*** *Стефанов, Г., 2018. Търговска несъстоятелност. Велико Търново: Абагар*).

Tyankova, Ya. (2017). Obshta harakteristika na proizvodstvoto po stabilizatsia. V: Sbornik dokladi ot kragla masa na tema „Aktualni problemi na pozitivnoto pravo v konteksta na chlenstvoto na Republika Bulgaria v Evropeyskia sayuz“. Veliko Tarnovo: Faber, 2017 (***Оригинално заглавие:*** *Тянкова, Я., 2017. Обща характеристика на производството по стабилизация. В: Сборник доклади от кръгла маса на тема „Актуални проблеми на позитивното право в контекста на членството на Република България в Европейския съюз“. Велико Търново: Фабер*).

FRI-2B.311-1-L-04

LEGAL NATURE ON THE PLAN FOR STABILIZATION

Teodor Genev
Ministry of Culture, Sofia,
Chief legal advisor
Phone: 0888686888
E-mail: geneff@abv.bg

Abstract: *The legal nature of the stabilization plan as a specific contract is reviewed in the report in opposition to other points of view stated in the doctrine. The explanation of the stated legal nature is accomplished by juxtaposing*

the stabilization plan to the protective formal agreement /concordat/ in force in the past, the agreement /contractual and judicial/ and the recovery plan and amicable settlement executed in insolvency public legal proceedings

Keywords: *stabilization production, stabilization plan, trade, creditor, rehabilitation plan, agreement, outlawed.*

FRI-2B.311-1-L-05

THE AGREEMENT RESULTING FROM MEDIATION ON INDIVIDUAL LABOR DISPUTES

Senior Assist. Prof. Antonina Dimitrova, PhD
Private Law Department, Faculty of Law
"Angel Kanchev" University of Ruse, Bulgaria
E-mail: andimitrova@uni-ruse.bg

Abstract: *The paper reviews the concept of labor disputes, individual labor disputes and non-legal labor disputes as all of them could be subject to mediation. The analysis focuses on the legal force of the mediation settlement adreement and the possibilities whereby it is not legally binding in some cases, as well. Also examines the opportunities of the enforceability of a written legally binding agreement resulting from mediation.*

Keywords: *Mediation Settlement Adreement, Individual Labor Disputes, Non-legal Labor Disputes, Enforcement.*

REFERENCES

Aleksandrov, A. (2013). Zashtita na rabotodatelya sreshtu opitite za zloupotreba s trudovi prava ot rabotnitsite i sluzhitelite. Spisanie "Savremenno parvo", broy 4 (***Оригинално заглавие:*** *Александров, А., 2013. Защита на работодателя срещу опитите за злоупотреба с трудови права от работниците и служителите. Списание: „Съвременно право", брой 4*).

Genova, Ya. (2013). Izvansadebni organi i protseduri za razglezhdane na trudovi i osiguritelni sporove. Spisanie "Yuridicheski svyat", broy 2 (***Оригинално заглавие:*** *Генова, Я., 2013. Извънсъдебни органи и процедури за разглеждане на трудови и осигурителни спорове. Списание „Юридически свят", брой 2*).

Lazarova, V. (2005). Neobhodimost ot promeni v trudovoto zakonodatelstvo otnosno sazdavane na trudovi sadilishta. Spisanie "Targovsko pravo", broy 2 (***Оригинално заглавие:*** *Лазарова, В., 2005. Необходимост от промени в трудовото законодателство относно създаването на трудови съдилища. Списание „Търговско право", брой 2*).

Mingov, E. (2003). Prekratyavane na trudoviya dogovor poradi obshti osnovaniya. Sofia: Izdatelstvo "Sibi" (***Оригинално заглавие:*** *Мингов, Е., 2003. Прекратяване на трудовия договор поради общи основания. София: Издателство „Сиби"*).

Mingov, E. (2003). Obshtite osnovaniya za prekratyavane na trudoviya dogovor IN: Yubileen sbornik v pamet na professor Vitaly Tadzher. Sofia: Izdatelstvo "Sibi" (***Оригинално заглавие:*** *Мингов, Е., 2003. Общите основания за прекратяване на трудовия договор В: Юбилеен сборник в памет на професор Витали Таджер. София: Издателство „Сиби"*).

Mingov, E. (2007). Problemi na pravnata reglamentatsiya na trudovoto vaznagrazhdenie v balgarskoto trudovo parvo. Spisanie "Savremenno pravo", broy 3 (***Оригинано заглавие:*** *Мингов, Е., 2007. Проблеми на правната регламентация на трудовото възнаграждение в българското трудово право. Списание „Съвременно право", брой 3*).

Mingov, E. (2003). Za trudovoto pravootnoshenie i negovata pravna uredba. Spisanie "Savremenno pravo", broy 2 (***Оригинално заглавие:*** *Мингов, Е., 2003. За трудовото правоотношение и неговата правна уредба. Списание „Съвременно право", брой 2*).

Mrachkov, V. (2010). Trudovo pravo. Sofia: Izdatelstvo "Sibi" (***Оригинално заглавие:*** *Мръчков, В., 2010. Трудово право. София: Издателство „Сиби"*).

Mrachkov, V. (2010). Dogovorat v trudovoto pravo. Sofia: Izdatelstvo "Sibi" (***Оригинално заглавие:*** *Мръчков, В., 2010. Договорът в трудовото право. София: Издателство „Сиби"*).

Sredkova, Kr. (1995) Trudovo parvo na Republika Balgariya – lektsii. Trudovi sporove. Sofia: Izdatelstvo "UI Kliment Ohridski" (***Оригинално заглавие:*** *Средкова, Кр., 1995. Трудово право на Република България – лекции. Трудови спорове. София: Издателство „УИ Св. Кл. Охридски"*).

Sredkova, Kr. (2005) Neobhodimi promeni v reda za razglezhdane na individualnite trudovi sporove. Spisanie "Savremenno pravo", broy 6 (***Оригинално заглавие:*** *Средкова, Кр., 2005. Необходими промени в реда за разглеждане на индивидуалните трудови спорове. Списание „Съвременно право", брой 6*).

Staykov, Iv. (2009). Mediatsiya po trudovi sporove. Sofia: Izdatelstvo "Avangard Prima" (***Оригинално заглавие:*** *Стайков, Ив., 2009. Медиация по трудови спорове. София: Издателство „Авангард Прима"*).

FRI-2B.311-1-L-06

THE APPLICATION OF MEDIATION ON COLLECTIVE LABOR DISPUTES

Senior Assist. Prof. Antonina Dimitrova, PhD
Private Law Department, Faculty of Law
"Angel Kanchev" University of Ruse, Bulgaria
E-mail: andimitrova@uni-ruse.bg

Abstract: *The paper reviews legal and non-legal collective labor disputes and the diffrerent oppinions in the Bulgarian legal theory considering the use of mediation. According to some authers mediation is applicable for the individual labor disputes only. Other authors assume that mediation is admissible for collective labor disputes, as well. The research argues that the application of mediation on collective labor disputes is not excluded either by the Settlement of Collective Labour Disputes Act or by the Mediation Act.*

Keywords: *Mediation Settlement Adreement, Collective Labor Disputes, Disputes Settlement.*

REFERENCES

Boyadzhiev, Vl., Sredkova, Kr., Slavcheva, Sn. & Hristov, Ch. Izsledvane na norvezhkiya opit za reshavane na kolektivni trudovi sporove ot trudov sad. URL: http://www.nipa.bg/sites/default/files/GAVAS%20Labour%20court%20BG.pdf (Assecced on 05.02.2015) (***Оригинално заглавие:*** *Бояджиев, Вл., Средкова, Кр., Славчева, Сн., Христов, Ч. Изследване на норвежкия опит за решаване на колективни трудови спорове от трудов съд.*)

Genova, Ya. (2013). Izvansadebni organi i protseduri za razglezhdane na trudovi i osiguritelni sporove. Spisanie "Yuridicheski svyat", broy 2 (***Оригинално заглавие:*** *Генова, Я., 2013. Извънсъдебни органи и процедури за разглеждане на трудови и осигурителни спорове. Списание „Юридически свят", брой 2*).

 Copyrights© http://conf.uni-ruse.bg

Mingov, E. (2007). *Problemi na pravnata reglamentatsiya na trudovoto vaznagrazhdenie v balgarskoto trudovo parvo*. Spisanie "Savremenno pravo", broy 3 (***Оригинално заглавие:*** *Мингов, Е., 2007. Проблеми на правната регламентация на трудовото възнаграждение в българското трудово право.* Списание „Съвременно право", брой 3).

Mingov, E. (2003). *Za trudovoto pravootnoshenie i negovata pravna uredba*. Spisanie "Savremenno pravo", broy 2 (***Оригиално заглавие:*** *Мингов, Е., 2003. За трудовото правоотношение и неговата правна уредба.* Списание „Съвременно право", брой 2).

Mindov, E. (2011). Vaprosi na pravnata uredba na kolektivnite trudovi sporove IN: Aktualni problemi na trudovoto i osiguritelnoto parvo, tom V. Sofia: Izdatelstvo "UI Kliment Ohridski", 205-218 (***Оригинално заглавие:*** *Мингов, Е., 2011. Въпроси на правната уредба на колективните трудови спорове В: Актуални проблеми на трудовото и осигурителното право, том V, 205-218. София: Издателство „УИ Климент Охридски"*).

Mrachkov, V. (2010). Trudovo pravo. Sofia: Izdatelstvo "Sibi" (***Оригинално заглавие:*** *Мръчков, В., 2010. Трудово право. София: Издателство „Сиби"*).

Mrachkov, V. (2010). Dogovorat v trudovoto pravo. Sofia: Izdatelstvo "Sibi" (***Оригинално заглавие:*** *Мръчков, В., 2010. Договорът в трудовото право. София: Издателство: „Сиби"*).

Mrachkov, V. (1992). Kolektivni trudovi sporove i pravoto na stachka. Sofia: Izdatelstvo "UI Kliment Ohridski" (***Оригинално заглавие:*** *Мръчков, В., 1992. Колективни трудови спорове и правото на стачка. София: Издателство „УИ Св. Кл. Охридски"*).

Mrachkov, V. (1994). Komentar na Zakona za urezhdane na kolektivnite trudovi sporove. Sofia: Izdatelstvo "Ciela" (***Оригинално заглавие:*** *Мръчков, В., 1994. Коментар на Закона за уреждане на колективните трудови спорове. София: Издателство „Сиела"*).

Sredkova, Kr. (1995) Trudovo parvo na Republika Balgariya – lektsii. Trudovi sporove. Sofia: Izdatelstvo "UI Kliment Ohridski" (***Оригинално заглавие:*** *Средкова, Кр., 1995. Трудово право на Република България – лекции. Трудови спорове. София: Издателство „УИ Св. Кл. Охридски"*).

Sredkova, Kr. (2004) Urezhdane na kolektivnite trudovi sporove chrez arbitrazh. Spisanie "Yuridicheski svyat", broy 1 (***Оригинално заглавие:*** *Средкова, Кр., 2004. Уреждане на колективните трудови спорове чрез арбитраж. Списание „Юридически свят", брой 1*).

Staykov, Iv. (2009). Mediatsiya po trudovi sporove. Sofia: Izdatelstvo "Avangard Prima" (***Оригинално заглавие:*** *Стайков, Ив., 2009. Медиация по трудови спорове. София: Издателство „Авангард Прима"*).

FRI-2B.311-1-L-07

UNFAIR COMMERCIAL PRACTICES IN DISTANCE CONTRACTS UNDER THE CONSUMER PROTECTION ACT

Ioana Kaneva, PhD student
Faculty of Law,
„Angel Kanchev" University of Ruse
Tel.: 0889995698
E-mail: ykaneva@uni-ruse.bg

Abstract: *Distance contracts quickly spread in the civil market and more consumers are using modern communication tools such as e-mail, Internet, fax, telephone to conclude contracts. It is even possible to conclude a distant contract trough conduct, but under the condition that it is confirmed in writing. However, complaints against unfair commercial practices also increase in number. In order to attract new customers and increase sales, traders use unscrupulous methods that are detrimental to consumers. This report addresses unfair commercial practices that are used in distance contracts under the Consumer Protection Act as well as the legal means to protect consumers' rights when such practices are applied.*

Keywords: *contracts, distance, consumers, protection, unfair, practices*

FRI-2B.311-1-L-08

INSOLVENCY PROCEEDINGS OF MEMBERS OF A GROUP OF COMPANIES

Vladislav Ivanov, PhD student
Faculty of Law,
"Angel Kanchev" University of Ruse
E-mail: vrivanov@uni-ruse.bg

Abstract: *Since the enactment of Regulation 1346/2000 one of the most controversial topics has been the cross-border insolvency proceedings of members of a group of companies. With the new Regulation 2015/848 the European legislator has introduced explicit rules regarding such proceedings. The aim of this article is to analyse these new rules. More specificly – how such proceedings can be initiated, what is the role of the courts of the Member States and the insolvency practitioners and what are the tasks of the coordinator. In addition, a general evaluation of the new rules and whether they contribute to the effectiveness of the proceedings, will be given.*

Keywords: *Regulation 2015/848, cross-border insolvency, group of companies, coordinator*
JEL Codes: *L10, L11*

REFERENCES

Bork, R. & Zwieten, K. (2016). Commentary on the European Insolvency Regulation, Oxford University Press.

Council Regulation (EC) № 1346/2000 of 29 May 2000 on insolvency proceedings

Grigorov, G. (2017). Nesastoyatelnost, Sofia: Izdatelstvo "Sibi" (***Оригинално заглавие:*** *Григоров, Г., 2017. „Несъстоятелност". София: Издателство „Сиби"*.

Regulation (EU) 2015/848 of the European Parliament and of the Council of 20 May 2015 on insolvency proceedings (recast).

Stefanov, G. (2014). Targovska nesastoyatelnost, Veliko Tyrnovo: Izdatelstvo "Abagar" (***Оригинално заглавие:*** *Стефанов, Г., 2014. „Търговска несъстоятелност". Велико Търново: Издателство „Абагар"*).

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.308-1-L

FRI-2B.308-1-L-01

ESSENCE OF THE CONCEPT OF NATIONALSECURITY

Assoc. Prof. Kremena Rayanova, PhD
Department of Criminal Law Sciences and Security,
Law Faculty
"Angel Kanchev" University of Ruse
E-mail: krayanova@uni-ruse.bg

Abstract: *Scientific approach of any phenomenonrequires first of all its conceptual apparatus. To study a phenomenon means forit to be expressed in the concepts' logic. This requirement for methodologicalself-discipline is applied to concepts like "national security" and "nationalsecurity strategy".It's set in the strategy of national security an officially accepted system of strategic priorities, goals and measures in both domestic and foreign policy, which defines the stateof national security and sustainable development of the country in long-term plan.*
Keywords: *national security, strategy, foreign policy, domestic policy*

REFERENCES

Post R. (1985). National Security and the Amended Freedom of Information Act // Yale Law Journal. Vol. 85. 1985. January. P. 410.

Wo1fers A. (1962). Discord and Collaboration. Baltimore: John Hopkins University Press, 1962. P. 147.

Romm J.J. Defining National Security. The Nonmilitary Aspects. New York: Council of Foreign Relations Press. P. 5. Ibid.

Lippmann W. (1943). US Foreign Policy: Shield of the Republic. Boston, 1943. P. 5.

Collins J.M. (1973). Grand Strategy: Principles and Practices, 1973. Definitions of Grand or National Security Strategy and Statecraft // Course 1: Foundations of National Security Strategy. National War College. Washington, DC, 1993. P. 1-4.

Definitions of Grand or National Security Strategy and Statecraft // Course 1: Foundations of National Security Strategy. National War College. Washington, DC, 1993. P. 1–2.

Wolfers A. Op.cit.P. 150.

Berkowitz. (1968). Morton and Bock PG. (eds.). «National Security» in International Encyclopedia. New York: Macmillan Free Press, 1968. P. 40.

Moran T.H. (1990). International Economics and National Security // Foreign Affairs. Vol. 69. Winter 1990/91. P. 74.

Romm J.J. (1993). Defining National Security. New York: Council on Foreign Relations Press, 1993. P. 8.

Department of Defense Dictionary of Military and Associated Terms. JP 1-02. Washington, 2014. P. 182.

Наставление Комитета начальников штабов № 1 от 1987 г. // Foundations of National Security Strategy. National War College. Washington, DC, 1993. P. 2.

Collins J.M. Op. cit. P. 2.

Department of Defense Dictionary of Military and Associated Terms. P. 78.

Goldwater-Nichols Department of Defense Reorganization Act of 1986. Public Law 99-433 99 Congress. Oct. 1, 1986. P. 1074–1075.

FRI-2B.308-1-L-02

THE PERSONAL SECURITY SURVEY

Assoc. Prof. Milen Ivanov, PhD
Department of Criminal Law Sciences and Security,
Law Faculty
"Angel Kanchev" University of Ruse
E-mail: poligon@abv.bg

Abstract: *The manager may delegate activities and functions, but responsibility can not be delegated. One of the most important functions of security structures is to assist the manager in creating and maintaining security. The Personal Security Survey (IPS) is one of the methods used to achieve this warranty. The survey refers to persons occupying sensitive positions and employees of the respective structure, or to persons who will be assigned to positions that require access to classified/sensitive information or materials. When these procedures are legally binding, this activity must be regulated as a type of operative activity.*

Keywords: *Operational inquiry activity, Operative activity Security, Reliability, Investigation, Personnel Management, Classified Information, Sensitive Information, Management.*

FRI-2B.308-1-L-03

CAN MEDIATION BE AN ALTERNATIVE TO THE PUNISHMENT OF IMPRISONMENT

Chief Ass. Svetlin Antonov, PhD
Department of Criminal Law Sciences and Security,
Law Faculty
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82888729
E-mail: spantonov@uni-ruse.bg

Abstract: *The analised question is part of the problem of searching and finding alternatives to the punishment of imprisonment in Bulgaria. The publication examines in critical aspect the not uncommon cases in which mediation is cited as an alternative to imprisonment. The concepts of punishment and mediation are briefly explained, and a comparison between them is drawn. The paper analyses the steps taken in recent years in Bulgaria to implement mediation. Under analisys is also the proposed for public discussion draft law for the application of mediation in criminal cases and based on this analysis several propositions are made for the improvement of the draft law.*

Keywords: *mediation, penalty, criminal liability, imprisonment, criminal policy*

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.308-1-L-04

INTERROGATION AS A METHOD FOR GATHERING NON-MATERIAL EVIDENCE OF A CRIME

Dr. Nevena Ivanova Ruseva, PhD
Department of Criminal Law Sciences and Security,
Law Faculty
"Angel Kanchev" Univesity of Ruse
Tel.: +359889623456
E-mail: nevena_ruseva@abv.bg, nruseva@uni-bg.com

Abstract: *The present exposition aims to present and explain the substance and role of interrogation as a means of proving in the criminal process, with an emphasis on criminally significant aspects of this "verbal" method of gathering evidence. The specificities of the planning, preparation and tactics of investigative action, as well as the individual characteristics which the investigative bodies should have in view of achieving the optimal results of the interrogation, have been considered.*

Keywords: *interrogation, witness, criminal proceedings , methodology, crime*

JEL Codes: *...*

REFERENCES

Vakarelski, I. (1978). Forensic science, Sofiq, N&I

Manev, N. (2006). Criminal Procedural Law, Sofiq, Romina publishing house.

FRI-2B.308-1-L-05

ANONIMOUS SIGNALS AS A COUNTER-CORRUPTION MEASURE AT THE MINISTRY OF INTERIOR

Pavlin Iliev
Department of Criminal Law Sciences and Security,
Law Faculty
"Angel Kanchev" University of Ruse

Abstract: *Recently, corruption is a very modern subject. The Ministry of Interior is the main unit in the investigation of corruption acts, including those carried out by system employees. One of the methods of counteracting corruption, which it handles, is the receipt and processing of anonymous signals on the specially created telephone line, as well as at a designated Internet address. The analysis of the results shows that although the high level of activity of the users and the large number of signals received over the years, the percentage of the confirmed ones, which led to disciplinary sanctions or criminal proceedings against the established perpetrators, is significantly low. In this regard, it is necessary to make appropriate changes to the existing regulation for dealing with alerts, in so far as it concerns the initial processing, evaluation and sending thereof, in cases where the senders have wished to keep the identity confidential.*

Keywords: *Corruption, telephone line, signals of corruption, counteraction to corruption, disciplinary sanctions, criminal proceedings.*

FRI-2B.308-1-L-06

MODERN TECHNOLOGIES FOR IMPROVING THE LEVEL OF SECURITY OF THE ELDERLY PEOPLE

Desislava Viktorova eng.
Academy of Ministry of Interior, Sofia, Bulgaria, PhD Student
Tel.: +359888435235
E-mail: desviktorova@gmail.com

Abstract: *This article explores various solutions in the field of modern technologies for improving and guaranteeing the level of security of the elderly people, which are applied in the country and globally. Special attention is paid to lonely residents and particularly to those living in remote and small settlements. The topic has been selected in view of the growing share of the aging population in the country and the necessity to search for effective solutions for preventing, intercepting and deterring violent crime actions against elderly and potentially endangered people. The aim is to explore the need, the possibility and the readiness for applying modern technologies in the life of the viewed category of people. The results of an experimental sociological study on the subject are being exhibited and commented. Various possible solutions and applications of panic buttons and mobile applications in the everyday life of the so - called "Third age people" are offered, based on a statistical analysis of the criminogenic situation in the country and the international experience in this field. A forecast has been made on the use of the suggested solutions in the country in the medium term.*

Keywords: *Elderly, Security, Prevention, Technology, Criminal offenses, Mobile applications, Panic buttons.*

REFERENCES

Dwayne Smith, M., M. A. Zahn. (1998). Studying and Preventing Homicide, SAGE Publications.

Stankov, M. (2007). Kriminologiya: Vidove prestupnost. Varna (***Оригинално заглавие:*** Станков, М., Криминология: Видове престъпност. Варна).

Central Police Statistics.

National Statistical Institute.

UNODC Homicide Statistics (2013).

https://www.mvr.bg/NR/rdonlyres/1C7B7405-535B-4017-913F-CE5959DC0DDD/0/-Strategy_prevention_2012_2020.pdf

Стратегия за превенция на престъпността (2012-2020) - изтеглен на 13.09.2015 г.

http://eur-lex.europa.eu/legal-content/BG/TXT/?uri=CELEX:12012M/TXT.

http://cdn.eurocom-group.eu/Public?Downloads/0_Personenalarmering_Thuis_folderA4-ENG-v1b_printversie.pdf.

https://www.zembro.com/uk-EN/#how-does-it-work.

http://www.garda.ie/Documents/User/older%20%people%20%strategy%20english.pdf.

http://www.hse.ie/eng/services/list/4/olderpeople/carersrelatives/Community_Support_for_Older_People_html.

http://www.hse.ie/eng/services/list/4/olderpeople/carersrelatives/senalertschemebrochure.pdf.

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.308-1-L-07

PUNISHMENTS IMPOSED FOR HOOLIGANISM IN THE REPUBLIC OF BULGARIA

Ivaylo Ivanov, PhD student
Department of Criminal Law Sciences and Security,
Law Faculty
"Angel Kanchev'' University of Ruse
Tel.: +359876668805
E-mail: imivanov@uni-ruse.bg

Abstract: *The present work is an ambitious task to investigate the punishments imposed for hooliganism in Bulgaria. The study, however, is not limited to the punishments imposed for a hooligan crime, but also traces and analyses the punishments to be imposed on the per petrators of administrative offenses and anti-social acts that have committed hooliganism in accordance with the Decree on the Combating of Small Hooliganism and the Law for Protection of Public order in conducting sports events.*

Keywords: *punishments, hooliganism, crime, administrative violation, anti-social act.*

REFERENCES

Antonov, S. (2016). Legal characteristics of the educational measures contained in the law for combating antisocial demeanors of minors and juveniles. Ruse – Vav: Nauchni trudove na Rusenski universitet, Ruse, tom 55, seria 7, Pravni nauki.

Antonov, S. (2018). Razgranichenie na prevantivnata deynost ot prevantivnata funktsia na nakazatelnata otgovornost. Ruse: Izdatelstvo "Mediateh" – Vav: Sbornik s dokladi ot Konferentsia "Rolyata na kriminologiyata i srodnite i nauki v protivodeystvieto na prestapnostta" – Rusenski universitet "Angel Kanchev", Yuridicheski fakultet.

Aydarov, Y. (2010). Kriminologia. Sofia: Izdatelstvo "Siela".

Bekaria, Ch. (1993). Za prestapleniyata i nakazaniyata. Varna.

Girginov, A. (2009). Nakazatelno parvo na Republika Bulgaria. Obshta chast. Sofia: Izdatelstvo "Sofi-R".

Stankov, B. (2008). Kriminologia. Teoretichni osnovi. Varna: Izdatelstvo "Varnenski svoboden universitet".

Stankov, B. (2007). Kriminologia. Vidove prestapnost. Varna: Izdatelstvo "Varnenski svoboden universitet".

Shopova, P. (2015). Osnovi na prilozhnata kriminologia. Pleven: Izdatelstvo "Mediateh".

http://www.nsi.bg/.

FRI-2B.308-1-L-08

TO THE QUESTION IS THE TRANSFORMATIVE NATURE OF THE RIGHT TO PERSONAL PROTECTION IN THE CRIMINAL PROCESS?

Lyuboslav Lyubenov – PhD Student
Department of Criminal Law and Security,
University of Ruse "Angel Kanchev"
Tel.: +359 883 417447
E-mail: lvlyubenov@uni-ruse.bg

Abstract: *The present report is a modest attempt to answer the question whether the right of personal protection as a complex criminal procedure law has a transformative nature? It is essential to give this answer because, on one hand, it complements, though not entirely, an existing gap in the penal procedural doctrine and, on the other hand, the referencing of the right of personal protection according to the need of undertaking a counterpart behavior for its transposition into legal reality makes the perception of the personal protection of accusations of committing a crime from the point of view of its origin, volume and exercise in criminal proceedings comprehensible and complete. To this end, using the comparative method of scientific dissemination, and by prudently handling the general theories of law and civil law in the area of subjective rights, the report examines whether the right to personal protection has the basic constitutive features of the transforming subjective rights.*

Keywords: *Criminal process, right of personal defence, accused, defendant, transformative right, civil law.*

JEL Codes: *K410, K420*

REFERENCES

Velchev, S. (1924). Rakovodstvo po uglavnia process. Sofia: Pridvorna pechatnica. (***Оригинално заглавие:*** *Велчев, С., 1924. Ръководство по углавния процес. София: Издателство „Придворна печатница".*)

Saranov, N., (1937). Nakazatelnoprocesualno pravo. Sofia: Izdatelstvo „Hudojnika". (***Оригинално заглавие:*** *Саранов, Н., 1937. Наказателнопроцесуално право. София: Издателство „Художникъ".*)

Pavlov, S. (1996). Nakazatelen process na Republika Balgaria- Obshta chast. Sofia: Izdatelstvo "Sibi". (***Оригинално заглавие:*** *Павлов, С., 1996. Наказателен процес на Република България. София: Издателство „Сиби".*) 44-92

Stalev, J. (2012). Balgarsko grajdansko procesualno pravo- deveto preraboteno u dopalneno izdanie. Sofia: Izdatelstvo "Siela". (***Оригинално заглавие:*** *Сталев, Ж., 2012. Българско гражданско процесуално право- девето преработено и допълнено издание. София: Издателство „Сиела".*) 837-838

Tadjer, V. (1972). Grajdansko pravo na Narodna Republica Balgaria- Obshta chast. Sofia: Izdatelstvo "Nauka I izkustvo". (***Оригинално заглавие:*** *Таджер, В., 1972. Гражданско право на Народна република България. София: Издателство „Наука и изкуство".*)

Vasilev, L. (1956). Grajdansko pravo na Narodna republica Balgaria. Sofia: Izdatelstvo "Nauka I izkustvo". (***Оригинално заглавие:*** *Василев, Л., 1956. Гражданско право на Народна република България. София: Издателство „Наука и изкуство".*)

Braikov, S. (2014). Preobrazuvashti iskove I preobrazuvashti sadebni reshenia. Sofia: Izdatelstvo "Sibi". (***Оригинално заглавие:*** *Брайков, С., 2014. Преобразуващи искове и преобразуващи съдебни решение. София: Издателство „Сиби".*) 49-56

Ghiovenda, G., (1950). *Istituzioni di diritto processuale civile*. Napoli: Casa Editrice Dott. Eudenio Jovene.

Seiler, S., (2017). *Strafprozessrecht*. Wien: Facultas.

 Copyrights© http://conf.uni-ruse.bg

FRI-2B.308-1-L-09

PHYSIOLOGICAL AFFECT- MEDICAL, LEGAL AND APPLIED ASPECTS

Nikolay Nikolov
Assist. Prof.
Department of Criminal Law and Security,
University of Ruse "Angel Kanchev"

Nikolina Angelova
Associate Professor in Psychiatry, PhD
Angel Kanchev University of Ruse, BG
E-mail:nangelova@uni-ruse.bg

Abstract: *The paper reviews the affect as a psychological and legal category, focusing on the different treatments of the concept in medical and legal aspects. The emotional state of the person is not a legal concept, but it becomes key relevance in the qualification of the crimes under Art. 118 of the Criminal Code of Republic of Bulgaria. At the same time, the physiological affect is externally visible state due to physical and mental changes in the behavior of the person and is a subject of proof. The burden of the physiological affect is irrelevant to the qualification of the act under Art. 118 et seq. of Criminal Code of Republic of Bulgaria.*

Keywords: *Physiological affect, crime, physical and mental changes*

FRI-2B.308-1-L-10

A COMPARATIVE ANALYSIS OF CRIMINAL OFFENSES AGAINST TAX SYSTEM

Nina Tagarova, Assisstant in Criminal law
Faculty of Law,
"Angel Kanchev" University of Ruse
E-mail: ndzhurova@uni-ruse.bg

Abstract: *Crimes against tax system have long been of an international nature and the criminal compositions could be found in the criminal legislations of a large number of countries. The outbreak of these offenses is important in order to identify the object of the harmful conduct, and according to the social relations concerned, the individual countries build up their criminal defense. The present work aims to analyze the general moments in the tax offenses composition in different countries of Europe, Asia and America. In this way, optimal solutions can be found for Bulgaria based on good practices abroad.*

Keywords: *crime, tax system, taxes, offence, object of the crime, defence*

REFERENCES

Kuznecov, A.P., Legislation regulation of state politics abroad about tax crimes reaction, Business in law, M., 2005 (***Оригинално заглавие:*** Кузнецов, А.П., Законодательная регламентация государственной политики противодействия налоговым преступлениям в странах дальнего зарубежья, Бизнес в законе, М., 2005)

Bequai A, White- collar crime, Lexington, Mass, 1978

Kerzner, D., Chodikoff, D., International Tax Evasion in the Global Information Age, Springer, NY, 2016

Malinovskij, A.A., Criminal law of foreign countries, M, 1998 (***Оригинално заглавие:*** Малиновский, А.А., Уголовное право зарубежных государств, М. 1998)

FRI-2B.308-1-L-11

ABOUT THE OPERATIVE HEARING IN CRIMINAL PROCEEDINGS

Anatoli Bobokov
Judge in District Court Burgas
Email: anatoli_law@abv.bg

Abstract: *With the amendments to the Crininal Code from 2017 the institute of the "operative hearing" is introduced in criminal cases. The purpose of the amendments is to clarify the issues of material and defective violations of procedural rules that might violate the rights of the parties, as well as the assessment of the court panel, whether the case is to be scheduled at a court hearing or the court proceedings be discontinued and the case returned to the prosecutor for the removal of the violations found. This so-called "Ordinary session" represents the initial stage of the hearing before the first instance. The proper resolution of this issue at this stage of the case is extremely important because if the party does not respond to such objections at this meeting, the further objections in the further stages of the case are precluded..*

Keywords: *criminal proceedings, operative hearing.*

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE

FRI-K1-1-QHE-01

THE INTERNALIZATION IN THE NATIONAL QUALITY SYSTEM OF HIGHER EDUCATION

Cor. Mem. Prof. Hristo Beloev, DTSc, DHC mult.
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 465
E-mail: beloev@uni-ruse.bg

Prof. Velizara Pencheva, PhD
"Angel Kanchev" University of Ruse
Tel.: +359 888 293 341
E-mail: vpencheva@uni-ruse.bg

Assoc. Prof. Radoslav Kyuchukov, PhD
"Angel Kanchev" University of Ruse
Tel.: +359 888 860 512
E-mail: rivanov@uni-ruse.bg

Abstract: *The national higher education system is an element of the European and global area of higher education. The National Evaluation and Accreditation Agency (NEAA) is legitimised in the European Higher Education Area through membership of the European Quality Assurance in Higher Education (ENQA) and incorporation into the European Quality Assurance Register (EQAR).*

The internationalization of Bulgarian higher education is realized primarily through the accreditation model - through the implementation of the Standards of quality assurance in the European Higher Education Area (ESG).

The work specifies key approaches to internationalization in the context of higher education quality: policy awareness, innovation and good educational practices in the European and global higher education area; unity of: education - research - innovation; information coherence of education systems and documents; foreign language competencies; mobility of lecturers, students, administrators; joint educational programs; participation in university education and research networks; opening branches and delivering learning from Bulgarian universities abroad; developing the national publishing system with referenced and indexed editions; membership of authoritative scientific and professional organizations, participation in the development of international scientific projects; other activities.

Keywords: *Internationalization , Higher Education, Evaluation, Accreditation, Quality, Assurance, Register, Standard, Guideline, ENQA, EQAR, NEAA.*
JEL Codes: *I23*

REFERENCES

Pencheva V., H. Beloev, M. Fartunova, R. Kyuchukov (2017). New Educational Platforms in Higher Education. 56th Science Conference of Ruse University, 2017; Proceedings of University of Ruse, Quality Assurance in Higher Education Bulgaria, volume 56, book 9, p. 20-24 , SAT-K1-1-QAHE-01 (***Оригинално заглавие:*** *Пенчева В., Х. Белоев, М. Фъртунова, Р. Кючуков. Нови образователни платформи във висшето образование. Научни трудове на Русенския университет „Ангел Кънчев", 2016 г., том 56, Серия 9 „Качество на висшето образование", с. 20-24, SAT-K1-1-QAHE-01*).

Pencheva V., M. Fartunova, R. Kyuchukov (2016). The research universities in the higher technical education in Bulgaria. 56th Science Conference of Ruse University, Ruse, Bulgaria, 2016; Proceedings of University of Ruse - 2016, volume 55, book 9, p. 20-24. (***Оригинално заглавие:*** *Пенчева В., Х. Белоев, М. Фъртунова, Р. Кючуков. Нови образователни платформи във висшето образование. Научни трудове на Русенския университет „Ангел*

Кънчев", 2016 г., том 56, Серия 9 „Качество на висшето образование", с. 20-24, SAT-K1-1-QAHE-01).

Pencheva V., R. Kyuchukov (2015). Development of the paradigm"The quality of higher education in the University of Ruse. Proceedings of University of Ruse - 2015, volume 54, book 9, p. 12-17. (***Оригинално заглавие:*** *Пенчева В., Р. Кючуков. Развитие на парадигмата „Качество на висшето образование в Русенския университет". Научни трудове на Русенския университет, том 54, 2015, с. 12-17* (*ISSN 1311-3321*).

Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). Brussels, Belgium, 2015 (ISBN 978-9-08-168672-3).

NEAA Criteria for assessment and accreditation in accordance Guidelines for Quality Assurance in the European Higher Education Area (ESG). Sofia, NEAA, 2016.

Strategy for development of Higher Education in the Republic of Bulgaria for the 2014 - 2020 period. Sofia, Bulgaria, 2014.

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE-02

THE ACADEMIC VALUES IN THE CHANGING WORLD (THE UNIVERSITY OF RUSE, BULGARIA AS A SIGNATORY OF MAGNA CHARTA UNIVERSITATUM)

Cor. Mem. Prof. DSc Hristo Beloev
Department of Agricultural Technique
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 240
E-mail: hbeloev@uni-ruse.bg

Prof. Velizara Pencheva, PhD
Department of Transport
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 588
E-mail: vpencheva@uni-ruse.bg

Prof. Juliana Popova, PhD
Department of European Studies and International Relations,
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 255
E-mail: jppopova@uni-ruse.bg

Abstract: *The paper presents the contribution of Magna Charta Universitatum as a leading document in the area of academic authonomy to the interpretation of academic values nowadays. The grounds for some changes in the dominating academic values within the frames of globalization are clarified as well as the attitudes towards these changes of the higher education institutions in Europe are presented. The mission and the guiding principles of the University of Ruse are interpreted on the basis of Magna Charta Universitatum.*

Keywords: *academic values, Magna Charta Universitatum.*
JEL Codes: *I23*

REFERENCES

Gudykunst, W., & Mody, B. (2002). Handbook of International and Intercultural Communication. 2nd edn., Sage Publications.

Hofstede, G. (1997). Culture and Organizations. Software of the Mind. Intercultural Cooperation and Its Importance for Survival. New York: Mc Graw-Hill.

Magna Charta Universitatum. URL: http://www.magna-charta.org/magna-charta-universitatum/read-the-magna-charta/the-magna-charta

Martin, J. N., & Nakayama, T. K. (2000). Intercultural Communication in Contexts. Mountain View, California:Mayfield Publications.

Rogers, E. M., & Steinfatt, T. M. (1999). Intercultural Communication. Prospect Heights: Waveland.

FRI-K1-1-QHE-03

REGIONAL DIMENSIONS OF THE UNIVERSITY LEADERSHIP (THE CASE WITH THE UNIVERSITY OF RUSE, BULGARIA)

Cor. Mem. Prof. DSc Hristo Beloev
Department of Agricultural Technique
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 240
E-mail: hbeloev@uni-ruse.bg

Prof. Velizara Pencheva, PhD
Department of Transport
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 588
E-mail: vpencheva@uni-ruse.bg

Prof. Juliana Popova, PhD
Department of European Studies and International Relations,
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 255
E-mail: jppopova@uni-ruse.bg

Prof. Diana Antonova, PhD
Department of Management and Business Development,
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 249
E-mail: dantonova@uni-ruse.bg

Senior Assist. Prof. Svilen Kunev, PhD
Department of Management and Business Development,
"Angel Kanchev" Univesity of Ruse, Bulgaria
Phone: +359 82 888 617
E-mail: snkunev@uni-ruse.bg

Abstract: *The paper presents and analyzes the development and the varied contribution of the University of Ruse, Bulgaria to its regional innovation ecosystem. Four sub-paragraphs are outlined in the paper, divided according to four categories of regional impact: Regional orientation, strategic development and knowledge infrastructure; Education and human capital development; Research, technological development and knowledge transfer; Development of enterprises and entrepreneurship. The vision for the development of the university is defined in accordance with its regional significance and the change of the environment.*

Keywords: *Regional Innovation Ecosystem, Regional Impact, Regional Leadership.*
JEL Codes: *030*

REFERENCES

HEInnovate Reviews. Universities, Entrepreneurship and Local Development. Promoting Innovation and Entrepreneurial Mind-Sets through Higher Education.. (2015). URL: www.mon.bg/ ?h=downloadFile&fileId=7704 (Accessed on 29.09.2017)

Statistical reference book, Bulgaria. (2017).

University of Ruse. URL: www.uni-ruse.bg.

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE-04

INTEGRATION OF HIGHER AND SECONDARY EDUCATION IN BULGARIA

Assoc. Prof. Vyarka Ronkova, PhD
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 461
E-mail: vronkova@uni-ruse.bg

Abstract: *The training of staff with a high level of knowledge, skills and competences and their application in different parts of Europe is one of the main policies of the European Union. This will help and meet the needs of the labor market. Looking through the prism of the educational system, this sets a number of objectives and tasks. Regardless of the economical, political and demographic environment in Bulgaria, the academic values and norms should prevail in the sphere of education. Integration between secondary and higher education is an indisputable prerequisite for achieving the goals set for Bulgarian education.*

Keywords: *Integration, Higher Education, Secondary Education, Training, Quality*
JEL Codes: *I20, I23*

REFERENCES

Ivanova, M. (2008) Higher Education in Bulgaria and Human Resource Management - Perspectives and Challenges in the Context of the European Union Discussion papers (3). pp. 1-43. ISSN 1312-5079 (***Оригинално заглавие:*** *Иванова, М.* (*2008*) *Висшето образование в България и управлението на човешките ресурси - переспективи и предизвикателства в контекста на Европейския съюз. Дискусионни материали = Discussion papers* (*3*). *pp. 1-43. ISSN 1312-5079*)

Kamenov, K., A. Dobreva, V. Ronkova. (2017). Advanced Engineering Methods in Design and Education.// Material Science and Engineeering, IOP Publishing, 2017, No 252, pp. 012033 - 37, ISSN 1757 - 8981. (SJR rank: 1 /2017, IOP)

Ronkova, V., A.Dobreva, K.Kamenov, V.Dobrev, Y.Dimitrov. (2016). Increasing The Efficiency of The Study Process Through Imroving The Communication Activities Between Students And Lecturers.// Management and Sustainable Development,Year 18, Volume 59, 2016, No 4, pp. 77 - 82, ISSN 1311-4506.

URL: www.karieri.bg/biznes_obrazovanie/2245132_vruzka_mejdu_profesionalno_ obrazovanie_visshe

URL: www.navet.government.bg/bg/evropejskata-komisiya-publikuva-monitoring-na-obrazovanieto-i-obuchenieto-za-2017-godina-za-balgariya

FRI-K1-1-QHE-05

THE UNIVERSITY QUALITY SYSTEM OF EDUCATION AND ITS FUNCTIONING IN THE BRANCHES OF RUSE UNIVERSITY

Prof. Stanka Damyanova, DSc
Department of Biotechnology and Food Technologw, Razgrad Branch,
"Angel Kanchev" Univesity of Ruse
Phone: +359882669689
E-mail: sdamianova@uni-ruse.bg

Abstract: *The quality system of Rousse University and its functioning in its branches in Razgrad, Silistra and Vidin is presented. The organization, management and control of the quality education system is considered. In each of the branches there is and works a quality committee, and at the level of department there are quality managers. The branches have a representation in the Quality Council and the University Quality Commission of Education and Accreditation.*

A part of the quality system are the common university audits and surveys conducted in the branches. The quality system for managing and monitoring of the education process is successfully implemented.

Keywords: *Quality system, Audits, Surveys, System for managing and monitoring, Branches.*
JEL Codes: I23

REFERENCES

Beloev, Hr., Pencheva, & V., Popova, J. (2015). Dobri praktiki v Rusenskiya universitet za dialog s biznes sredite i rabota sas studentite. Nauchni trudove na Rusenskiya universitet – 2015, t. 54, s. 9, 93-113.

Grozeva, T. (2015). Vatreshnouniversitetskite normativni dokumenti v polza na kachestvoto na obuchenie v Rusenskiya universitet, Nauchni trudove na Rusenskiya universitet – 2015, t. 54, s. 9, 7-11.

Pencheva, V., Beloev, Hr., Fartunova, M., & Kyuchukov, R. (2017). New educational platforms in higher education. Proceedings of University of Ruse – 2017, v. 56, b. 9, 9-15.

Kunev, S., & Petkov, A. (2016). Pathways for improving the quality of education of business students: examples from University of Ruse "Angel Kanchev". Proceedings of University of Ruse – 2016, v. 55, b. 9, 55-61.

Sakakushev, B., & Gueorguiev, Tz. (2017). The new system of criteria of the NEAA – a step for improving the quality of education. Proceedings of University of Ruse – 2017, v. 56, b. 9, 43-48.

Yordanova, D., & Petrov, O. (2017). Analysis of practical aspects of education in University of Ruse. Proceedings of University of Ruse – 2017, v. 56, b. 9, 95-102.

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE-06

LEARNING SYSTEM FOR EXPERTS FOR INTERNAL AND EXTERNAL EVALUATION OF THE QUALITY OF HIGHER EDUCATION

Cor. Mem. Prof. Hristo Beloev, DTSc, DHC mult.
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 465
E-mail: beloev@uni-ruse.bg

Prof. Velizara Pencheva, PhD
"Angel Kanchev" University of Ruse
Tel.: +359 888 293 341
E-mail: vpencheva@uni-ruse.bg

Assoc. Prof. Radoslav Kyuchukov, PhD
"Angel Kanchev" University of Ruse
Tel.: +359 888 860 512
E-mail: rivanov@uni-ruse.bg

Abstract: *The National System for Quality Assessment of Higher Education is implemented by the National Evaluation and Accreditation Agency (NEAA). Criteria based on Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).*

The system of internal self-evaluation in the procedures for institutional and program accreditation and for project evaluation is realized by expert working groups of the higher schools. Their learning (initial and periodic) creates prerequisites for objective self-assessment of the activities and systems of the higher school. The learning covers the following topics: planning and organizing procedures; forming the composition of the working groups; forming a learning team; pre-service learning (including audits, polls, an awareness campaign). The learning is based on an example program that is in line with the specifics of the higher school.

Independent external evaluation of institutional and program accreditation procedures and ofthe procedures for project evaluation are carried out by experts from expert groups of NEAA. It is advisable to certify these experts on the basis of specialized certification program training. The training covers the following sample activities: pre-selection of candidates; formation of a learning team (members of the Accreditation Council and Standing committees of NEAA); foreign experts; members of the NEAA Quality Assurance Committee; national experts in the field of higher education (including the Ministry of Education and Science); nationally recognized experts on accreditation procedures. An exemplary certification program for training of NEAA experts is proposed. The program contains a general part and a special part according to the areas of higher education.

Keywords: *Higher Education , Evaluation , Accreditation , Standard , Guideline, ESG, Expert .*
JEL Codes: *I20, I23*

REFERENCES

Pencheva V., H. Beloev, M. Fartunova, R. Kyuchukov (2017). New Educational Platforms in Higher Education. 56th Science Conference of Ruse University, 2017; Proceedings of University of Ruse, Quality Assurance in Higher Education Bulgaria, volume 56, book 9, p. 20-24 , SAT-K1-1-QAHE-01 (***Оригинално заглавие:*** *Пенчева В., Х. Белоев, М. Фъртунова, Р. Кючуков. Нови образователни платформи във висшето образование. Научни трудове на Русенския университет „Ангел Кънчев", 2016 г., том 56, Серия 9 „Качество на висшето образование", с. 20-24, SAT-K1-1-QAHE-01*)

Pencheva V., R. Kyuchukov (2015). Development of the paradigm"The quality of higher education in the University of Ruse. Proceedings of University of Ruse - 2015, volume 54, book 9, p. 12-17. (***Оригинално заглавие:*** *Пенчева В., Р. Кючуков. Развитие на парадигмата „Качество на висшето образование в Русенския университет". Научни трудове на Русенския университет, том 54, 2015, с. 12-17* (*ISSN 1311-3321*).

Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). Brussels, Belgium, 2015 (ISBN 978-9-08-168672-3)

NEAA Criteria for assessment and accreditation in accordance Guidelines for Quality Assurance in the European Higher Education Area (ESG). Sofia, NEAA, 2016

Strategy for development of Higher Education in the Republic of Bulgaria for the 2014 - 2020 period. Sofia, Bulgaria, 2014

FRI-K1-1-QHE-07

ANALYSIS OF THE RESULTS OF LECTURERS QUALIFICATION ENHANCING THROUGH PARTICIPATION IN SPECIALIZED COURSES

Prof. Plamen Daskalov, PhD
Department of Automatics and Mechatronics,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 668
E-mail: daskalov@uni-ruse.bg

Assoc. prof. Asen Asenov, PhD
Department of Transport,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 605
E-mail: asasenov@uni-ruse.bg

Assoc. Prof. Tsvetelina Georgieva, PhD
Department of Automation and Mechatronics, Faculty of Electrical Engineering, Electronics and Automation
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 668
E-mail: cgeorgieva@uni-ruse.bg

COR MEM Prof. Hristo Beloev, DTSc DHC mult.
Department of Agricultural machinery,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 240
E-mail: hbeloev@uni-ruse.bg

Prof. Velizara Pencheva, PhD
Department of Transport,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 588
E-mail: vpencheva@uni-ruse.bg

Prof. Diana Antonova, PhD
Department of Management and Business Development,
"Angel Kanchev" University of Ruse
Tel.: +359 82 888 249
E-mail: dantonova@uni-ruse.bg

 Copyrights© http://conf.uni-ruse.bg

Abstract: *Analysis of the results of lecturer's qualification enhancing through participation in specialized courses is presented in the paper. The specialized courses aims to increase lecturer's qualification from different faculties and academic rank at University of Ruse. The results of the questionnaire survey of over 140 lecturers in the target group of the project for eight specialized courses are analysed. The results show that over 70% of the trained are convinced that the courses are useful; subjects and teaching hours are very well chosen, presented and balanced and must keep the main content, structure and organization of the courses.*

Keywords: *Human resources development, Career development of teachers, Lecturer's qualification enhancing*

JEL Codes: *I23*

REFERENCES

Akinnagbe O. M., Baiyeri, K. P., (2011). Training needs analysis of lecturers for information and communication technology (ICT) skills enhancement in Faculty of Agriculture, University of Nigeria, Nsukka. African Journal of Agricultural Research, 6(32), 6635-6646

Doncheva J., (2017). Principles of training in line with the new thinking and action. SEA - Conf., 3 International Conference, Naval Academy, Constanta, 3, 74

Europe 2020, (2010). A strategy for smart, sustainable and inclusive growth. European Commission, Brussels

European Training Foundation, (2009). E-Learning for Teacher Training: from Design to Implementation, Handbook for Practitioners, Office for Official Publications of the European Communities. Luxembourg. Page 10

Harakchiyska Ts., (2010). Learning objects and their role in enhancing the quality of web-based teacher training courses. The 6th International scientific conference eLearnig and software for education, Bucharest

Tasie G. (2011). Competency-based training needs an alysis (TNA): An empirical study of gulf university for science and technology. Kuwait Int. Res. J. Manage. Bus. Stud.,1(2), 041-048

FRI-K1-1-QHE-08

INNOVENTER – AN INTERNATIONAL WAY TO SUPPORT THE SOCIAL ENTREPRENEURSHIP EDUCATION

Daniel Pavlov, PhD
Head of the Entrepreneurship Center
"Angel Kanchev" University of Ruse
Tel.: +359884343132
E-mail: dpavlov@uni-ruse.bg

Abstract: *The aim of this report is to present the basic features of the international project INNOVENTER related to the support of the social entrepreneurship training in South –East Europe and especially the University of Ruse "Angel Kanchev". The tasks of this report are: 1/ to present the main idea behind the project; 2/ to discuss the main outcomes about the elaboration of the training materials and 3/ presentation of previous related experience.*

The project consortium activity is funded under the Transnational Cooperation Programme Interreg V-B Balkan-Mediterranean and is co-funded by the European Union and National Funds of the participating countries.

Keywords: *Social entrepreneurship, training materials, South East Europe, European Qualification Framework.*

JEL Codes: *L31, I20*

REFERENCES

Beloev, H., Pencheva, V., Popova, Y., (2015). Proekt HEInnovate I negoviyat potentsial za razvitieto na kulturata na predpriemachestvo v sistemata na visheto obrazovanie v Bulgaria,

Nauchni trudove na Rusenskiya universitet (***Оригинално заглавие:*** *Белоев, Х., Пенчева, В., Попова, Ю. 2016. Проект HEInnovate и неговият потенциал за развитието на култура на предприемачество в системата на висшето образование в България. Научни трудове на Русенски университет - 2016, том 54, серия* 9) *http://conf.uni-ruse.bg/bg/docs/cp15/9/9-3.pdf*

Doncheva J. (2017). Principles of training in line with the new thinking and action.// sea - Conf., 3 International Conference, Naval Academy, Constanta, No 3, pp. 74, ISSN 2457-144X.

Kotsev, Emil, (2008). Integrirane na individa i grupata v organizatsiyata. A Grup (***Оригинално заглавие:*** *Коцев, Емил, 2008. Интегриране на индивида и групата в организацията, А Груп*).

Pavlov, D., Nizamov, A., Rudawska, J., (2016). Public - private partnerships and other financing models for research and innovation // Development and delivery of the training programme - Towards the Modernization of High Education Institutions in Uzbekistan (MATcHES project). pp. 108-165, PRIMAX, Bulgaria. ISBN 978-619-7242-16-4. , URL: http://www.matches-project.eu/shared/DEV_21_trainings_en.pdf

Peter Schulte, Dragana Živković, Michael Graef, Jaka Vadnjal, Gelu Trisca, Ivan Mihajlović, Daniel Pavlov, Vasilika Kume, Živan Živković, Makedonka Dimitrova, Dževad Zečić, Jasmin Halebić and Adrian Tantau. RESITA NETWORK - Academic entrepreneurship and innovation network of south eastern european universities: an example of successful networking in entrepreneurship and innovation at academic level.// Serbian Journal of Management, 2013, No 8 (1), pp. 117 - 130, ISSN 2217-7159.

Pencheva M., (2016). Razlichiya mezdu pokoleniyata i tehnite proektsii varhu protsesa na uchene. Nauchni trudove na Rusenskiya universitet (***Оригинално заглавие:*** *Пенчева, М., 2016. Различия между поколенията и техни проекции върху процеса на учене, в Научни трудове на Русенски университет - 2016, том 5, серия 5.1*).

Pencheva, M., (2017). Metodicheski aspekti na izsledvane na pokolencheski razlichiya v predpochitaniyata za nachina na uchene. Nauchni trudove na Rusenskiya universitet (***Оригинално заглавие:*** *Пенчева, М., 2017. Методически аспекти на изследване на поколенчески различия в предпочитанията за начина на учене, в Научни трудове на Русенски университет - 2017, том 56, серия 9*)

Zhelezova, D. Action research – an experimental situation for a qualitative pedagogical research.// 15th International Scientific Conference "Knowledge in Practice", Institute of Knowledge Management, Skopje (Macedonia), 2017, No 20, ISSN 1857-923X.

Ploteus Glossary, European Commission, European Union. URL: http://ec.europa.eu/-ploteus/glossary

The Glossary of Education Reform. The Great schools partnership, USA. URL: http://-edglossary.org/blended-learning/ , Last consulted on 27.09.2018

Edu4society. Project number 2016-1-RO01-KA203-024476, funded under ERASMUS+. URL: https://www.uni-ruse.bg/projects

HEInnovate. Initiative of the European Commission, DG Education and Culture and the OECD LEED Forum. https://heinnovate.eu/en/about, Last consulted on 27.09.2018

INNOVENTER, (2018). DEV 3.2.3 Handbook for trainers. https://innoventer.eu/learning-portal/

FRI-K1-1-QHE-09

WEB BASED APPLICATION FOR IMPROVING THE QUALITY OF THE FINANCIAL SERVICE OF STUDENTS IN THE UNIVERSITY OF RUSE

Assoc. Prof. Rumen Rusev, PhD
Department of Informatics and Information Technologies,
"Angel Kanchev" University of Ruse
Phone: +359 82 888 754
E-mail: rir@uni-ruse.bg

Assoc. Prof. Viara Ruseva, PhD
Department of Electric Power Engineering,
"Angel Kanchev" University of Ruse
Phone: +359 882 123 300
E-mail: vruseva@uni-ruse.bg

Vasil Kozov, PhD student
Department of Computer Systems and Technologies,
"Angel Kanchev" University of Ruse"
Phone: +359 82 888 221
E-mail: vkozov@uni-ruse.bg

Ivelin Chalov, Masters in Computer Systems and Technologies
University Computing and Information Services Centre,
"Angel Kanchev" University of Ruse
Phone: +359 82 888 221
E-mail: ichalov@uni-ruse.bg

Abstract: *The paper reviews existing software applications used for the automation of payment processing in the University of Ruse. After a short analysis of the applications, the most necessary functional requirements for the creation of an application for electronic payments in the University of Ruse are identified. A workflow for the application is created. The integration of the application with the already existing software architecture of the university is described. A short analysis of the benefits of such an integration is made. The different methods for making a payment using the system are described - cash desk, bank branch, non-cash - using a POS terminal, and through an external university financial unit. An application for reporting purposes is integrated through services for payment reports, which gives information about the current state of the student payment flow. Conclusions and suggestions for future improvement and further integration of the software product are presented.*

Keywords: *Improving Student Experiences, Electronic Payment, Software.*

Jel codes: *I22, L8*

REFERENCES

Rusev R., V. Ruseva, Tz. Pavlov, K. Krastev, S. Stefanov (2014), Improving student data control through a software application for workflow automatisation, University of Ruse Scientific Works, vol 53, page 76

Ruseva V., R. Rusev, Tz. Pavlov, N. Ivanov (2014), Improving the quality of creating and using study curriculums with the software application e-Curriculum, University of Ruse Scientific Works

Gama, Eric (2005), Design Templates: Elements of object-oriented software for reusability, SoftPress LLC, [4] Microsoft Patterns & Practices. Application Architecture for .NET: Designing

Microsoft Patterns & Practices. Designing Data Tier Components and Passing Data hrough

Tiers. 2002.

Bhadoria R., N. Chaudahari, G. Tomar (2017) The Performance Metric for Enterprise Service Bus (ESB) in SOA system: Theoretical underpinnings and empirical illustrations for information processing, Information Systems, Volume 65, Pages 158-171

Kennedy W., Integrated electronic credit application, contracting and securitization system and method, Us Patent US20060277123A1, 2006-12-07

Von Der Emde M., T. Hoffmann, D. Nowotny, J. Penning (2017), Providing payment software application as enterprise services, US Patent US8671032B2, 2014-03-11 [9] Laplante P., Requirements Engineering for Software and Systems, New York: Auerbach Publications

FRI-K1-1-QHE-10

METHODOLOGY FOR IDENTIFICATION OF TRAINING COURSES EXPENDITURE BY STRUCTURAL DEPARTMENTS

Eng. Miglena Angelova
Department of Faculty of Mechanical and Manufacturing Technology,
"Angel Kanchev" University of Ruse
Phone: +359 899299449
E-mail: mangelova@uni-ruse.bg

Prof. Veselin Grigorov
Department of Faculty of Mechanical and Manufacturing Technology,
"Angel Kanchev" University of Ruse
E-mail: vgrigorov@uni-ruse.bg

Abstract:
The cost of the structural units from the department level to their unification at the faculty level is analyzed. Classification signs for the cost breakdown by groups of direct and indirect ones are justified, including their respective components: labor and non-labor relationships, campus, heat and power maintenance, material maintenance (*materials and services*) *and missions; related costs and those allocated in proportion to their staff. Conceptual contents of rows of table Exell and its columns corresponding to the structural units are defined. Instances of introducing initial information and formulas to determine the values of each cell in the table are presented.*

Keywords: Education costs, Clasification of the costs
JEL Codes: *L10, L11*

REFERENCES

Angelova M., Grigorov V.,"Prerequisites for the economic sustainability of hier education", Publisher: Scholar`s Press, ISBN 978-620-2-31636-1

Angelova M., Grigorov V.," Using the cost of students training for budgetary planning by professional departments, specialties and units" International conference TU – Sofia, Affiliate Sliven

Minchev D., Economic „Approach to the Problems of Higher Education in the Context of the Public Environment in Bulgaria". Lenny Ann, c. 160, Ruse, 2014 ISBN 978-619-7058-32-1

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE-11

THE MAIN FACTORS IN ENSURING ACCESS TO HIGHER EDUCATION FOR YOUNG PEOPLE WITH DISABILITIES

Ms Elena Lisnic – Principal Consultant
Directorate for National Qualifications Framework,
Ministry of Education, Culture and Research of the Republic of Moldova
Tel.: +373 22 233 652
E-mail: e.lisnic.edu@gmail.com

Abstract: *One of the current problems in addressing disability is the educational and social inclusion of young people with disabilities in higher education, which is important in many ways. This article provides theoretical and practical information on various aspects of social and educational inclusion of students with disabilities in higher education institutions of the Republic of Moldova.*

Keywords: *discrimination, accesibility, disability, vocational training, equalization of rights, employment*
JEL Codes: *I21, I24, I29*

REFERENCES

Socio-professional adaptation of people with mental disabilities, (1975). București: Editura Academiei.

Andronache N., Lapoșin E., (2016). Theoretical and practical problems regarding the access of young people with disabilities to university studies. Accessibility of disabled young people to universities, Chișinău: Pontos.

Communication of the European Commission, Bruxelles, 15.11.2010.

Racu S., Rusnac V., (2016). Modern trends of national and international education. Educational and social inclusion of young people with disabilities to higher education, Chișinău: Pontos.

Stempovschi E., Timuș A., (2017). Students with disabilities in university education; Career retention and employment. Accessibility of disabled young people to universities, Chișinău: Pontos.

FRI-K1-1-QHE-12

RESTRAINING PROBLEMS OF YOUNG PEOPLE WITH DISABILITIES IN THEIR IMPLEMENTATION FOR LEARNING IN UNIVERSITIES

Assoc. Prof. Julia Doncheva, PhD
Faculty Natural Sciences and Education,
Department of Pedagogy, Psychology and History,
"Angel Kanchev" University of Ruse
Phone: 082-888 219
E-mail: jdoncheva@uni-ruse.bg

Abstract: *In every society, there are people and groups who for a reason are put at a disadvantage compared to the rest of society. Nonetheless, they are an integral part of it, and they should accept them as equal persons, recognizing their right to be different. This inclusion can be to varying degrees, in a different aspect, depending on the individual characteristics of each one.*

This report discusses the state and attitudes as well as the problems faced by young people with disabilities. On their way to realizing motivation and their interest in adapting to the learning environment and learning. Problems that they or their families pose themselves, problems that the environment or society puts them. Moreover, all this plus their problem with the type of disability they have to overcome, fight achieve success. Do we help them enough?

Let us ask ourselves - how much do we do, do we work to make inclusive education beneficial to children and people with special educational needs? Their efforts are many times more than ours to achieve satisfying results, their fight is daily. They also have the right to happiness that we can all contribute to, is not it?

Keywords: *Effectiveness, Protection Methods, Model, Inclusive education, Yong people with disability*
JEL Codes: *I21, I24, I29*

REFERENCES

Alipieva, D. (2017). Art-therapeutic Techiques for Psychological Support of Gifted Children and Adolescents. IN: Proceedings Book of 1st International Conference on Advances of Science and Art, Istanbul, Turkey.

Al-Obaydi & AL-Bahadli (2017). The Correlation Between EFL College Students'Large Classes and their Academic Performance. Matter: International Journal of Science and Technology Special, Volume 3, Issue 1, pp. 123 – 139, ISSN 2454-5880.

Dineva, V. (2017). Structural Aspects of the Socio - Psychological Training. 56th Annual Science Conference of Ruse University 'Industry 4.0. Business Environment. Quality of Life', Reports Awarded with "Best Paper" Crystal Prize, URL: http://conf.uni-ruse.bg/bg/docs/cp17/-bp/bp-frontMatter.pdf (Accessed on 06.08.2018).

Doncheva J., E. Ivanova (2018). Contemporary Challenges and Expectations of Inclusive Education in the Republic of Bulgaria IN: VI International Scientific Conference 'Contemporary Education – Condition, Challenges and Perspectives', 'Goce Delchev' University - Shtip, Macedonia, Faculty of educational sciences, pp. 152-160, ISBN 978-608-244-525-0.

Doncheva, J. (2017). Principles of training in line with the new thinking and action.// SEA - Conf., 3 International Conference, Naval Academy Romania, Constanta, No 3, pp. 74, ISSN 2457-144X.

Draganova, Ts., P. Daskalov (2009). Izgrajdane na obrazovatelni programni instrumenti v sreda MATLAB, Mejdunarodna nauchna konferencia „Evropejski izmerenia na obrazovanieto I naukata", TK- Iambol, Vol. 7:2, pp. 167 – 171. (***Оригинално заглавие:*** *Драганова, Ц., П. Даскалов* (*2009*). *Изграждане на образователни програмни инструменти в среда на MATLAB, Международна научна конференция „Европейски измерения на образованието и науката", ТК-Ямбол, Vol. 7:2, с. 167 – 171*).

Elias R., S. W. White (2017) Autism Goes to College: Understanding the Needs of a Student Population on the Rise. Journal of Autism and Developmental Disorders 48(7), DOI:

10.1007/s10803-017-3075-7(Accessed on 26.08.2018).

Engels-Kritidis, R. (2015). Inclusiveness for all: the importance of individualization and differentiation for achieving educational progress in children in kindergarten. Journal of Preschool and Elementary School Education, number 2/2015(8), pp. 13-28. Special issue on topic: „Inclusiveness in preschool and elementary school education as a space for diversity“.

Harakchiyska, T. (2011). Training Teachers of Languages to Meet the Needs of Inclusive Classrooms.// Studies about Languages, No 18, pp. 116-121, ISSN 1684-2824.

Ivanova, A., G. Ivanova (2009). Net-generation learning style - A challenge for higher education. Proceedings of the 2009 International Conference on Computer Systems and Technologies and Workshop for PhD Students in Computing, CompSysTech 2009, Rousse, Bulgaria, June 18-19, DOI: 10.1145/1731740.1731818, Source DBLP.

Kacarska, V. (2015). Specialno obrazovanie. Nauchen statut na specialnata pedagogika. St. Zagora: lagen. (***Оригинално заглавие:*** Кацарска, В. (2015). Специално образование. Научен статут на специалната педагогика. Ст. Загора: Лаген).

Konakchieva, P. (2015). Interaktivni modelni tehnologii vav vissheto pedagogichesko obrazovanie, Izd. ‘Slovó’V. Tarnovo. (***Оригинално заглавие:*** Конакчиева, П. (2015). Интерактивни моделни технологии във висшето педагогическо образование, Изд. „Слово”, В. Търново).

Maksymiuk R. A., Al. Jasielska (2015) The Commercialization of parenthood - new aspect of early adulthood. Conference: The 14th European of Psychology Congress, At: Milan, Italy, https://www.researchgate.net/publication/281106538_The_Commercialization_of_parenthood_-_new_aspect_of_early_adulthood (Accessed on 26.08.2018).

National Insurance Institute (***Оригинално заглавие:*** Национален осигурителен институт (НОИ)) URL: *http://www.nssi.bg/images/bg/about/statisticsandanalysis/*analysis/ Analiz_-invalidnost-2010-2016.pdf (Accessed on 26.07.2018).

National Statistical Institute (***Оригинално заглавие:*** Национален статистически институт (НСИ)) URL *http://www.nsi.bg/* (Accessed on 16.08.2018).

Neminska R. (2018) Didactic Modeling in Teaching Students Pedagogues. International Journal of Scientific Research and Management (IJSRM), Volume 06, Issue 06, Pages EL-2018-383-388, URL: www.ijsrm.in ISSN (e): 2321-3418 Index Copernicus value (2015): 57.47, (2016):93.67, DOI: 10.18535/ijsrm/v6i6.el03.

Slavianova L. (2012). Politeness and Indirectness: Speech Stereotypes for Making Requests in Modern English and Bulgarian. Пенза, Русия, Научно- издательский центр Социосфера, pp. 129-142, ISBN 978-5-91990-099-3.

Stoyanov, J. (2014). Using Wordpress, Enviroment for Distance Learning. Conference: Annual University Scientific Conference, Vasil Levski National Academy of Sciences, At: Veliko Tarnovo, Bulgaria, ISSN 1314-1937.

Topolska, E. (2007). Podkrepiashta sreda za deca sas specialni obrazovatelni potrebnosti v detskata gradina. In: „Vazrastnite i decata, decata i vazrastnite”, Sdrujenie „Elisaveta Klark I Penka Kasabova”, Sofia, pp. 124 – 131. (***Оригинално заглавие:*** *Тополска, Е.* (*2007*). *Подкрепяща среда за деца със специални образователни потребности в детската градина. В: „Възрастните и децата, децата и възрастните“, Четвърта международна научно-практическа конференция, Сдружение „Елисавета Кларк и Пенка Касабова“, София, стр. 124 – 131*).

FRI-K1-1-QHE-13

INCREASING THE MOTIVATION FOR LEARNING OF THE STUDENTS FROM THE PROFESSIONAL FIELD MECHANICAL ENGINEERING AT THE UNIVERSITY OF RUSE

Assoc. Prof. Tanya Grozeva, PhD
Department of Repair, reliability, machinery, logistics and chemical technologies and Materials-handling Equipment,
"Angel Kanchev" Univesity of Ruse
Phone: 082 888 258
E-mail: tgrozeva@uni-ruse.bg

Abstract: *The University of Ruse has a rich human and material resources for the implementation of quality education and good practical training for engineers. The accumulated experience at the university in the Bachelor's and Master's educational level from the Professional field Mechanical Engineering provides an opportunity to apply new approaches to the motivation of both future and current students. Recognizing motivation for learning as an extremely important factor aims at improving the students' success in acquiring knowledge to be applied to improve and further develop machine-building in our country.*

Keywords: *motivation for learning, Professional field Mechanical Engineering*
JEL Codes: *I 20*

REFERENCES

Fonselius, J., M.K. Hakala & K. Holm (2001). Evaluation of Mechanical Engineering Education at Universities and Polytechnics, Publications of тhe Higher Education Evaluation Council 14:2001, Helsinki 2001.

Turner J. K. & Patrick H. (2004). Motivational influence on student participation in classroom activities, Teachers College Record , Vol. 106 (9), 09.2004 г.

Vansteenkiste M., Simons J., Lens W., Sheldon KM, & Deci EL, (2004). Motivating learning, presentation and persistence: the synergistic effects of the internal goal contents and autonomysupportive contexts, Journal of Personality and Social Psychology , Vol. 87(2), pp. 246-260.

Hristova, D. (2011). Some views on student motivation for learning. Scientific la-bor of Ruse university, volume 50 (series 1.2), pp. 107-110) (***Оригинално заглавие:*** *Христова, Д.* (*2011*). *Някои виждания относно мотивацията на студентите за учене. Научни трудове на русенския университет, том 50*(*серия 1.2*)*, стр. 107-110*)

Kotseva, T. Baltadzhieva, Mineva Kr. (2013). Academic motivation through the eyes of students and lecturers, Yearbook of BSU Volume XXIH, 2013, p. 160) (***Оригинално заглавие:*** *Коцева, Т. Й. Балтаджиева, Минева Кр.* (*2013*) *Академичната мотивация през погледа на студенти и преподаватели, Годишник на БСУ том XXIX, 2013 г., стр. 160*)

Lecheva, G. (2009). Motivation - a Guarantee for Positive Attitude to the Learning Pro-cess, Scientific labor of ruse university - 2009, vol. 48, 10) (***Оригинално заглавие:*** *Лечева, Г.* (*2009*) *Мотивацията – гаранция за позитивно отношение към учеб-ния процес, научни трудове на русенския университет - 2009, т. 48, сер. 10*)

URL: www.dipku-sz.net/izdanie/422/motivaciyata-za-uchene-i-obrazovatelnata-sreda-mo-odle

https://www.researchgate.net/publication/288455354_izavi_na_motivaciata_za_ucene_na_studentite_manifestations_of_student%27s_motivation_for_learning

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE-14

WHY TO USE AND HOW TO CHOOSE AN INTERACTIVE BOARD

Prof. Angel Smrikarov, PhD
Centre for Innovative Educational Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 889 313 876
E-mail: ASmrikarov@ecs.uni-ruse.bg

Assoc. Prof. Aneliya Ivanova, PhD
Centre for Innovative Educational Technologies
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 887 444 278
E-mail: AIvanova@ecs.uni-ruse.bg

Assoc. Prof. Vanya Stoykova, PhD
Faculty of Technics and Technologies – Yambol
Trakia University, Bulgaria
Tel.: +359 889 740 755
E-mail: vanya.stoykova@trakia-uni.bg

Abstract: *At the beginning of this paper, the authors promote the idea that adapting the educational system to the digital generation should begin with the total replacement of ordinary boards with interactive, as they allow the lessons and lectures presentations to be interactive and multimedia - something that "digital" students are used to and expect to see at school and university. A classification of interactive boards has been made according to the technology used. It has been shown that the optimal option in terms of functionalities and price is an interactive presentation system consisting of a laptop, an ultra-short throw interactive projector and a plain white board. The authors call this option 5 in 1. It is emphasized that for the effective delivery of the learning material using an interactive board it is necessary to follow certain rules. In conclusion, the authors point out that interactive boards and ICT as a whole are only a tool by which lessons and lectures can be made more informative and more attractive, but that teachers and lecturers will retain their leading role.*

Keywords: *digital generation, interactive board, ultra-short throw interactive projector*

JEL Codes: *I20*

REFERENCES

Biró, P. (2011). Students and the interactive whiteboard. Acta Didactica Napocensia, 4(2-3), 29-38.

Mata, L., G. Lazar, I. Lazar. (2016). Effects of study levels on students' attitudes towards interactive whiteboards in higher education. Computers in Human Behavior, 54, 278-289.

Nabeel Al-Qirim. (2011). Determinants of interactive white board success in teaching in higher education institutions. Computers & Education, 56, 827–838.

Stoykova, V., A. Smrikarov, O. Tomov. (2011). Interactivni prezentatsionni sistemi. Avtomatika i informatika, 3, 66-70.*(**Оригинално заглавие:** Стойкова, В., А. Смрикаров, О. Томов. (2011). Интерактивни презентационни системи. Автоматика и информатика, 3, 66-70.)*

Stoykova, V., A. Smrikarov, & A. Ivanova, K. Georgieva. (2013). Adaptirane na sistemata na vissheto obrazovanie kam studentite ot digitalnoto pokolenie. Mezhdunarodna nauchna konferenciya "Tehnika, tehnologii, obrazovanie" ICTTE 2013, Oktomvri 30-31 2013, Yambol, Bulgaria, 523-531. (***Оригинално заглавие:*** *Стойкова, В., А. Смрикаров, & А. Иванова, К. Георгиева. (2013). Адаптиране на системата на висшето образование към студентите от дигиталното поколение. Международна научна конференция "Техника, технологии, образование" ICTTE 2013, Октомври 30-31 2013, Yambol, Bulgaria, 523-531.*

FRI-K1-1-QHE-15

QUALITY OF DISTANCE LEARINING IN ENGINEERING

Assoc. Prof. Tsvetelina Georgieva, PhD
Department of Automation and Mechatronics, Faculty of Electrical Engineering, Electronics and Automation
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 668
E-mail: cgeorgieva@uni-ruse.bg

Principal Assistant Tzvetelin Gueorguiev, PhD
Department of Machine Tools and Manufacturing, Faculty of Mechanical and Manufacturing Engineering,
"Angel Kanchev" University of Ruse, Bulgaria
Phone: +359 82 888 493
E-mail: tzgeorgiev@uni-ruse.bg

Prof. Nikolay Mihailov, DHC
Department of Electrical Power Engineering, Faculty of Electrical Engineering, Electronics and Automation
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 268
E-mail: mihailov@uni-ruse.bg

Assoc. Prof. Boris Evstatiev, PhD
Department of Theoretical and Measuring Electrical Engineering, Faculty of Electrical Engineering, Electronics and Automation
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 371
E-mail: bevstatiev@uni-ruse.bg

Principal Assistant Seher Kadirova, PhD
Department of Electronics, Faculty of Electrical Engineering, Electronics and Automation
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 516
E-mail: skadirova@uni-ruse.bg

Nadezhda Paskova, PhD student
Department of Automation and Mechatronics, Faculty of Electrical Engineering, Electronics and Automation
"Angel Kanchev" University of Ruse, Bulgaria
Tel.: +359 82 888 676
E-mail: npaskova@uni-ruse.bg

Abstract: *The paper reviews existing methods of distance learning which are applied in modern higher education and are supported by international standards for quality. Dirferent forms of disctance learning are presented and compared against each other. The advantages and disadvantages of e-learning, m-learning, and online tutorials are discussed. The ideas of the authors are supported by several examples of distance learning. Recommentadions for the application of distance learning methods in engineering laboratory courses are made.*

Keywords: *Distance Learning, E-Learning, M-Learning, Online Tutorials.*
JEL Codes: *I23, L15*

 Copyrights© http://conf.uni-ruse.bg

REFERENCES

Amani Mubarak Al-Khatir Al-Arim, Distance Learning, ERPA 2014, Procedia - Social and Behavioral Sciences 152 (2014) 82 – 88, doi: 10.1016/j.sbspro.2014.09.159.

Chris Panagiotakopoulos, Antonis Lionarakis, Michalis Xenos, Open and Distance Learning: Tools of Information and Communication Technologies for Effective Learning, Proceedings of the sixth Hellenic European Research on Computer Mathematics and its Applications Conference, HERCMA2003, Athens, Greece, 2003.

https://www.otan.us/content/pdf/dl/WhatIsDL.pdf (Accessed on 03.09.2018).

Jessica Miles, The Cost of Convenience: How Does Distance Education Mix with the Modern-Day Student?, Handbook of Research on Adult and Community Health Education: Tools, Trends, and Methodologies, 2014, 25, DOI: 10.4018/978-1-4666-6260-5.ch017

Ezgi Pelin Yildiz, Aytekin İşman, Quality Content in Distance Education, Universal Journal of Educational Research 4(12): 2857-2862, 2016, DOI: 10.13189/ujer.2016.041220

Hall, B. (1997). Web-based Training. John Wiley & Sons, Inc., New York.

Allen, M.W. (2003). Michael Allen's guide to E-learning. Hoboken, New Jersey: John Wiley & Sons, Incorporated. Ally, M. (Ed.). (2009). Mobile learning: Transforming the delivery of education and Training. Athabasca University Press.

Clark, R.C., and Mayer, R.E. (2003). E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning. San Francisco, California: John Wiley & Sons, Inc.

Quinn, C. (2000). M-learning: Mobile, Wireless and In-Your-Pocket Learning. Line Zine.

Shepherd C. (2001). M is for May be. Tactix: Training and Communication Technology in context. p. 5.

Colazzo, L., Molinari, A., Ronchetti, M., & Trifonova, A. (2003). Towards a Multi-Vendor Mobile Learning Management System. Proceedings for the World Conference on E-learning. Phoenix, USA. Retrieved April 24, 2007.

Polsani, P. (2003). Network learning. In K. Nyinri k. (ed.) Mobile Learning Essay on Philosophy, Psychology and Education, Vienna: Passage vertaq, 2003 139-150, ISBN – 38511656032.

Trifonova, A. (2003). Mobile learning – Review of the literature. Technical Report DIT-03-009, Informatica e Telecomunicazioni, University of Trento.

Sharples, M. (2005). Learning as conversation: Transforming education in the mobile age. Proceedings Seeing Understanding, Learning in the Mobile Age, Budapest, April 28-30,147-152.

https://www.bristol.ac.uk/esu/media/tutorials/design-principles/page_02.htm (Accessed on 03.09.2018).

Behera, S.K. (2013). E- And M-Learning: A Comparative Study, International Journal on New Trends in Education and Their Implications, July, Volume: 4 Issue: 3 Article: 08, p.65.

https://online.illinois.edu/articles/online-learning/item/2017/02/14/10-common-misconceptions-about-online-courses (Accessed on 03.09.2018).

Matasić, Iva; Eret, Lidija; Dumančić, Mario (2011). Example of Personalized m-Learning Mathematic Class ("Mobile Learning") // Pre-Conference Proceedings of the Special Focus Symposium on 11th ICESAKS: Information, Communication and Economic Sciences with Art in the Knowledge Society.

ISO/IEC 2382-36:2013 Information technology — Vocabulary — Part 36: Learning, education and training.

GOST R 52653-2006 Information and communication technologies in education. Terms and definitions.

ISO/IEC JTC 1/SC 36 'Information technology for learning, education and training'. https://www.iso.org/committee/45392/x/catalogue/p/1/u/0/w/0/d/0 (Accessed on 03.09.2018).

FRI-K1-1-QHE-16

CULTURE OF QUALITY OF THE EDUCATION. BORDERS OF LIGHTING DESIGN. BEYOND BORDERS

Assist. Prof. Teodor Kyuchukov, PhD
Agrarian and Industrial Faculty
Department of Industrial Design
"Angel Kanchev" University of Ruse
E-mail: tkyuchukov@uni-ruse.bg
web: www.dorteo.com

Abstract: *Lighting design is a multi-factorial and interdisciplinary area that includes a number of well-developed fields. The architectural lighting, the interior lighting, the advertising and information lighting, the street and road lighting and the transport lighting are leading the development of the contemporary lighting. Regardless of the group to which they belong, lighting systems follow a common frame, with varying domination of functionality and aesthetics, according to the light organization levels: light – lighting – lighting environment. These levels follow a logical hierarchical sequence.*

Light is a "herald" of beauty. Lighting design realizes this human striving for beauty. The education process in the field of lighting design is aimed at harmonizing the lighting environment, where light pollution determines the borders of the lighting design. Light pollution management outlines the range of these borders. Creativity allows a closer view to the "beyond borders" aspect searching for useful innovative solutions.

The culture of the quality of education in lighting design is based on a synchronized behavior of lighting systems, where light pollution management signifies for the level of the lighting environment evolution. The methodology of the lighting design education process includes the following aspects: lighting systems as a pollutant; structure of artificial outdoor lighting in the context of light polution; quality assessment of light pollution in Bulgaria; a classification system of measures to reduce light pollution; compensation of large light load; limitations of light pollution as part of the good lighting practices.

Keywords: *Lighting Design, Borders, Beyond borders, Education, Light pollution; Classification system; Creativity, Innovations, Automotive Lighting Metasculpture, Metamob, Methodology.*

JEL Codes: *I20*

REFERENCE

Kyuchukov T. (2018). Light pollution and its price. The Seventh Balkan Conference on Lighting, Balkan Light 2018., 20-22 september 2018, Varna, Bulgaria, Proceedings, ISSN 2603-414-X, p. 33-41 URL: www.conference.nko.bg.

Kyuchukov T. (2015). Light pollution and lighting design, Ecologica, Beograd, 2015, № 79, Godina XXII, p. 356-350, ISSN 0354-3285.

Kyuchukov T. (2015). A methodology for assessment and management of the light pollution in lighting design, Ecologica, Beograd, 2015, № 78, Godina XXIIp, p. 315-320, ISSN 0354-3285.

Kyuchukov R., T. Kyuchukov (2012). The Light Environment in Bulgaria (Invited paper). BalkanLight 2012, Proceedings, Publisher: Academic mind, Belgrade, 2012, p. 165-171, ISBN 978-86-7466-438-4.

Kyuchukov T. (2012). Fundamentals of light pollution, Energetika, Bulgaria, 2012, 2, p. 25-38 (ISSN 0324-1521). (Кючуков Т., Основи на светлинното замърсяване", Енергетика, България, 2012, № 2, с. 25-38).

LEED v4 for Neighborhood development. LEED ND: Plan; LEED ND: Built Project. U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED), October 1, 2014.

CIE 150 2017, Techical Report. Guide on limitation of the effects of obtrusive light from outdoor lighting installations. CIE, (ISBN:978-3-902842-48-0).

Giacomelli A. C. Nardi, F. Giussani, L. Massetti (2017). Nine years of participatory monitoring of light pollution from Italy. The biometria partecipativa case, Proceedings, XVI Conference on lighting with international participation BulLight-2017 & Second Balkan Youth Conference BalkanLight Junior-2017. Sozopol, Bulgaria, 25-27 May 2017, p. 30-35, ISSN 1314 – 0787.

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE-17

CULTURE OF QUALITY OF THE EDUCATION IN LIGHTING DESIGN. PERSONALIZATION AND INDIVIDUALIZATION

Assist. Prof. Teodor Kyuchukov, PhD
Agrarian and Industrial Faculty
Department of Industrial Design
"Angel Kanchev" University of Ruse
E-mail: tkyuchukov@uni-ruse.bg
web: www.dorteo.com

Abstract: *The culture of quality of the education implies the existence of a synchronization leading to a state of joint work and a subsequent harmonization, which evokes the presence of a synergic interaction. On this basis, the culture of quality of the education in lighting design allows the introduction of two consecutive approaches - personalization and individualisation of the professional development of students studying the specifics of lighting design. Personalization is recognized as a process that forms a set of educational elements designed for a student. Individualization refers to the process of adapting the personal set of elements to the specifics of the particular student. A priority of the professional education standard for good quality education in the field of lighting design is the "Student-centered Learning" (SCL) principle, implemented by the two approaches, in two successive stages. Stages allow for variability. This frame adequately reflects the professional development of the lighting designer as a subject of the contemporary higher education in light-based technical engineering and design.*

The culture of quality of the education in lighting design also involves the evolution of the product lighting solutions designed for their targeted users. An essential element of the good quality lighting design is the personalization and individualisation of the lighting systems, implementing the Human-centered Lighting (HCL) principle. Personalization involves the "modeling" process of a set of light solutions, while the individualisation of the lighting systems allows a "modulation" in the development of a particular solution, incl. light proportioning; light dynamics; positioning of light systems; age preferences, and more. The semantic synergic bridge connecting the functionality to social features, the aesthetics to energy and environmental factors imply the presence of a philosophy that shapes the culture of the quality of the contemporary higher education in lighting design.

Keywords: *Culture of Quality of the Education (CQoE), Synchronization, Harmonization, Education, Personalization, via Modelling, Individualization, via Modulation, Lighting Design, Semantic Synergy Bridge (SSB), Functionality, Aesthetics, Energy efficiency, Ecology, Creativity, Innovations, Automotive Lighting Metasculpture, Metamob.*

JEL Codes: *I20*

REFERENCES

Kyuchukov T. (2018). GMmQ. Generalised Methodical Model of the Quality of Higher Education. The Seventh Balkan Conference on Lighting, Balkan Light 2018., 20-22 september 2018, Varna, Bulgaria, Proceedings, p. 218-233 (ISSN 2603-414-X, URL: www.conference.nko.bg).

Kyuchukov T. (2017). Lighting Technology and System Lighting Design in Industry 4.0 and Internet of Things. 56th Science Conference of Ruse University, 2017; Proceedings of University of Ruse, Quality Assurance in Higher Education Bulgaria, volume 56, book 9, p. 110-115 (***Оригинално заглавие:*** *Кючуков Т. Светлинната технология и системният светлинен дизайн в индустрия 4.0 и Интернет на нещата* ((*IoT*). *56та Научна конференция на Русенския университет, България, 2017; Научни трудове на Русенския университет, Качество на висшето образование, 2017, том 56, серия 9. Качество на висшето образование. с. 110-115, FRI -K1-2-QHE-09* (*ISSN 1311-3321*), URL: www.conf.uni-ruse.bg.

Pencheva V., H. Beloev, R. Kyuchukov, T. Kyuchukov. Lighting and Lighting design in the Context of Standards and Guidelines for Quality Assurance in the European Higher Education area (ESG). Jurnal "Energy Forum", 2017, N 23/24, p. 19-28 (***Оригинално заглавие:*** *Пенчева В., Х. Белоев, Р. Кючуков, Т. Кючуков. Осветлението и светлинният дизайн в контекста на стандарти и насоки за осигуряване на качеството в Европейското пространство за висше образование* (*ESG*). *Сп. „Енергиен форум", 2017, N 23-24, с. 19-28*) (*ISSN 1313-2962*).

Kyuchukov, T. The Synergy Bridge. Energetics and Aestetics in Lighting. “Energy Forum” Journal, 2017, N 23/24, p. 8-18 (***Оригинално заглавие:*** *Кючуков Т. Синергическият мост. Енергетика и естетика в осветлението. Сп.”Енергиен форум”, 2017, №№ 23/24, с. 8-24*) (*ISSN 1313-2962*).

Kyuchukov T. (2017). Methodology of Light Proportioning. XVIth National Conference „BulLight 2017”, Proceedings, Sozopol, Bulgaria, p. 150-152 (***Оригинално заглавие:*** *Кючуков Т. Методология на светлинното пропорциониране. XVIта национална конференция по осветление с международно участие „BulLight 2017”; Сборник доклади* (*Proceedings*). *Созопол, България, 2017, с. 150-152*) (*ISSN 1314-0787*).

Kyuchukov T. (2016). System "Human – Lighting Environment” in the Lighting Design. Energy Forum, Varna, Bulgaria, Proceedings, part two, 2, p. 23-25 (***Оригинално заглавие:*** *Кючуков Т. Системата „Човек – светлинна среда” в светлинния дизайн”, Енергиен форум 2016. Сборник, част Втора, Варна, 2016, с. 23-25*).

Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). Brussels, Belgium, 2015 (ISBN 978-9-08-168672-3).

NEAA Criteria for assessment and accreditation in accordance to the Guidelines for Quality Assurance in the European Higher Education Area (ESG). Sofia, NEAA, 2016.

Strategy for development of Higher Education in the Republic of Bulgaria for the 2014 - 2020 period. Sofia, Bulgaria, 2014.

 Copyrights© http://conf.uni-ruse.bg

FRI-K1-1-QHE-18

TRAINING AND MOBILITY CONDITIONS OF STUDENTS OF THE EXAMPLE OF THE UNIVERSITY OF RUSE AND THE UNIVERSITY OF ULUDAG

Assoc. Prof. Asen Asenov, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 086-821 605
E-mail: asasenov@uni-ruse.bg

Prof. Velizara Pentcheva, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 240
E-mail: vpencheva@uni-ruse.bg

Assoc. Prof. Dr. Gokhan Sevilgen, PhD
Department of Automative Engineering,
Uludag Univesity, Turkey
Phone: +90 (224) 294 2648
E-mail: gsevilgen@uludag.edu.tr

Eng. Ezgi Olgu,
Department of Automative Engineering,
Uludag Univesity, Turkey
Phone: +90 543 475 34 30
E-mail: olguezgi@gmail.com

Assist. Prof. Mihail Milchev, PhD
Department of Transport,
"Angel Kanchev" Univesity of Ruse
Phone: 086-821 231
E-mail: mmilchev@uni-ruse.bg

Abstract: *An analysis of the training at two universities in two neighboring countries was carried out. These are the University of Ruse from Bulgaria and the University of Uludag, Turkey. The two universities train bachelors, masters and PhD students and have an Erasmus student exchange agreement. The way of learning is similar as they are members of the Bologna group. After finishing their education, students are able to get to the labor market to a greater extent. The tendencies in the number of students at the University of Ruse are to hide while at the University of Uludag is opposite. This is due to the large number of young people in Turkey, while in Bulgaria the opposite.*

Keywords: *University of Ruse, University of Uludag, quality of edication, training, Erasmus*

JEL Codes: *I21*

REFERENCES

Europian Commission. The Bologna Process and the European Higher Education Area. 2018. URL: https://ec.europa.eu/education/policy/higher-education/bologna-process_en

European Commission. European Higher Education Area (EHEA)/ Bologna Follow-up Group (BFUG) 48 members. 2018, URL: http://www.ehea.info/pid34250/members.html

Beloev H., V. Pencheva, J. Popova. Regional Impact of the University of Ruse, Bulgaria – National and International Dimensions. Proceedings of University of Ruse - 2017, volume 56, book 9. 2017, URL: http://conf.uni-ruse.bg/bg/docs/cp17/9/9-4.pdf

Lyubenov D., T. Balbuzanov, P. Atanasova-Petrova. Improving the Practical Training of Students in the Faculty of Transport, Proceedings of University of Ruse - 2017, volume 56, book 9. 2017, URL: http://conf.uni-ruse.bg/bg/docs/cp17/9/9-16.pdf

Ministry of Education and Science. Закон за висшето образование. 2018. Обн. ДВ. бр.112 от 27 Декември 1995г., изм. и доп. ДВ. бр.98 от 9 Декември 2016г., https://local.uni-ruse.bg/docs/html/ZVO_2017.htm

NSI. National Statistical Institute. Sofia. 2018. URL: http://www.nsi.bg/bg/content/-7508/%D0%BF%D0%BE-%D0%BC%D0%B5%D1%81%D0%B5%D1%86%D0%B8

Smrikarov A. How to Make a Lecture More Interesting for Students of the Digital Generation. Proceedings of University of Ruse - 2017, volume 56, book 9. 2017, http://conf.uni-ruse.bg/bg/docs/cp17/9/9-13.pdf

The digital education strategy of the University of Oxford. URL: http://www.digital-education.ox.ac.uk/sites/default/files/digitaleducation/documents/media/Digital%20Education%20Strategy%202016-2020%20%28final%29.pdf

Център за развитие на човешките ресурси. Стандарти и указания за осигуряване на качеството в европейското пространство за висше образование.Болонския процес в България. 2018, URL: https://local.uni-ruse.bg/docs/KOA/Europa/STANDARTI_KWO.pdf

Web page of the Univerity of Ruse. Ruse. 2018, URL: https://www.uni-ruse.bg/

Web page of the Karadeniz Technical University. Turkey. 2018, URL: http://www.ktu.-edu.tr/en

FRI-K1-1-QHE-19

CONCEPT OF WEB BASED SOLUTION FOR EVALUATION OF UNIVERSITY GRADUATES EMPLOYMENT

Chief assistant prof. Daniela Yordanova, PhD
Department of Business and Management,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 520
E-mail: dyordanova@uni-ruse.bg

Abstract: *Evaluation of university graduates employment is vital for selfevaluatiopn of educational quality, adaptability of programmes on the labour market and main prerequisite for successful accreditation at institutional and programme level. New generations require novel approach for motivation to keep in touch with university and to provide recent information if job is changed. The paper presents the contents of web-based solution for study of university graduates professional realization, which reflects the changes in attitudes and habits of young people laying on more recent use of internet and web based applications via smartphones. The solution includes web based database and e-CV, which are developed under a project by Career development center of University of Ruse. The content of main e-CV is presented with references to main webportals providing similar services. Advantages of proposed solution are defined. Proposal for application process are developed.*

Keywords: *Study of professional realisation, web based database, tertiary education, Labour market, youth employment, e-CV*

JEL Codes: *F66, F68, I23, I28*

REFERENCES

CV Europass, URL: europass.cedefop.europa.eu

NEAA (2016), Criteria system for institutional accreditation of higher schools, adopted by

the Accreditation Council to NEAA on 20.10.2016, URL: https://www.neaa.government.bg/-images/Criteria_EN/Kriterii_IA_EN.pdf

Pencheva, V., Yordanova, D., Hristov, Ts., Evstatiev, Iv. Mihaylov, M., Angelov, B., Beloev, Iv., (2015)Universitetski informatsionen portal za biznes partnyori – osnova za profesionalno orientirane na vazpitanitsite na Rusenski universitet, Nauchni Trudove na Rusenskiya Universitet - 2015, tom 54, seriya 9 , (***Оригинално заглавие***: *Пенчева, В., Йорданова, Д., Христов, Цв., Евстатиев, Ив., Михайлов, М., Ангелов, Б., Белоев, Ив., Университетски информационен портал за бизнес партньори – основа за професионално ориентиране на възпитаниците на Русенски университет, Научни Трудове на Русенския Университет - 2015, том 54, серия 9*)

Semova M. (2012) Uspeshni proekti, produkti i uslugi za fondonabirane v universitetski alumni klub, Annuaire de lÚniversite de Sofia "St. Kliment Ohridski", Faculte des sciences economiques at de gestion. pp. 273-287. Volume 12. (***Оригинално заглавие***: *Семова М. (2012) Успешни проекти, продукти и услуги за фондонабиране в университетски алумни клуб, Annuaire de lÚniversite de Sofia "St. Kliment Ohridski", Faculte des sciences economiques at de gestion. pp. 273-287. Volume 12.*)

Semova, M., (2014). Fondonabirane chrez universitetskite alumni klubove v balgariya. Uspeshni proekti, produkti i uslugi. Annual of Sofia University, 12. (***Оригинално заглавие:*** *семова, м., 2014. Фондонабиране чрез университетските алумни клубове в България. Успешни проекти, продукти и услуги. Annual of Sofia University, 12.*)

Semova, M.S. and Haralampiev, K.V., 2015. Alumni Relations as Innovative Managerial Approach in Bulgarian Education Sector. Innovations managériales: Enjeux et perspectives, 37, p.193.

Tomlinson, M. (2017). Forms of graduate capital and their relationship to graduate employability. Education+ Training, 59(4), 338-352.

Waite-Jones, J. M., Majeed-Ariss, R., Smith, J., Stones, S. R., Van Rooyen, V., & Swallow, V. (2018). Young People's, Parents', and Professionals' Views on Required Components of Mobile Apps to Support Self-Management of Juvenile Arthritis: Qualitative Study. JMIR mHealth and uHealth, 6(1).

Yordanova, D., Hristov, T., Kirova, M. and Evstatiev, I. (2018). Opportunities for study of university graduates professional realisation by use of web based tools, Proceedings from 18th International Scientific Conference Globalization and Its Socio-Economic Consequences, University of Zilina, Slovak Republic, 10-11 October 2018, under publishing

FRI-K1-1-QHE-20

SHTAKEHOLDERS REQUIREMENTS IN CORESPONDENCE OF NEAA CRITERIA SYSTEM FOR PROGRAMME ACREDITATION: METHODOLOGY FOR ASSESSMENT

Chief assistant prof. Daniela Yordanova, PhD
Department of Business and Management,
"Angel Kanchev" Univesity of Ruse
Phone: 082-888 520
E-mail: dyordanova@uni-ruse.bg

Abstract: *The paper reviews existing system for assessment of stakeholder's requirements in of NEAA criteria system for programme accreditation, based on the case of University of Ruse. An analisys of last criteria Criteria for program accreditation of a professional field provides systematization of required information, which higher education institutions in Bulgaria shall collect from different stakeholders of educational process according 10 predefined Standards in accordance with European Standards and Guidelines for quality assurance in the European higher education area. Main type of questionnaires by stakeholders are differentiated. An analisys of existing system for quality assurance of University of Ruse is implemented and based on gap analisys some additions to methodology for assesment are proposed.*

Keywords: *Quality of higher education, programme accreditation, cryteria, methodology for assessment, questionnaires*

JEL Codes: *I21, I23*

REFERENCES

Avery, C., & Hoxby, C. M. (2004). Do and should financial aid packages affect students' college choices?. In College choices: The economics of where to go, when to go, and how to pay for it (pp. 239-302). University of Chicago Press.

Becker, G. S. (1975). Front matter, human capital: a theoretical and empirical analysis, with special reference to education. In Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education, Second Edition (pp. 22-0). NBER

Chapman, D. W. (1981). A model of student college choice. The Journal of Higher Education, 52(5), 490-505.

Hossler, D., Braxton, J., & Coopersmith, G. (1989). Understanding student college choice. Higher education: Handbook of theory and research, 5, 231-288.

NEEA, Criteria for program accreditation of a professional field /major of the regulated professions in accordance with ESG-Part 1 (1-10) and pursuant to Art. 78, para. 3 of HEA, Adopted by the Accreditation Council to NEAA on 20.10.2016. URL: https://www.neaa.-government.bg/images/Criteria_EN/Kriterii_PN_SRP_EN.pdf

Perna, L. W. (2006). Studying college access and choice: A proposed conceptual model. In Higher Education: (pp. 99-157). Springer, Dordrecht.

University of Ruse, University surveys, (**О*ригинално заглавие***: *Русенски университет „Ангел Кънчев", Университетски анкети*), URL: https://www.uni-ruse.bg/university/-accreditation/univesity-polls

Yordanova, D. (2017). Requirements of employer s concerning university graduates' transferable skills: methodology for assessment, Proceedings of University of Ruse - 2017, Volume 56, Book 9, pp. 88-94. URL: http://conf.uni-ruse.bg/bg/docs/cp17/9/9-14.pdf

 Copyrights© http://conf.uni-ruse.bg

NOVEMBER RESEARCH CONFERENCE IN RAZGRAD

FRI-LCR-KS(R)

FRI-LCR-KS(R)-01

GRAPE EPICARP FLOUR MIXES AS FUNCTIONAL INGREDIENT FOR BAKERY INDUSTRY

Prof. Eng. Liviu Gaceu, PhD Habil.
PhD. student MSc. Oana Bianca Oprea
Researcher gr. II, Livia Apostol PhD
Faculty of Food and Tourism,
Transilvania University of Brasov, Romania
Phone: 0040 268 472222
E-mail: gaceul@unitbv.ro, oprea.oana.bianca@unitbv.ro

Abstract: *Grape skin is considered a valuable wine industry by-product for its antioxidant and antibacterial properties. The grape skin contains useful active compounds, such as polyphenols, flavonols, resveratrol and dietary fiber; it is used in various ways as a nutritional supplement and starts to be considered as new functional ingredient in bakery industry.*

The main aim of this study was to establish the optimum dose of grape skin flour, to be used as a functional ingredient in the bakery product industry, from both chemical and rheological point of view. The experimental study evaluated the functional potential of wheat flour mixed with grape skin flour, in various proportions, by checking the chemical composition and rheological properties of the dough. During experimental research, were determined the content of protein, crude fiber, fat, ash and minerals. Using ^{1}H-NMR spectral technique, the fatty acids composition was determined, especially the concentrations of short-chain saturated fatty acids (C4-C8), di-unsaturated fatty acids, mono-unsaturated fatty acids and long-chain saturated fatty acids (>C8). 1H-NMR spectra were recorded on a Bruker Ascend 400 MHz spectrometer.

The rheological behavior was tested by using the predefined Chopin + protocol on Mixolab equipment. Grape skin flour was mixed with wheat flour at 5, 10 and 15% levels. The study shows that 15% mixing level into the formulation of wheat flour has an acceptable product in terms of rheological parameters, with improved chemical, nutritional and functional properties.

Keywords: *bakery, crude fiber, functional ingredient, grape skin, dough, rheological properties;*

REFERENCES

Ciobanu, G., Ciobanu, C., Domuta, C., Ghergheles, C., Ghergheles, V., Samuel, A.D., Sandor, M., Vuscan, A., Cosma, C., Albu, R., (2011) J. Environ. Prot. Ecol., 12, nr. 4A, p. 2110.

Cioca, G., Bacaita, E. S., Agop, M., Lupascu Ursulescu, C., (2017) Comput. Math. Methods Med., 2017, article ID 5748273.

Dell'agli, M., Di Lorenzo, C., Badea, M., Sangiovanni, E., Dima, L., Bosisio, E., Restani, P., Critical Rev. Food Sci. Nutr., 53, 4, 2013, p. 403.

Pandey, S., Walpole, C., Cabot, P.J., Shaw, P.N., Batra, J., Hewavitharana, A.K., (2017) Biomed. Pharmacother. 89, 515.

Pires, V. C., Gollucke, A.P., Ribeiro, D.A., Lungato, L., D'almeida, V., Aguiar, O.JR., Br. (2013) J. Nutr. 110, 2020.

Popa, C.-V. Cristea, N.-I., Farcasanu, I.-C., Danet, A.F., (2013) Rev. Chim.-Bucharest, 64, nr. 12, 1377.

Sukhamanov, V., Shatalov, V., Petrova, J., Birca, A., Gaceu, L., (2010) LWT Food Sci. Technol., 58, nr. 2, 375.

FRI-LCR-KS(R)-02

PHARMACEUTICAL BIOTECHNOLOGY TODAY – PRINCIPLES, ACIEVMENTS, FUTTURE

Nadezhda Mihaylova, PhD
Tel.: +0359887931439
E-mail: nmivanova@gbg.bg

Abstract: *In the early years of pharmaceutical biotechnology, the main achievement was to produce natural therapeutic molecules in big amount, compared to the original way. The conventional pharmaceutical formulations are relatively simple molecules manufactured mainly through trial and error technique for treating the symptoms of a disease or illness. When the two disciplines - pharmaceuticals and biotechnology come together, they result in many advantages for humankind in terms of healthcare. On the other hand, biopharmaceuticals are complex biological molecules, commonly known as proteins that usually aim at eliminating the underlying mechanisms for treating diseases. Pharmaceutical biotechnology, essentially, is used to make complex larger molecules with the help of living cells. Biotechnological processes and industry contribute to improvement of the human health, for development of precise industrial processes, for production of bio-enzymes destructing the chemical waste as well as in the agriculture for improvement productivity or hardiness of plants and animals. Biotechnology has opened the door to the discovery and development of new types of human therapeutics. Advancements in both cellular and molecular biology have allowed scientists to identify and develop a host of new products. These cutting-edge medicines provide significant clinical benefits, and in many cases, address therapeutic categories where no effective treatment previously existed.*

Keywords: *pharmaceutical biotechnology, biopharmaceuticals, human health, improvement productivity and hardiness of plants and animals.*

REFERENCES

Brar, Deepinder (2006). The History of Insulin,
http://www.med.uni giessen.de/itr/history/inshist.html, accessed June 14, 2006.

Goeddel D.V., Heyneker H.L., Hozumi T. et al. (1979). Direct expression in Escherichia coli of a DNA sequence coding for human growth hormone, Nature 281 (5732): 544–8. doi:-10.1038/281544a0. PMID 386136.

Hartz A.M.S. and B. Bauer. (2011) ABC Transporters in the CNS – An Inventory, Current Pharmaceutical Biotechnology, 12, 656-673, 1389-2010/11, Bentham Science Publishers Ltd.

http://www.phrma.org/media/releases/over-900-biotechnology-medicines-development-targeting-more-100-diseases#sthash.HdP2N6V6.dpuf

Kaufman R.J., Wasley L.C., Furie B.C, Furie B., Shoemaker C.B. (1986). Expression, purification, and characterization of recombinant gamma-carboxylated factor IX synthesized in Chinese hamster ovary cells, J. Biol. Chem. 261 (21): 9622–8. PMID 3733688.

Kayser O. and R.H.MËuller Eds. (2004). Pharmaceutical Biotechnology, Drug Discovery and Clinical Applications. Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim. ISBN: 3-527-30554-8

O'Donnell J.K., Martin M.J., Logan J.S., Kumar R. (1993). "Production of human hemoglobin in transgenic swine: an approach to a blood substitute". Cancer Detect. Prev. 17 (2): 307–12. PMID 8402717.

Peplow M. (2013) Sanofi launches malaria drug production, Chemistry World, Rsc.org. Retrieved 2013-12-17.

Toole J.J., Knopf J.L., Wozney J.M. et al. (1984) Molecular cloning of a cDNA encoding human antihaemophilic factor, Nature 312 (5992): 342–7. doi:10.1038/312342a0. PMID 6438528.

United States Food and Drug Administration (2006). The licensing of the first recombinant DNA-derived clotting factor", http://www.fda.gov/bbs/topics/NEWS/NEW00312.html, accessed June 17, 2006.

Walgate R. (1981). Pituitary slump, Nature 290 (5801): 6–7 nbgcyt5. doi:10.1038-/290006b0. PMID 7207586.

 Copyrights© http://conf.uni-ruse.bg

White G.C., McMillan C.W., Kingdon H.S., Shoemaker C.B. (1989). Use of recombinant antihemophilic factor in the treatment of two patients with classic hemophilia". N. Engl. J. Med. 320 (3): 166–70. doi:10.1056/nejm198901193200307. pmid 2492083.

FRI- LCR -1-CT(R)

FRI- LCR -1-CT(R)-01

PURIFICATION OF BURGAS LAKE THROUGH ZEOLIT TYPE CLINOPTILITY

Todor Mihalev, PhD
Executive Environment Agency
Regional lab Burgas
Phone: +359885940288
E-mail: rl_burgas@abv.bg

Assis. Prof. Gergana Peeva, PhD
Department of Water Technology
Assen Zlatarov University, Burgas, BG
Phone: +359883662345
E-mail: peeva.gergana@abv.bg

Abstract: *This study investigates possibilities of natural zeolite as effective adsorbent of different pollutions in Burgas lake. Mathematical models to calculate the required amount of zeolite are applied. The following indicators were determined: A - calculation of the approximate water volume of Burgas lake, B – determination of total water amount contaminated by discharge sources, C – pollution of the water body, D – calculations for the required amount of zeolite as adsorbent per year.*

It was theoretically determined that water volume of Burgas lake is approximately 46 800 000 m^3. The total amount of polluted water of 46 345 813 m^3/year was calculated. Therefore, the whole water volume is replaced annually. The chemical characterization and qualities of Burgas lake depends of discharging of different industrial pollutants. The total theoretically amount of water pollutions is 7000 t/year. Required quantity of natural zeolite type clinoptilolite to maximum adsorption of available contaminants in Burgas lake of 35000 t/year was determined.

Keywords: *Zeolite, Water purification, Burgas lake..*

REFERENCES

Karayotov, I., Raichevski, S., Ivanov, M., (2011),: Istoria na Burgas. Ot drevnostta do sredata на XX vek, Pechat Tafprint OOD, Plovdiv, ISBN 978-954-92689-1-1, str. 296

URL:https://www.bg.wikipedia.org

Ptizite v Balgaria., (2012). Ornitologichnite vlazni mesta v Burgaskoto ezero.

Godichni dokladi na RIOSV Burgas za (2010, 2013, 2015, 2016)

Mihalev T., (2014), Ochistka stochnih vod selektivnoj adsorbcii, zinka, marganeca, zeleza I inav ammonia iz prirodnah zeolitav, Zurnal nauchnah publikacii aspirantov I doktorantov, br. 5, Rossiskaj Federacia, gr. Kursk

Benev D. (2011). Preminenia prirodnogo celolita- klinoptilolita v ekologii, Science-&Technologies, Technical studies, Volume I, Number 4,

Todor Mihalev, Irena Markovska, Stanka Yaneva (2016). Wastewater treatement with natural zeolite of the clinoptilolote type, Proceedings of University of Russe “Angel Kanchev”, volum 55, serie.10.1, p. 390-394.

 Copyrights© http://conf.uni-ruse.bg

FRI- LCR -1-CT(R)-02

SYNTHESIS AND STUDY OF NI-DOPED WILLEMITE CERAMIC PIGMENTS

Tsvetalina Ibreva, PhD student
Department of Silicate Technology
Assen Zlatarov University, Burgas, BG
E-mail: cvetila@abv.bg

Assoc. Prof. Tsvetan Dimitrov, PhD
Department of Chemistry and Chemical Technologies, Razgrad Branch,
"Angel Kanchev" Univesity of Ruse
E-mail: tz_dimitrow@abv.bg

Prof. Irena Markovska, PhD
Department of Silicate Technology
Assen Zlatarov University, Burgas, BG
E-mail: imarkovska@btu.bg

Abstract: *In this study willemite ceramic pigments, doped with Ni were synthesized. The optimal parameters of the synthesis process have been determined. The willemite is a mineral (zinc silicate) with formula Zn_2SiO_4. For the production of willemite ceramic pigments in the system $NiO–ZnO–SiO_2$ we have used the following main materials: ZnO, NiO and $SiO_2.nH_2O$.*

The willemite ceramic pigments and rice husk ash were studied by X-ray analysis, FT-IR, and scanning electron microscopy . The color of the pigments was determined using a Lovibond Tintometer RT 100 Color.

It has been found that the synthesized pigments are suitable and can be successfully applied in glaze tiles and sanitary ceramics.

Keywords: *pigments, colour, ceramic, willemite, CIELab*

REFERENCES

Maslennikova G.N., & Pishch I.V., (2009). Keramicheskiye pigmenti. Moskva, Stroymaterialy, 223.

Eppler R., (1987). Selecting ceramic pigments, J. Am. Ceram. Soc. Bull., 66, 1600 - 1610

Ozel E., Yurdakul H., Turan S., Ardit M., Cruciani G., & Dondi M., (2010). Co-Doped Willemite Ceramic Pigments: Technological Behaviour, Crystal Structure And Optical Properties, Journal of The European Ceramic Society, 30(16), 3319-3329

Chandrappa G. T. , Ghosh S., & Patil K.C. , (1999). Synthesis and Properties of Willemite, Zn2SiO4, and M2+:Zn2SiO4 (M = Co and Ni), Journal of Materials Synthesis and Processing, 7(5) , 273-279

Llusar M., Forés A., Badenes J., Calbo J., Tena M., & Monrós G., (2001). Colour analysis of some cobalt-based blue pigments, Journal of the European Ceramic Society, 21(8), 1121-1130

FRI-LCR-1-CT(R)-03

FROM FORMAMIDE TO NUCLEIC ACID MONOMERS AND AMINO ACIDS BY USING VARIOUS ENERGY SOURCES

Prof. Venelin Enchev, DSc
Assoc. Prof. Ivan Angelov, PhD
Assist. Prof. Nadezhda Markova, PhD
Assist. Prof. Nina Stoyanova,
Assist. Prof. Sofia Slavova
Institute of Organic Chemistry with Centre of Phytochemistry,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
E-mail: venelin@orgchm.bas.bg (Venelin Enchev), nadya@orgchm.bas.bg (Nadezhda Markova), nstoyanova@orgchm.bas.bg (Nina Stoyanova), sofia@orgchm.bas.bg (Sofia Slavova), ipangelov@gmail.com (Ivan Angelov)

Assist. Prof. Ivayla Dincheva, PhD
Agrobioinstitute, 8 Dragan Tsankov Blvd., 1164 Sofia, Bulgaria
E-mail: ivadincheva@yahoo.com

Prof. Evgeny Krasavin, DSc, Corr. Member Russ. Acad. Sci.
Assist. Prof. Mikhail Kapralov
Joint Institute for Nuclear Research, Joliot-Curie 6, 141980 Dubna, Russia
E-mail: krasavin@jinr.ru (Evgeny Krasavin), mast@mail.ru (Mikhail Kapralov)

Prof. Latchezar Avramov, DSc
Institute of Electronics,
Bulgarian Academy of Science, 72 Tsarigradsko chaussee blvd., Sofia 1784, Bulgaria
E-mail: latchezar.avramov@gmail.com

Abstract: *Determining the conditions allowing an efficient one-pot synthesis of the largest possible panel of prebiotic compounds may shed light on the plausible scenario in which the processes that started life might have occurred. We report experiments describing the syntheses taking place from formamide. The warming of formamide at 170^{0}C and 180^{0}C in vacuo yielded large panels of different compounds: purine and nucleobases* (*adenine, cytosine and uracil*)*, amino acids* (*glycine, alanine*)*, hypoxanthine, pterine, urea and urocanic acid. After that to model the Solar Wind radiation, these probes were irradiated at 25^{0}C with 170 MeV protons generated by the Phasotron facility of the Joint International Nuclear Institute* (*Dubna, Russia*) *as the absorbed dose was 6 Gy. New panel of compounds: timine, 2-methylpurine, 6-methylpurine, 4-methylcytosine and one nucleoside, 6-carboxamido-9-β-D-ribofuranosylpurine, were detected. The mechanisms of the reactions of nucleobases, urea and amino acids formation from formamide were simulated at SCS-MP2 ab initio level.*

Acknowledgements: *Funding of this work by the* National *Science Fund, under Grant DN09/7/2016 is gratefully acknowledged.*

Keywords: *Formamide, Prebiotic compounds*

 Copyrights© http://conf.uni-ruse.bg

FRI–LCR-1-BFT(R)

FRI–LCR-1- BFT(R)-01

PHYTOCHEMICAL EVALUATION AND ANTIBACTERIAL EFFECT OF THE SUCCULENT GRAPTOPETALUM PARAGUAYENSE E.WALTHER

Assist. Prof. Nadezhda Markova, PhD
Institute of Organic Chemistry with Centre of Phytochemistry,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
Tel.: +35929606197
E-mail: nadya@orgchm.bas.bg

Assist. Prof. Maya Zaharieva, PhD
Cor.-Mem. Prof. Hristo Najdenski, DSc
Department of Infectious Microbiology, The Stephan Angeloff Institute of Microbiology,
Bulgarian Academy of Sciences, 26 Akad. G. Bonchev Str., 1113 Sofia, Bulgaria
E-mail: zaharieva26@yahoo.com, hnajdenski@abv.bg

Assist. Prof. Ivayla Dincheva, PhD
Assoc. Prof. Ilian Badjakov, PhD
AgroBioInstitute, Plant Genetic Resources Group,
8 Dragan Tsankov blvd., 1164 Sofia, Bulgaria
E-mail: ivadincheva@yahoo.com, ibadjakov@gmail.com

Assoc. Prof. Petia Genova-Kalu, PhD
National Reference Laboratory "Rickettsia and tissue cultures",
National Centre of Infectious and Parasitic Diseases, Sofia, Bulgaria
E-mail: petia.d.genova@abv.bg

Prof. Venelin Enchev, DSc
Institute of Organic Chemistry with Centre of Phytochemistry,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
E-mail: venelin@orgchm.bas.bg

Abstract: *Due to the increase of antibiotics resistance, there is an urgent need to develop new and innovative antimicrobial agents. Plants have long been investigated among the potential sources of new agents. They contain many bioactive compounds that can be of interest in therapy. Because of their low toxicity, there is a long practice of using dietary plants in the treatment of infectious disease in the world's traditional medicine. It is known that some members of the Crassulaceae family exhibit antiseptic and antibacterial properties. There is information about several health benefits of the succulent plant Graptopetalum paraguayense E. Walther (GP), a species of the same plant family: pancreatic damage and diabetes, ovalbumin-induced asthma, hypertension, alleviation of hepatic disorders, anti-colon cancer activity etc. However, there is no information in the literature on the anti-conjunctivitis, antiviral and antibacterial activity of Graptopetalum paraguayense E. Walther.*

The proposed research is pioneering and is part of project focused on the development of unified theoretical and experimental approaches for active components isolation and antimicrobial activity evaluation of Graptopetalum paraguayense E. Walther. The aim of our study is to evaluate in vitro antibacterial effect and cytotoxicity of Graptopetalum paraguayense E. Walther (Crassulaceae) extracts.

To study the components of Graptopetalum paraguayense the GC-MS analyzes were performed on the extracts obtained from lyofilizated GP leaves. The three main groups of organic compounds were identified by GC-MS analysis in the plant: lipids A (fatty acids, sterols and terpenoids), polar metabolites B (aminoacids, hydroxycarboxylic acids, sugars, and sugar alcohols) and phenolic acids C.

The cell lines Lep, RD64 and green monkey kidney cell line (Vero) were used for cytotoxicity assay (MTT-test) of the whole aqueous extract and the three main fractions. Minimal inhibitory concentrations (MICs) were determined on six bacterial strains according to ISO 20776/1-2006. The biofilm inhibitory effect was evaluated using the protocol of Stepanovic (2000). The cell redox activity of treated bacterial cells was measured after reduction of a terazolium salt.

The aqueous extract of Graptopetalum paraguayense E. Walther as well as fractions C and A have not cytotoxic effect on RD64, Lep cells and Vero cell line. The MIC values ranged between 0.63 and 2.5 mg/ml. The ethylacetate fraction C was characterized by the highest antibacterial effect and strongest reduction of the bacterial metabolic

activity. It also suppressed fully Methicillin-resistant Staphylococcus aureus (MRSA) biofilm formation at a concentration of 1.25 mg/ml and showed a dose-dependent antibiofilm inhibitory effect at lower concentrations.The ethylacetate fraction C showed a promising activity against Staphylococcus aureus strains and MRSA biofilm formations that justifies future investigations of this extract for topical application on wound infections.

Keywords: *Antibacterial activity, Graptopetalum paraguayense E. Walther, cytotoxicity, MTT assay, MRSA, GC/MS.*

Acknowledgements

We acknowledge the financial support of the Bulgarian Fund for Scientific Research under Grant DH19/16.

FRI–LCR-1- BFT(R)-02

ASSESSMENT METHOD FOR HYGIENIC DESIGN IN FOOD INDUSTRY. WATER DRAINAGE AND WATER SAVING STUDY CASE

Prof. Eng. Liviu Gaceu, PhD Habil.
PhD. student MSc. Eng. Oana Bianca Oprea
Nicoleta - Raisa Samoila
Faculty of Food and Tourism,
Transilvania University of Brasov, Romania
Phone: 0040 268 472222
E-mail: gaceul@unitbv.ro, oprea.oana.bianca@unitbv.ro

Abstract: *The new trends in consumer asking — staring from minimally processed and reduced additive/preservative foods, to pre-prepared ready-to-eat/ready-to-cook food—are placing enormous pressures on all food producers, not only to innovate but to remain on top of food safety challenges. Food producers must be sure that their products are protected throughout production by restricting access and controlling conditions for survival of microorganisms, foreign bodies, pests, and chemical contaminants such as lubricants or biocides.*

This paper presents the assessment method used by EHEDG (European Hygienic Engineering and Design Group) and some results obtained, as study case for Water drainage and water saving study case. By using hygienic designed equipment and hygienic facility design into the operation at the same level of importance as Good Manufacturing Practices (GMPs) and Hazard Analysis and Critical Control Point (HACCP) programs, food manufacturers not only significantly reduce potential food safety hazards but can obtain energy, water, and cost-savings.

Hygienic processing is a sine qua non requirement for the food industry. Because of this, food producers devote a lot of time and resources to reach the required cleaning and disinfection level, among other preventive measures.

Keywords: *assessment method in food safety, hygienic design.*

REFERENCES

Directive 98/37/EC of the European Parliament and of the Council of 22 June 1998 on the approximation of the laws of the Member States relating to machinery (Machinery Directive);

Council Directive 89/109/EEC of 21 December 1988 on the approximation of the laws of the Member States relating to materials and articles intended to come into contact with foodstuffs;

Corrosion Resistant Alloys (1983). Publ. No. 3783, Inco Alloys International Ltd, Holmer Road, Hereford, England HR4 9SL;

AISI Steel Products Manual, Stainless and Heat Resisting Steels, December 1974, Table 2-1,pp. 18-19. American Iron and Steel Institute, 1000 16 th St, NW, Washington, DC 20036 . (www.steel.org);

EN 17 440: 2001. Stainless steels – Technical delivery conditions for drawn wire;

Alloy Designations for Cast Stainless Steels. ASTM Standard A781/A781M, Appendix XI.

Steel Founder's Society of America, Cast Metal Federation Bldg., 455 State St, Des Plaines, IL 60016, USA;

J. Holah and H.L.M. Lelieveld, Hygienic Design of Food Factories, Woodhead Publishing Series in Food Science, Technology and Nutrition, ISBN: 978-1-84569-564-4;

EHEDG Yearbook 2017/2018; www.ehedg.org.

FRI–LCR-1- BFT(R)-03

SENSORY EVALUATION AND RHEOLOGICAL BEHAVOIR OF YOGURTS PREPARED FROM GOAT MILK

Assoc. Prof. Cristina Popovici, PhD
Faculty of Food Technology, Technical University of Moldova
E-mail: cristina.popovici@toap.utm.md,
Tel.: +37368241547

Prof. Mihaela Adriana Tita, PhD
Faculty of Agricultural Sciences, Food Industry and Environmental Protection,
”Lucian Blaga” University of Sibiu, Romania
E-mail: tita_mihaeladriana@yahoo.com

Renata Brînza, Young Scientist
Faculty of Food Technology, Technical University of Moldova
E-mail: renata.brinza1@gmail.com

Abstract: *Goat milk production is a dynamic and growing industry that is fundamental to the wellbeing of hundreds of millions of people worldwide and is an important part of the economy in many countries. The aim of the present paper is scientific development of new technologies for goat milk yogurt with improved sensory and rheological properties. Set-yoghurts produced from goat and cow milk were examined fresh and after cold storage for sensory quality and rheological properties, in accordance with the ISO* (*Official Methods of Analysis of AOAC International*)*. Rheological investigations consisted of the determination of apparent viscosity and drawings of flow curves. In comparison to cow milk yoghurt, goat milk yoghurt had a better consistency, and was more acceptable sensorialy. The apparent viscosity of goat milk yoghurt was more and its flow curve was characterized by a smaller hysteresis loop area than these of yoghurts from cow milk. The reported results on sensory evaluation and rheological behavoir of goat milk yoghurt could guide industry to develop new goat dairy products with improved quality.*

Keywords: *sensory attributes, rheology, goat milk, youghurt, health benefits.*

REFERENCES

Caleja, C., Barros, L., Antonio, A.L., Carocho, M., Oliveira, M.B.P.P., Ferreira, I.C.F.R. (2016). Fortification of yogurts with different antioxidant preservatives: A comparative study between natural and synthetic additives. Food Chemistry, Vol. 210, 262–268.

Innocente, N., Biasutti, M., Rita, F., Brichese, R., Comi, G., Iacumin, L. (2016). Effect of indigenous Lactobacillus rhamnosus isolated from bovine milk on microbiological characteristics and aromatic profile of traditional yogurt. LWT–Food Science and Technology, Vol. 66, 158–164.

Popovici, C., Tița, A.M. (2018). Goat milk yoghurt with high biological properties. Proceedings of the 4th International Conference - New Trends on Sensing-Monitoring-Telediagnosis for Life Sciences, 30 August-1 September 2018, Transilvania University of Brasov, Romania, 83.

Saha, B.N.P., Vasiljevica,, T., McKechnieb S., Donkor, O.N. (2016). Physicochemical, textural and rheological properties of probiotic yogurt fortified with fibre-rich pineapple peel powder during refrigerated storage. LWT – Food Science and Technology, Vol. 65, 978-986.

Yangilar, F. (2013). As a Potentially Functional Food: Goats’ Milk and Products. Journal of Food and Nutrition Research, Vol. 1 (4), 68-81.

SAT–LB-P-1-CT(R)

SAT–LB-P-1-CT(R)-01

ESTIMATION OF ADSORPTION ABILITY OF RICE HUSKS BASED BIO-CHAR FOR NICKEL IONS REMOVAL FROM AQUEOUS SOLUTIONS

Assoc. Prof.Velyana Georgieva, PhD
Department of Physical Chemistry and Organic Chemistry,
Assen Zlatarov University, Bulgaria
Phone: +359886767583
E-mail: velyana_topalska@btu.bg

Senior Assist. Prof. Lenia Gonsalvesh, PhD
Central Scientific Research Laboratory,
Assen Zlatarov University, Bulgaria
Phone: 0887397558
E-mail: lenia_gonsalvesh@abv.bg

Senior Assist. Prof. Mariana Tavlieva, **PhD**
Department of Physical Chemistry and Organic Chemistry,
Assen Zlatarov University, Bulgaria
E-mail: mariana_tavlieva@btu.bg

Senior Assist. Prof. Ganka Kolchakova, PhD
Department of Material Science and Technology,
Assen Zlatarov University, Bulgaria
E-mail: gkolchakova@gmail.com

Abstract: *Bio-char prepared from rice husks (B-RH), an agricultural waste by-product, has been used for the adsorption of Ni(II) from aqueous solution.A six kinetic models including pseudo-first order kinetic model, pseudo-second order kinetic model, Ritchie's-second order kinetic model, Weber-Morris intra-particle diffusion model, Elovich kinetic model and diffusion-chemisorption kinetic model were applied to determine the kinetic data and reveal adsorption mechanism. The calculated kinetic parameters of the investigated models were used for plotting the corresponding non-linear curves showing the goodness of the fit of kinetic models to obtained experimental data. The best fit were exhibited by the the pseudo-second order, Ritchie's-second-order and Weber-Morris kinetic models.*

Keywords: *Adsorption, rice husks based activated carbon, Ni (II) removal, kinetic parameters.*

REFERENCES

Cempel, M., Nikel, G. (2006). Nickel: A Review of Its Sources and Environmental Toxicology, Polish J. Environ. Stud.,15(3), 375–382.

Georgieva, V., Tavlieva, M., Genieva, S., Vlaev, L. (2015). Adsorption kinetics of Cr(VI) ions from aqueous solutions onto black rice husk ash. J. Mol. Liq., 208, 219–226.

Gillette, B. (2008). Nickel named «Allergen of the Year». ACDS adds to list of substances warranting more attention, Dermat. Times, 4, 15–16.

Gonsalvesh, L., Marinov, S.P., Gryglewicz, G., Carleer, R., Yperman, J. (2016). Preparation, characterization and application of polystyrene based activated carbons for Ni(II) removal from aqueous solution. Fuel Processing Technology, 149, 75–85.

International Agency for Research on Cancer. (1990). IARC monographs on the evaluation of carcinogenic risks to humans. In: Chromium, nickel and welding, vol. 49. Lyon: IARC.

 Copyrights© http://conf.uni-ruse.bg

Madrakian, T., Moein, R., Bahram, M. (2008). Simultaneous spectrophotometric determination of zinc and nickel in water samples by mean centering of ratio kinetic profiles. Journal of the Chinese Chemical Society, 55, 788–793

Schaumlöffel, D. (2012). Nickel species: Analysis and toxic effects. J. Trace Elem. Med. Biol., 26, 1–6.

Singha, B. Das, S. K. (2011). Biosorption of Cr(VI) ions from aqueous solutions: Kinetics, equilibrium,thermodynamics and desorption studies. Colloids and Surfaces B: Biointerfaces, 84, 221–232.

Vlaev, L. (2014). Adsorption and Catalysis, Burgas, Baltika-2002.

SAT–LB-P-1-CT(R)-02

SYNTHESIS OF 1-AMINO AND 1-NITROSO DERIVATIVES OF 2',3'-DIHYDRO-2H,5H-SPIRO[IMIDAZOLIDINE-4,1'-INDENE]-2,5 DIONE

Prof. Neyko Stoyanov, PhD
Department of Chemistry and Chemical Technologies,
"Angel Kanchev" University of Ruse, Razgrad Branch, Bulgaria
Tel.: +35984266034
E-mail: nstoianov@uni-ruse.bg

Assoc. Prof. Marin Marinov, PhD
Department of General Chemistry,
Agricultural University – Plovdiv, Bulgaria
Phone: +35932654305
E-mail: m_n_marinov@abv.bg

Abstract: *This article describes the synthesis of 1-amino-2',3'-dihydro-2H,5H-spiro[imidazolidine-4,1'-indene]-2,5-dione and 1-nitroso-2',3'-dihydro-2H,5H-spiro[imidazolidine-4,1'-indene]-2,5-dione. These compounds were prepared by the interaction of 2',3'-Dihydro-2H,5H-spiro[imidazolidine-4,1'-indene]-2,5-dione with hydrazine hydrate and sodium nitrite. The products obtained were characterized by physicochemical parameters, elemental analysis, IR and NMR spectral data.*

Keywords: *Synthesis, 2',3'-Dihydro-2H,5H-spiro[imidazolidine-4,1'-indene]-2,5-dione, 1-Amino-2',3'-dihydro-2H,5H-spiro[imidazolidine-4,1'-indene]-2,5-dione, 1-Nitroso-2',3'-dihydro-2H,5H-spiro[imidazolidine-4,1'-indene]-2,5-dione*

REFERENCES

Nagasawa, H. T., Elberling, J. A. & Shirota, F. N. (1973). 2-Aminoadamantane-2-carboxylic acid, a rigid, achiral, tricyclic α-amino acid with transport inhibitory properties. Journal of Medicinal Chemistry, 16 (7), 823-826.

Sarges, R. (1978). Hydantoin derivatives as therapeutic agents. US Patent 4,117,230.

Sarges, R., Schnur, R. C., Belletire, J. L., Peterson, M. J. (1988). Spiro hydantoin aldose reductase inhibitors. Journal of Medicinal Chemistry, 31 (1), 230-243.

SAT–LB-P-1-CT(R)-03

COMPOSITE COATINGS BASED ON CHROME WITH VARIOUS CARBON MODIFICATIONS

Prof. Evgenii Vinokurov, Doctor of Sc.
Department of Analytical Chemistry, head of the Scientific
and Educational Center for Advanced Materials and Technologies,
D. Mendeleyev University Chemical Technology of Russia, Moscow
E-mail: vin-62@mail.ru

Senior Lecturer, Roman Grafushin, PhD applicant
Department of Standardization and computer graphics,
D.Mendeleyev University Chemical Technology of Russia, Moscow
E-mail: r-std@yandex.ru

Vera Makhina, PhD student
Department Innovative materials and corrosion protection, D.Mendeleyev
University Chemical Technology of Russia
E-mail: frau.mahina@yandex.ru

Abstract: *The mechanical properties of composite coatings with chromium matrix obtained from a standard plating solution in the presence of dispersed phase of graphite (GK-3, C-1, spectrally pure graphite (SPG)) and nanosized carbon additives (ultradispersed diamonds (DNA), nanotubes of "Taunit-M" series) have been studied. The results of coating parameters investigation are presented: roughness (Ra), fracture toughness (K_{Ic}) and friction coefficient (f).*

Keywords: *composite electrochemical coating; chrome-graphite; cromium-carbone; roughness; friction coefficient; fracture toughness.*

REFERENCES

Grafushin, R. V., Vinokurov, E. G., Makhina, V. S., Burukhina, T. F. (2018). Electrodeposition and physico-mechanical properties of composite coatings based on chrome with various carbon modifications. Galvanotekhnika i obrabotka poverkhnosti, 26(2), 26-32.

Narayan, R., Narayana, B. (1981) Electrodeposited Chromium-Graphite Composite Coatings. Electrochemical science and technology, 128(8), 1704-1708.

Soro, J. M, Lelait, L., Duysen, J. C., Zacharie, G., Stebut, J. (1998). Influence of substrate roughness and lateral spacing on morphology and brittleness of different Cr-C PVD coatings. Surface and Coatings Technology, 98, 1490-1496.

Vinokurov, E. G., Orlova, L. A., Stepko, A. A, Bondar, V. V. (2014). Synthesis and properties of inorganic composite coatings containing detonation nanodiamonds. Protection of Metals and Physical Chemistry of Surfaces, 50(4), 480-483.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-CT(R)-04

INTERACTIVE TRAINING FOR STUDENTS IN TECHNICAL SAFETY AND DISASTER PROTECTION FOR DETERMINING A CHEMICAL OUTBREAK OF INFECTION

Sabina Nedkova, PhD
Department " Technologies, materials and material science",
Faculty ot Technical Science
University "Prof.d-r Asen Zlatarov", Burgas, Bulgaria
Tel.: +359 898238132
E-mail: sabina_nedkova@abv.bg

Plamena Atanasova, PhD
Department " Technologies, materials and material science",
Faculty ot Technical Science
University "Prof.d-r Asen Zlatarov", Burgas, Bulgaria
Phone: +359 888520858
E-mail: pl.veleva@abv.bg

Abstract: *The course "Technical Safety and Disaster Protection" enables students to acquire knowledge about the nature and technogenic disasters, created by natural or technological sources, technological failures and risk situations on a different scale. For keeping it interesting for students and easy for understanding, it is necessary to continuously incorporate new teaching / learning methods in the way it is presented, such as the interactive methods. In this way, learners are able to acquire the necessary competences and information and to use it in decision-making and implement it in practice.*

The paper presents the introducing of the interactive training for students from the Technical faculty of University "Prof. d-r Asen Zlatarov" Burgas, in their education in "Technical Safety and Disaster Protection" for determining of a chemical outbreak of infection of hydrogen sulphide. The experiment we describe includes comparison between the paper and computerbased method for determination of the infected by the chemical zone, development of a strategy for evacuation of the people and palnning of desactivation event.

Keywords: *Interactive learning, Chemical Outbreak, Technological safety*

REFERENCES

Atanasova, Pl., Nedkova S., Pipeva P. Survey on the opinion of students in university "Prof. d-r Asen Zlatarov", Bourgas on the education on "Technical safety", Union of scientists-Stara Zagora, volume V, number 4, Technical studies, Science and Technologies 74-78, 2015.

Strategia za razvitie na visshoto obrazovanie v Republika Bulgaria za perioda 2014-2020.

Georgieva, S., Interaktivnoto obuchenie-kak i zashto, Nauchni trudove na Rusenskia Universitet-2013, tom 52, seria 6.2, 94-99

Atanasova Pl., Nedkova S., Naydenova S. Theoretical model of formation of a zone of chemical contamination with hydrogen sulphide as a result of an accident, Proceedings of the University of Ruse-2016, volume 55, book 10.1, 92-96

ALOHA software, URL: https://www.epa.gov/cameo/aloha-software, (Accessed on 15th of March 2018)

SAT–LB-P-1-CT(R)-05

INVESTIGATION OF INFLUENCE OF ZEOLITE BASED SPENT CATALYST ON DEPOSITED IN THE COMPOSITION OF CHAMOTTE REFRACTORY MASS

Senior Asist. Prof. Ganka Kolchakova, PhD
Departament of Material Science and Technology,
"Prof. Dr. Assen Zlatarov" University, 8010 Burgas, Bulgaria
E-mail: gkolchakova@gmail.com

Milena Ivanova, PhD
Departament of Silicate Technology,
"Prof. Dr. Assen Zlatarov" University, 8010 Burgas, Bulgaria
E-mail: milena_ivanova@abv.bg

Assos. Prof. Louiza Dimowa, PhD
Institute of Mineralogy and Crystallography,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
E-mail: louiza.dimowa@gmail.com

Abstract: *A processed amount of zeolite based catalyst in the amount of 20 and 40 mass % of chamotte refractory mass is imported. It is established that diffractograms doesn't register an amorphous phase due to the increase in the content of mullite and crystobalite, while the quantity of quartz remains almost constant.*

It is found that the waste catalyst in the composition of the refractory mass doesn't improve the contact between the particles, the porosity is increased, micropores are formed, which explains the decrease of the apparent density.

Keywords: *Spent catalyst, Refractory, Chamotte, Mullite, Crystobalite*

REFERENCES

Acchar, W., Rulff, B. M. & Segadães, A. M. (2009). Effect of the incorporation of a spent catalyst reject from the petroleum industry in clay products. Applied Clay Science, 42(3–4), 657–660.

Acchar, W., Vieira, F. A. & Segadães, A. M. (2006). Using ornamental stone cutting rejects as raw materials for red clay ceramic products: properties and microstructure development. Materials Science and Engineering, 435, 606–610.

Chandra N., Agnihotri N., Bhasin, S., & Khan, A. F. (2005). Effect of addition of talc on the sintering characteristics of fly ash based ceramic tiles. Journal of the European Ceramic Society, 25, 81–88.

Garcia, L. P., Cruz, R. & Braganca, S. R. (2012). Waste catalyst as raw material in alumina–silica refractories. Journal of Materials: Design and Applications, 226(4), 286–292.

Lee, W.,. Boccaccini, A. R.,. Labrincha, J. A., Leonelli, C., Drumond, C. H. & Cheeseman, C. R. (2007). Green engineering: ceramic technology and sustainable development, American Ceramic Society Bulletin, 86, 18–25.

Raupp–Pereira, F., Ribeiro, M. J., Segadães, A. M. & Labrincha, J. A. (2007). Extrusion and property characterization of waste based ceramic formulations. Journal of the European Ceramic Society, 27, 2333–2340.

Segadães, A. M. (2006). Use of phase diagrams to guide ceramic production from wastes. Advances in Applied Ceramics Journal, 105, 46–54.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-CT(R)-06

A STRATEGY, BASED ON A COMBINATION OF DIRECT AND INDIRECT METHODS FOR IMMOBILIZATION OF NATURAL COMPOUNDS ON BIOPOLYMERS

Assist. Prof. Stanislav Bayryamov, PhD
Department of Repairing, Reliability, Mechanisms, Machines, Logistic and Chemical Technologies, "Angel Kanchev" Univesity of Ruse
Phone: +359 82 888 228; +359 82 888 459
E-mail: sbayryamov@uni-ruse.bg

Abstract: *Many substances (e.g. antibacterial and aromatic) are used in the modern textile industry in order to prevent the development of pathogenic microorganisms on the textile fabric and the human body, as well as to preserve the aroma for a long time. In order to provide greater resistance of the substances to the fibrilar biopolymers forming the textile, the immobilization process is used. Different strategic decisions are possible to implement the immobilization process – by direct immobilization; by previously microencapsulation of the substance or a combination of both methods to supplement efficacy. Unfortunately, in direct immobilization, especially when it is purely physical, much of the material is lost over time. To preserve the action of the substance for an even longer time, the microencapsulation process is used. However, microencapsulation does not retain the substance for too long on the textile, because of the inefficiency of the microencapsulation process itself due to loss of core material, to the capsule in some cases, and also if the capsule is integrated into the fiber on a purely physical basis. For this reason, the author chooses a combination of direct and indirect immobilization of the substance onto the biopolymer filament fiber using a chemical method via a linker, hoping thus to increase the retention time of the incorporated substance on the fabric textile. This paper represents the original strategy, based on combining a direct and indirect method for immobilization of natural compounds on biopolymers.*

Keywords: *Biopolymers, Textiles, Fragrances, Microencapsulation, Immobilization, Natural Compounds, Oils.*

REFERENCES

Rodrigues, S.N., Martins, I.M., Fernandes, I.P., Gomes, P.B., Mata, V.G., Barreiro, M.F., Rodrigues, A.E. (2009). Scentfashion®: Microencapsulated perfumes for textile application Chemical Engineering Journal, 149, 463–472

Cheng, S. Y., Yuen, C. W. M., Kan, C. W., Cheuk, K. K. L. (2008). Development of cosmetic textiles using microencapsulation technology. Res. J. Text. Appar. 12, 41–51.

Thies, C. (2000). Microencapsulation. Kirk-Othmer encyclopedia of chemical technology. John Wiley & Sons, Inc.

Booth, G. (2000). Dyes, General Survey. Wiley-VCH.

Yusop, F. H. M., Manaf, S. F. A., Hamzah, F. (2017). Preservation of Bioactive Compound via Microencapsulation. Chemical Engineering Research Bulletin, 19, 50-56.

Dawson, Tim (2011). Progress towards a greener textile industry. Coloration Technology, 128, 1–8.

Aloys, H., Korma, S. A., Tuyishime, M. A., Chantal, N., Abdelmoneim, H. Ali, Abed, S. M., Ildephonse, H. (2016). Microencapsulation by Complex Coacervation: Methods, Techniques, Benefits, and Applications - A Review. American Journal of Food Science and Nutrition Research, 3(6), 188-192.

Wheeler, E. (1928). The Manufacture of Artificial Silk With Special Reference to the Viscose Process. New York: D. Van Nostrand company.

Bartell, F. E., Cowling, H. (1942). "Depolymerisation of Cellulose in Viscose Production". Industrial & Engineering Chemistry. 34 (5), 607–612.

SAT–LB-P-1-CT(R)-07

MICROENCAPSULATION OF NATURAL COMPOUNDS. A LITERATURE REVIEW

Assist. Prof. Stanislav Bayryamov, PhD
Department of Repairing, Reliability, Mechanisms, Machines, Logistic and Chemical Technologies,
"Angel Kanchev" Univesity of Ruse
Phone: +359 82 888 228; +359 82 888 459
E-mail: sbayryamov@uni-ruse.bg

Abstract: *Microencapsulation of natural compounds plays an important role in the contemporary cosmetic, pharmaceutical and textile industry. The process increases the compound resistance towards the unfavorable conditions and consists in coating of a core matherial with a shell material to produce microcapsules. This paper reviews existing methods of microencapsulation of natural compounds, classified into three general groups: chemical, physic and physico-chemical. On the basis of the literature review the author chose a strategy of physico-chemical microencapsulation, based particularly on a coacervation (and eventually sol-gel) method, due to its easy performance, unexpensive equipment and environmental cleanliness. The prepared microcapsules with natural substances and in particular the microencapsulated perfumes increase the stability of components, impregnated on a fibrilar biopolimer applied in textile industry.*

Keywords: *Microencapsulation, Immobilization, Biopolymers, Natural Compounds, Fragrances, Oils, Textiles.*

REFERENCES

Tyagi, V. V., Kaushik, S. C., Tyagi, S. K., Akiyama, T. (2011). Development of phase change materials based microencapsulated technology for buildings: a review. Renew Sustain Energy Rev. 15, 1373–91.

Rodrigues, S. N., Martins, I. M., Fernandes, I. P., Gomes, P. B., Mata, V. G., Barreiro, M. F., Rodrigues, A. E. (2009). Scentfashion®: Microencapsulated perfumes for textile application Chemical Engineering Journal, 149, 463–472

Soper, J. C., Kim, Y. K., Thomas, M. T. (2000). Method of encapsulation flavours and fragrances by controlled water transport into microcapsules, U.S. Patent 6,045,835.

Jyothi, N. V. N., Prasanna, P. M., Sakarkar, S. N., Prabha, K. S., Ramaiah, P. S., Srawan, G. (2010). Microencapsulation techniques, factors influencing encapsulation efficiency. J Microencapsul., 27, 187–97.

Ghosh, S. K. (2006). Functional Coatings and microencapsulation: a general perspective. Functional coatings. Wiley-VCH Verlag GmbH&Co. KGaA, 1–28.

Poncelet, D. (2006) .Microencapsulation: fundamentals, methods and applications. In: Blitz J, Gun'ko V, editors. Surface chemistry in biomedical and environmental science. Netherlands: Springer, 23–34.

Salaün, F. (2011). The manufacture of microencapsulated thermal energy storage compounds suitable for smart textile. In: Marco Aurelio Dos Santos B, editor. Developments in heat transfer.

Huang, H-J., Yuan, W-K., Chen, X. D. (2006). Microencapsulation based on emulsification for producing pharmaceutical products: a literature review. Dev. Chem. Eng. Miner. Process. 14, 515–44.

Cheng, S. Y., Yuen, C. W. M., Kan, C. W., Cheuk, K. K. L. (2008). Development of cosmetic textiles using microencapsulation technology. Res. J. Text. Appar. 12, 41–51.

Thies, C. (2000). Microencapsulation. Kirk-Othmer encyclopedia of chemical technology. John Wiley & Sons, Inc.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-CT(R)-08

STRUCTURAL FEATURES OF CHALCONES AS ANTIPARASITIC AGENTS

Assist. Prof. Nadezhda Markova, PhD
Assoc. Prof. Daniela Batovska, PhD
Prof. Venelin Enchev, DSc
Institute of Organic Chemistry with Centre of Phytochemistry,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
E-mail: nadya@orgchm.bas.bg, danibat@orgchm.bas.bg, venelin@orgchm.bas.bg

Shweta Sinha, MSc
Prof. Rakesh Sehgal, MD
Department of Medical Parasitology, Post Graduate Institute of Medical Education and Research, Chandigarh, India
E-mail: sinhashweta.27@gmail.com, sehgalpgi@gmail.com

Abstract: *The proposed research is important in the era of increasing drug resistance of parasites such as Plasmodium, Leishmania, Giardia etc, which are, a substantial cause of mortality and morbidity in the world, especially in poor and developing countries. A series of 24 selected chalcones were initially synthesized and submitted to in vitro screening for their activities against the following protozoas: Plasmodium falciparum* (*causing malaria*)*, Giardia lamblia* (*causing giardiasis*) *and Trichomonas vaginalis* (*causing trichomoniasis*)*. The cytotoxicity profile of HeLa cell line was evaluated through MTT viability assay and the selectivity index* (*SI*) *was calculated. The compounds sintesized are in four different groups depends of the substituents in two molecule moieties A and B* (*A-CH=CH-CO-B*)*. The results revealed that all the chalcons displayed antiparasitic activity against P. falciparum, G. lamblia and T. vaginalis. The most active compound against P. falciparum is chalcon with 3',4',5'-Trimethoxy- and 3,4-Dimethoxyphenyl-substituents in A and B, respectively. This chalcon was found to be a lead compound with the highest potency* (IC_{50} *= 0.11 μg/ml*)*, as compared to licochalcone* (IC_{50} *=1.43 μg/ml*) *and with high selectivity index of 83.93. The* IC_{50} *values of all compounds were in the range 0.10-0.40 μg/ml for MRC-2* (*chloroquine sensitive*) *and 0.14-0.55 μg/ml for RKL-9* (*chloroquine resistant*) *strains of P. falciparum. Chalcon with 2',5'-Dimethoxy- and 4-*CF_3*- substituents in A and B, respectively was found to be most active against T. vaginalis* (IC_{50} *= 7.7 μg/ml*) *while the indolyl chalcon with 4'-Iodo-substituent in A is the most active compound against G. lamblia* (IC_{50} *= 4.8 μg/ml*)*.*

Quantum-chemical calculations at B3LYP/MIDI level were used to study the molecular geometry and electronic structure of the selected derivatives. The energy gap between the highest occupied molecular orbital (*HOMO*) *and lowest unoccupied molecular orbital* (*LUMO*)*, HOMO−LUMO gap* (*ΔHOMO−LUMO*)*, total dipole moment and number of electrons have been calculated using the theoretical computations to reflect the chemical reactivity and kinetic stability of compounds.*

Keywords: *Chalcones, in vitro, DFT, antiparasitic activity.*

Acknowledgements

We acknowledge the financial support of the Bulgarian Fund for Scientific Research under Grant DHTC/India 01/5.

SAT–LB-P-1-CT(R)-09

KINETIC STUDTY OF THE THERMAL DECOMPOSITION OF CHITOSAN-ZEOLITE NANOCOMPOSITE

Assos. Prof. Dilyana Todorova Zvezdova, PhD
Department of Preclinical and Clinical Subjects,
Prof. Assen Zlatarov University
Prof. Jakimov str.1, 8010 Burgas, Bulgaria
E-mail: dzvezdova@yahoo.com

Ass. Prof. Nedelcho Mitev Nedelchev
Department of Computer and Information Science
Prof. Jakimov str.1, 8010 Burgas, Bulgaria
E-mail: nnedelchev@btu.bg

Abstract: *A decomposition thermal analysis of of chitosan-zeolite nanocomposite synthesized by the authors was conducted was carried out. A TG comparison between the product and the raw was made. The destruction processes of a complex solid-phase were researched.* The correlation dependencies for approximate solution of Arrhenius integral were applied to the study of kinetics of destruction. *It was used a genetic algorithm and complex criterion to assess the quality of the decomposition.. The results led us to assume that the real adequacy were achieved by decomposition of five subprocessess. The results of identification were analyzed.*

Keywords: *Non-isothermal kinetic study, Chitosan-zeolite nanocomposite, Complex processes, Genetic algorithm Complex method, Decompositio nto the single sub-model.*

REFERENCES

López, F., Mercê A., Alguacil, F., López-Delgado A. (2007). A kinetic study on the thermal behaviour of chitosan. Journal of Thermal Analysis and Calorimetry, 91, (Published Online).

Nam, Y. S., Park, W. H., Ihm, D. S., Hudson, M. (2010). Effect of the degree of deacetylation on the thermal decomposition of chitinand chitosan nanofibers. Carbohydrate Polymers, 80 291–295.

Nedelchev, N. M., & Zvezdova, D. T. (2013). New approach to differential methods for non-isothermal kinetic studies. Oxidation communications, 36(4), 1175-1194.

Wanjun T., Cunxin, W., C. Donghua, C. (2005) Kinetic studies on the pyrolysis of chitin and chitosan. Polymer Degradation and, 87, 389-394.

Zeng, L., Qin, C., L. Wang, L., Li, W. (2011) Volatile compounds formed from the pyrolysis of chitosan. Carbohydrate Polymers, 83 p. 1553–1557.

Zvezdova, D. T.,(2012). Non-isothermal kinetic study of thermal degradation of chitin from shrimp shell from black sea. Annual Assen Zlatarov University, Bulgaria Bourgas, 41, 1, p.31-41.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-CT(R)-10

STRATEGIC DESIGN OF INTEGRATED SUPPLY CHAINS FOR PRODUCTION AND DISTRIBUTION OF BIOETHANOL

Eng. Yunzile Dzhelil, PhD-student
Institute of Chemical Engineering
Bulgarian Academy of Sciences
Tel.: +35902979-3275
E-mail: unzile_20@abv.bg

Eng. Evgeniy Ganev, PhD-student
Institute of Chemical Engineering
Bulgarian Academy of Sciences
Tel.: +35902979-3275
E-mail: evgeniy_ganev@abv.bg

Prof. Boyan Ivanov, DcS
Institute of Chemical Engineering
Bulgarian Academy of Sciences
Tel.: +35902979-3275
E-mail: bivanov1946@gmail.com

Assoc. Prof. Dragomir Dobrudzhaliev, PhD
Institute of Chemical Engineering
Bulgarian Academy of Sciences
Tel.: +35902979-3275
E-mail: dragodob@yahoo.com

Abstract: *Today, energy consumption is steadily rising, but global energy sources are in limited reserves of oil, gas and coal. Their extraction and exploitation is often associated with a number of negative environmental impacts by obtaining the conventional fuels needed for the heat and transport systems. Continuous alternative sources of energy, constantly renewable sources, low prices and ecologically clean are sought. Biofuels are alternative sources of petroleum fuels. The article presents a method for optimal design of resource-supply chains for production and distribution of bioethanol. The problem of optimal design and management of ROV is formulated as a task of mixed linear programming under the criterion of minimum capital and operating costs. The optimal scheme of the resource - insurance chain for the territory of the Republic of Bulgaria is presented*

Keywords: *Bioethanol, fermentation, Supply chain,*

REFERENCES

Ivanov B., Dzhelil Y., Ganev E., Dobruzhaliev D. (2018). Multi-period model of sustainable integrated hybrid first and second generation bioethanol supply chains, Chemical Engineering Transactions, Volume 70,

McCarl B., Meeraus A., Eijk P., Bussieck M., Dirkse S., Steacy P., (2008). McCarl Expanded GAMS user Guide Version 22.9. GAMS Development Corporation.

SAT–LB-P-1-CT(R)-11

KINETICS OF MAGNESIUM ALUMINIUM SPINEL SYNTHESIS IN THE COMPOSITION OF WASTE ALUMINIUM SLAG - MGO

Senior Asist. Prof. Ganka Kolchakova, PhD
Departament of Material Science and Technology,
"Prof. Dr. Assen Zlatarov" University, 8010 Burgas, Bulgaria
E-mail: gkolchakova@gmail.com

Milena Ivanova, PhD
Departament of Silicate Technology,
"Prof. Dr. Assen Zlatarov" University, 8010 Burgas, Bulgaria
E-mail: milena_ivanova@abv.bg

Senior Asist. Prof. Mariana Tavlieva, PhD
Departament of Physical Chemistry and Organic Chemistry
"Prof. Dr. Assen Zlatarov" University, 8010 Burgas, Bulgaria
E-mail: mariana_tavlieva@yahoo.com

Assos. Prof. Velyana Georgieva, PhD
Departament of Physical Chemistry and Organic Chemistry
"Prof. Dr. Assen Zlatarov" University, 8010 Burgas, Bulgaria
E-mail: velyana_topalska@yahoo.com

Abstract: *The kinetics of magnesium aluminium spinel synthesis at the composition of waste aluminium slag and 25 mass % MgO in the form of magnesia alba is studied.*

Experimental data on the degree of time and temperature conversion of the heat treatment satisfies the Avrami-Erofeev equation which achieves best linearity at n = 4 (n-grade in the Avrami-Erofeev equation). The calculated average value of the apparent activation energy is 54 kJ / mol.

Keywords: *Magnesium aluminium spinel, waste aluminium slag, kinetic, Avrami-Erofeev equation*

REFERENCES

Acheson, R. J. &. Galwey, A. K. (1968). The termal decomposition of salts of metallitic acid. Journal of the Chemical Society (A), 4, 942.

Barrett, P. (1975). Reaction Kinetics in Heterogeneous Chemical System, Elsevier, Amsterdam.

Buttress, G. D. & Hughes, M. A. (1968). Journal of the Chemical Society (A), 6, 1272.

Dollimore, D. & Tinsley, D. (1968). Journal of the Chemical Society (A), 19, 3043.

Garner, W. E. (1955). Chemistry of the Solid State. Butterworth, London.

Hannay, N. D. (1976). Treatise on Solid State Chemistry, (4), Plenum Press, New York.

Hedvall, J. A. (1966). Solid State Chemistry, Elsevier, Amsterdam.

Johnson, D. W. & Gallagher, P. K. (1971). Journal of the Chemical Society, 54, 461.

Keattch, C. J. & Dollimore, D. (1975). An Introduction to Thermogravimetry", 2nd ed. Hayden, London.

Thomas, J. M. & Renshaw, G. D. (1969). The role of dislocations in the dehydration of nickel sulphate hexahydrate. Part III. Kinetic studies. Journal of the Chemical Society (A), 18, 2756.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-CT(R)-12

INHIBITOR ACTIVITY OF MALEIMIDE AND ITS DERIVATIVES IN MILD STEEL CORROSION IN 1M H_2SO_4

Assoc. Prof. Temenuzhka Haralanova, PhD
Department of Chemistry and Chemical Technologies,
University of Ruse, Razgrad subsidiary, 7200 Razgrad, Bulgaria
E-mail: tharalanova@uni-ruse.bg

Assist. Prof. Angel Dishliev, PhD
Department of Mathematics,
University of Chemical Technology and Metallurgy, 1756 Sofia, Bulgaria
E-mail: adishliev@gmail.com

Assist. Prof. Christian Girginov, PhD
Department of Physical Chemistry,
University of Chemical Technology and Metallurgy, 1756 Sofia, Bulgaria
E-mail: girginov@uctm.edu

Abstract: *This investigation presents results for the corrosion of mild steel in a 1M H_2SO_4 solution with the addition of maleimide and four of its derivatives. The inhibitory effect of these organic compounds is estimated using a gravimetric method. The calculated values for the corrosion rate, the inhibitor efficiency and inhibitor activity coefficient at the maximum concentration of the organic additive are compared. These studies make it possible to assess the inhibitory properties of these compounds depending on their different functional groups. The obtained results do not represent the studied compounds as good corrosion inhibitors of mild steel in this acidic medium. In view of their practical application, it is necessary to look for opportunities to increase their concentration (over 10^{-3} mol dm^{-3}).*

Keywords: *mild steel, inhibitors, derivatives of the 1H-pyrrole-2,5-dione, corrosion rate*

REFERENCES

Al-Amiery, A., Kadhum, H., Kadihum, A., Mohamad, B., C. K. How,C. & Junaedi, S. (2014), Materials 7, 787.

Chiang, K. & Mintz, T. (2008). Techniques for Corrosion Monitoring, A volume in Woodhead Publishing Series in Metals and Surface Engineering, Chapter 9 - Gravimetric techniques, 247 – 264.

Eduok,U. & Khaled, M. (2015). Res. Chem. Intermed. 41, 6309.

Granese, S., Rosales,B., Oviedo, C. & Zerbino, O. (1992). Corros Sci. 33, 1439.

Haralanova, T. & Girginov, Ch. (2015). Chemistry: Bulgarian J. Sci. and Edu. 24, 397.

Lagrenee, M., Mernari, B., Bouanis, M., & Bentiss, F. (2002). Corros. Sci. 44, 573.

Mingpeng, Z., Kaiming, W., Yuemin, D. & Bensheng, Z. (1994). J. Chinese Society of Corrosion and Protection 14, 283-290.

Raicheva, S., Aleksiev B. & Sokolov, B.(1993). Corros. Sci. 34, 343.

Schmitt, G., Br. Corros, Br. (1984). J. 19, 165.

Stupnisek-Lisac, E., Berkovic,K. & Vorakapic-Furac, J. (1988). Corros. Sci. 12, 1189.

Subramanium,G., Balasuramanium, K., & Shridhar, P.(1990). Corros. Sci. 30, 1019.

Sykes, J.M., (1990). Br. Corros. J. 25, 175.

Yan, L., Zhao, P., Liang, Q & Hou,B. (2005). Appl. Surf. Sci. 252, 1245.

SAT–LB-P-1-CT(R)-13

FROM FORMAMIDE TO GLYCINE AND UREA: AN AB INITIO STUDY

Prof. Venelin Enchev, DSc
Assist. Prof. Sofia Slavova
Institute of Organic Chemistry with Centre of Phytochemistry,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
E-mail: venelin@orgchm.bas.bg (Venelin Enchev), sofia@orgchm.bas.bg (Sofia Slavova)

Abstract: *An investigation of prebiotic formation of nucleobases and amino acids from various organic compounds is of keen interest. The condensation of formamide has been shown to be a robust chemical pathway affording molecules necessary for the origin of life. It has been experimentally shown that condensation reactions of formamide, catalyzed by minerals and meteorites, leads to purine, nucleobases, amino acids, sugars and other biomolecules. Investigation of pathways of such reactions could indirectly represent potential pre-life chemical reactions. Quantum chemical computations represent a suitable tool to reveal details about intermediates and transition states along the reaction pathways. Information about transition states could not be extracted directly from experiments. Prebiotic experiments always involve complex mixtures, making the interpretation of outcomes difficult. Thus, quantum chemical studies allow evaluating routes among various possible reaction pathways. The current study presents the formamide-based reaction pathways to the amino acid glycine and to urea. The mechanisms for the formation of glycine and urea were studied by quantum chemical computations at MP2 and SCS-MP2 levels of theory using cc-pVDZ basis set.*

Acknowledgements: *Funding of this work by the National Science Fund, under Grant DN09/7/2016 is gratefully acknowledged.*

Keywords: *Formamide, Prebiotic compounds, Glycine, Urea, Ab initio*

 Copyrights© http://conf.uni-ruse.bg

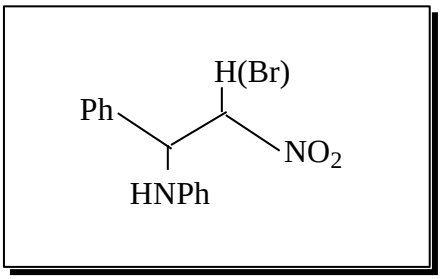
SAT–LB-P-1-CT(R)-14

REACTION OF ANILYNE WITH 2-NITROSTYRENE AND 2-BROMO2-NITROSTYRENE

Assos. Prof. Sonya Ivanova, PhD
Department of Organic Chemistry,
University Prof. Assen Zlatarov, Bourgas, Bulgaria
Tel.: + 359886322335
E-mail: viperorg@avb.bg

Abstract: *Heterocojugated alkenes containing electro-withdrawing groups are higly reactive compounds. The nucleophilic addition of aniline with 2-nitro- and 2-bromo-2-nitrostyrene and their derivatives have been studied.*

The general formula of the compounds obtained was follows



Nitroamines are synthesized as results of the interaction of equimolar amounts of the corresponding reagents in ethanol at room temperature for 12 h. The yields obtained varied within the range 95-98%.

The composition and structure of the componds were confirmed by elemental microanalysis and different spectral methods.

Keywords: *nitroamines, heteroconjugated alkenes, nucleophilic addition*

REFERENCES

Perekalin, V.V. (1994). Nitroalkenes.Conjugated Nitrocompound. London: John Wiley& Sons.

Ivanova, S. (2013) Reaction of sulfinic acids and heteroconjugated alkenes, Phosphorus, Sulfur and Silicon, 188, 1670-1674.

SAT–LB-P-1-CT(R)-15

PREPARATION AND CHARACTERIZATION OF CHITOSAN-ZEOLITE NANOCOMPOSITE FILMS FOR WOUND HEALING APPLICATION

Assos. Prof. Dilyana Zvezdova, PhD
Department of Preclinical and Clinical Subjects,
Prof. Assen Zlatarov University
Prof. Jakimov str.1, 8010 Burgas, Bulgaria
E-mail: zvezdova@abv.bg

Ass. Prof. Ivaylo Tankov, PhD
Department of Organic Chemical Technologies and Chemical Engineering,
Prof. Assen Zlatarov University
Prof. Jakimov str.1, 8010 Burgas, Bulgaria
E-mail: igtankov@yahoo.com

Ass. Prof. Valentin Vasilev
Department of Preclinical and Clinical Subjects,
Prof. Assen Zlatarov University
Prof. Jakimov str.1, 8010 Burgas, Bulgaria

Ass. Prof. Snezhina Georgieva, PhD
Department of Health and Social care,
Prof. Assen Zlatarov University
Prof. Jakimov str.1, 8010 Burgas, Bulgaria
E-mail: snezhinageorgieva@abv.bg

Anife Veli, Radoslava Nikolova
Central Research Laboratory,
Prof. Assen Zlatarov University
Prof. Jakimov str.1, 8010 Burgas, Bulgaria
E-mail: anife_veli@abv.bg, radost_vv@yahoo.com

Abstract: *A series of novel chitosan-zeolite nanocomposite (CZN) films were prepared by using solvent casting method for wound healing application. The physicochemical properties namely thickness, folding endurance, water absorption capacity, and water vapour transmission rate (WVTR) of the films were studied. Fourier transform infrared spectroscopy (FTIR) was employed to ascertain the interaction between negatively charged zeolite and positively charged chitosan. The surface morphology of the prepared composite films was also studied by scanning electron microscopy (SEM). Due to strong hydrophilic nature of zeolite, it great lyenhances the water absorption capacities of the prepared nanocomposite films. In addition, the presence of zeolite in the said films also increases the mechanical strength. Moreover, the antibacterial activity of the films was investigated against gram positive and gram negative.The above analysis suggested that the CZN films could be used as potential candidates for wound healing application.*

Keywords: *Chitosan-zeolite nanocomposite, Fourier transform infrared spectroscopy, Water absorption capacity, Water vapour transmission rate*

REFERENCES

Dutta, P., J. Dutta, V. Tripathi, (2004). Chitin, and chitosan chemistry, properties and aplication. Jounal Scientific Industrial Research, 63, p. 20-30.

Archana D., J. Dutta, P.K. Dutta (2013). Synthesis of Ethylenediamine Modified Chitosan and Evaluation for Removal of Divalent Metal Ions, Carbohydrate Polymers, 95, P. 530-539.

ArchanaD., B.K. Singh, J. Dutta, P.K. Dutta, (2015). Chitosan-PVP-nano silver oxide wound

 Copyrights© http://conf.uni-ruse.bg

dressing: In vitro and in vivo evaluation, International Journal Biological Macromolecules, 73, p. 49-57.

Singh J., P.K. Dutta, (2010). Preparation, Antibacterial and Physicochemical Behavior of Chitosan/Ofloxacin Complexes, International Journal Polymer Materials and Polimeric Biomaterials, 59, p.793-807.

SAT–LB-P-1-CT(R)-16

DIRECT MICROENCAPSULATION OF ROSE OIL, USING GELATIN AS SHELL MATERIAL

Assist. Prof. Stanislav Bayryamov, PhD
Department of Repairing, Reliability, Mechanisms, Machines, Logistic and Chemical Technologies, "Angel Kanchev" Univesity of Ruse
E-mail: sbayryamov@uni-ruse.bg

Abstract: *In order to maintain the action of the substance for an even longer time, the microencapsulation process is used. This method is used also in textile industry. The paper presents a protocol for direct microencapsulation of rose oil, using gelatin as shell material. The protocol used method of Sukumar Nachiappan and C.B. Lakshmikantha with some modifications, made by us. Due to its environmental cleanliness and the team's striving to focus on green chemistry technology, the strategy that was used in this article is related to physico-chemical microencapsulation methods. The material that builds the microcapsules is entirely from natural sources, which would allow their biodegradability over time. Unlike chemical polymers used in physical and chemical methods and characterized by harmful effects on the environment and the health of organisms, the natural substances forming the capsule shell are environmentally acceptable. A model reaction, using sunflower oil as core material and gelatin as shell material, was previously demonstrated. In this way capsules made of gelatin and filled with rose oil as a core material are used in the textile industry.*

Keywords: *Biopolymers, Textiles, Fragrances, Microencapsulation, Gelatin, Immobilization, Natural Compounds, Rose Oil, Sunflower Oil..*

REFERENCES

Hitabatuma Aloys, Sameh A. Korma, Tuyishime Marie Alice, Nyinawumuntu Chantal, Abdelmoneim H. Ali, Sherif M. Abed, Habinshuti Ildephonse. (2016). Microencapsulation by Complex Coacervation: Methods, Techniques, Benefits, and Applications - A Review. American Journal of Food Science and Nutrition Research,; 3(6), 188-192.

Srinidhi M., Manju gowda M. R., Jayanthi C. and Srikanth A. coacervation method for preparation of curcumin micro particles using natural polymer casein. World journal of pharmacy and pharmaceutical sciences. Volume 4,, Issue 06,, 293-304

Luteri, G. F. Sandoz Ltd. Switzerland. Microencapsulated agricultural chemicals. US Patent 5,883,046. 16 March 1999. 6pp.

Jing, H. U., Zuobing, X., Rujun, Z., Shuangshuang, M. A., Mingxi, W. and Zhen, L. (2011). Properties of Aroma Sustained-release Cotton Fabric with Rose Fragrance Nanocapsule. Product engineering and chemical technology. Chinese Journal of Chemical Engineering, 19(3), 523-528.

Rossi, W., Bonet-Aracil, M., Bou-Belda, E., Gisbert-Payá, J., Wilson, K. and Roldo, L. (2017). Characterization of orange oil microcapsules for application in textiles 17th World Textile Conference AUTEX 2017- Textiles - Shaping the Future IOP Conf. Series: Materials Science and Engineering, 254, 022007.

SAT–LB-P-1-CT(R)-17

SYNTHESIS OF GLYCEROL CARBONATE, TRIMETHYLOL PROPANE CARBONATE AND TRIS CARBONATE AS PRECURSORS FOR THE PREPARATION OF BIODEGRADABLE ENGINE OIL ADDITIVES

Assist. Prof. Stanislav Bayryamov, PhD
Department of Repairing, Reliability, Mechanisms, Machines, Logistic and Chemical Technologies, "Angel Kanchev" Univesity of Ruse
E-mail: sbayryamov@uni-ruse.bg

Abstract: *Over the past 10-15 years, the interest in the production of biodegradable, eco-friendly compounds has grown enormously. This is due to the growing need for better products on the one hand, and on the other hand, the ever-increasing need to protect the environment, animal and human health. Many of the metal parts, components, and finished machines obtained from industrial production contain metal surfaces, which must be protected against corrosion, especially when used. To increase the working capacity of the equipment and to extend its life, one of the ways is the use of oils with good performance. However, many oils are characterized by disadvantages such as temperature instability, insufficient tribological properties, unacceptable viscosity, fatigue and wear resistance, oxidative instability and corrosivity. For this reason, it is necessary to apply additives that improve their properties. Unfortunately, many of the additives, on the one hand, slightly improve the properties of the oils, on the other hand they deteriorate, and the third appear to be ecologically unacceptable. For this reason, demand for new, biodegradable, environmentally friendly additives is an urgent need. In this aspect compounds based on fatty carboxylic acid esters and polyvalent alcohols/aminoalcohols find application both as a basis for the production of renewable biodegradable raw materials, lubricants and for the production of additives. In this regard, combining the valuable properties of esters and amines, our efforts are directed to the production of complex esters of polyvalent alcohols and aminoalcohols, striving on the one hand to act as antioxidants, antiperspirants and alkaline reserves, on the other hand they are well soluble in the respective oils, and from a third party - to be biodegradable and environmentally compromising. In this article we describe the synthesis of glycerol carbonate, trimethololpropane carbonate and TRIS carbonate as precursors for the synthesis of complex polyvalent alcohol and aminoalcohol esters.*

Keywords: *Tribology, Biodegradable Additives, Glycerol Carbonate, Trimethylolpropane Carbonate, TRIS Carbonate, Precursor, Aminoalcohols*

REFERENCES

U. S. Pat. No. 2,836,564. Corrosion inhibitors and compositions, containing the same.

U. S. Pat. No. 3,652,410. Multifunctional lubricant additive compositions and lubricating oils containing.

U. S. Pat. No. 3,749,247. Addition of oxidation inhibitor to lubricating oil.

Boshui, C., Nan, Z., Kai, L., Jianhua, F. (2012). Enhanced Biodegradability, Lubricity and Corrosiveness of Lubricating Oil by Oleic Acid Diethanolamide Phosphate. *Tribology in Industry*, 34 (3), 152-157.

U. S. Pat. No. 4,683,069. Glycerol esters as fuel economy additives.

U. S. Pat. No. 3,112,271. Glycerol monooleate as anti-wear additive.

U. S. Pat. No. 5,658,863. Biodegradable branched synthetic ester base stocks and lubricants formed therefrom.

U. S. Pat. No. 4,957,651. Mixtures of partial fatty acid esters of polyhidric alcohols and sulfurized compositions, and use as lubricant additives.

U. S. Pat. No. 5,993,498. Polyol ester distillate fuels additive.

U. S. Pat. No. 5,840,672. Antioxydant system for lubrication base oils.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)

SAT–LB-P-1-BFT(R)-01

INFLUENCE OF SPIRULINA AND KELP ALGAE ON THE DEGREE OF INCREASE IN DOUGH VOLUME

Assoc. Prof. Denka Zlateva, PhD
Department of Commodity Science
Univesity of Economics - Varna
Phone: 0882009696
E-mail: zlateva@ue-varna.bg

Mimi Petrova, PhD candidate
Department of Commodity Science
Univesity of Economics - Varna
Phone: 0882009696
E-mail: m.petrova@ue-varna.bg

Abstract: *Bread is a product of high consumption in Bulgaria. Various additives are used to improve bread quality, and in recent years addition of seaweed is a common practice. Most authors pay attention to the nutritional value of algae-enriched bread. There are not many studies revealing algae influence on the properties of semi-finished products* (*and in particular, the yeast dough*).

The purpose of the present study is to investigate the influence of 4% Spirulina platensis and Kelp algae added to bread recipe on the degree of increase in yeast dough volume during the fermentation.

It was found that both the duration of the fermentation and sample composition influence the dough volume. After 3 hours of fermentation, an increase in the volume was observed in the control sample - 3.0 times, in the Kelp-enriched dough - 3.4 times. Tthe most significant being the increase in the Spirulina plantesis-enriched sample - 3.6 times. At 4 hours duration of the fermentation, in all the samples tested volumes decreased, the most pronounced in Spirulina plantesis enriched sample - 0.7 times, and the least significant in the sample with Kelp - 0.2 times. However, the volume of the enriched samples remains higher than that of the control sample.

Keywords: *Kelp, Spirulina platensis, algae, bread, dough volume*

REFERENCES

Burcu A., Avşaroğlu E., Işık O., Özyurt G., Kafkas E., Etyemez M., Uslu L. (2016). Nutritional and Physicochemical Characteristics of Bread Enriched with Microalgae Spirulina Platensis. Journal of Engineering Research and Application, 6(124): 2248–962230. www.ijera.com

Cornish, M. & Garbary, D. (2010) Antioxidants from macroalgae: potential applications to human health and nutrition. Algae 25:155–171

Fleurence, J. & Levine, I. (2016) Seaweed in health and disease prevention. Elsevier, Amsterdam, pp 476

García-Casal, M., Ramírez, J., Leets, I., Pereira, A. & Quiroga, M. (2009). Antioxidant capacity, polyphenol content and iron bioavailability from algae (Ulva sp.,Sargassum sp. and Porphyra sp.) in human subjects. British Journal of Nutrition. . Vol. 101, №1. p: 79-85.

Hafting, J., Craigie, J., Stengel, D., Loureiro, R., Buschmann, H., Yarish, C., Edwards, M. & Critchley, A. (2015) Prospects and challenges for industrial production of seaweed bioactives. J Phycol 51:821–837

Harnedy, P. & FitzGerald, R. (2011) Bioactive proteins, peptides and amino acids from macroalgae. J Phycol 47:218–232

He, H. & Hoseney, R. (1992). Effect of the quantity of wheat flour proteins on bread loaf volume. Cereal Chemistry. 69, pp. 17 – 19.

Holdt, S.& Kraan, S. (2011) Bioactive compounds in seaweed: functional food applications

and legislation. J Appl Phycol 23:543–597

Karadjov, G., (2007) Tehnologia na hlqba, hlebnite I sladkarski izdeliq. Matkom. Sofia

Menezes, B.S., Coelho, M.S., Meza, S.L.R., Salas-Mellado, M. and Souza, M.R.A.Z. (2015) Macroalgal biomass as an additional ingredient of bread. International Food Research Journal 22(2): 812-817

Podkorytova, A. (2004). Algae are a unique raw material for food enrichment. Food Industry. 2004. No.5. p: 27-28.

Sukhoveeva, M. & Podkorytova, A. (2006). Harvested algae and sea grass of the Far East: biology, spreading, inventory, processing technology. Vladivostok: TINRO-centre. p: 243.

Tiwari B, Troy D (eds) (2015) Seaweed sustainability: food and non-food applications. Academic, London

Vangelov, A.,(1993) Tehnologia na hlqba I testenite izdeliq. Zemzidat. Plovdiv

Velasco-González, O., Echavarría-Almeida, S., Sifuentes Díaz de León, A. & Casas-Valdez, M. (2013). USO del alga marina sargassum spp. Adicionada a la harina de trigo para preparar galletas alimenticias para consumo humano. Bioagro. Vol.25, №3. p: 189-194.

SAT–LB-P-1-BFT(R)-02

ENVIRONMENTAL IMPACT ASSESSMENTS OF CO_2 EMISSIONS OF POLLUTANTS PRODUCED USING DIFFERENT TRANSPORTATION FLEETS FOR "GREEN" DAIRY SUPPLY CHAIN DESING

Assoc. Prof. Dr. Elisaveta Georgieva Kirilova
Institute of Chemical Engineering at Bulgarian Academy of Sciences,
Acad. G. Bontchev Street, Bl.103, 1113 Sofia, Bulgaria
Tel.: (+359 2) 979 34 81
E-mail: eshopova@gmail.com

Prof. Dr. Natasha Grigorova Vaklieva-Bancheva
Institute of Chemical Engineering at Bulgarian Academy of Sciences,
Acad. G. Bontchev Street, Bl.103, 1113 Sofia, Bulgaria
Tel.: (+359 2) 979 34 81
E-mail: vaklieva@bas.bg

Assist. Prof. Dr. Rayka Kirilova Vladova
Institute of Chemical Engineering at Bulgarian Academy of Sciences,
Acad. G. Bontchev Street, Bl.103, 1113 Sofia, Bulgaria
Tel.: (+359 2) 979 34 81
E-mail: raika_vladova@abv.bg

Abstract: *This study represents a continuation of the optimization approach for designing "green" products portfolio of three-echelon "green" supply chain (GSC) for optimal short-term design of the activities in the production complex from the dairy industry. The approach takes into consideration three main subjects - products manufacturing, SC management and environmental impact. The latter involves environmental impact assessments of wastes produced along the chain and released in air and water. They are evaluated in terms of costs such as the best trade-off between the environmental and economic performance of the designed green products portfolio to be achieved. The approach is extended by including additional environmental impact assessments for the CO_2 emissions produced during transportation of raw material and products when fleets with different payload capacity and fuel engines are used. The latter aims to show how this factor influences designing the optimal environmental dairy products portfolio as well as can be used in the decision-making process.*

 Copyrights© http://conf.uni-ruse.bg

Keywords: *GSC management, Products' portfolio design, Environmental impact assessments, CO_2 emissions, Transportation fleets, Optimization*

REFERENCES

Chen, Ch., Zhang, J., Delaurentis, T., (2014). Quality control in food supply chain management: Ananalytical model and case study of the adulterated milk incident in China, International Journal of Production Economics, 152:188–199.

Djekic, I., Miocinovic, J., Tomasevic, I., Smigic, N., Tomic, N., (2014). Environmental life-cycle assessment of various dairy products. Journal of Cleaner Production, 68, 64-72.

European Commission, Agriculture and Rural Development, (2016). Milk and milk products, ec.europa.eu/agriculture/milk/index_en.htm (accessed 16.09.16).

Glover, J.L., Champion, D., Daniels, K.J., Dainty, A.J.D., (2014). An institutional theory perspective on sustainable practices across the dairy supply chain, International Journal of Production Economics, 152, 102-111.

Jouzdani, J., Sadjadi, S.J., Fathian, M., (2013). Dynamic dairy facility location and supply chain planning under traffic congestion and demand uncertainty: A case study of Tehran. Applied Mathematical Modelling, 37(18–19), 8467-8483.

Kirilova, E.G. and N.G. Vaklieva-Bancheva, (2017). Environmentally friendly management of dairy supply chain for designing a green products' portfolio, Journal of Cleaner Production, 167, 493-504.

Palmieri, N., Forleo, M.B. Salimei, E., (2017). Environmental impacts of a dairy *cheese chain* including whey feeding: An Italian case study, Journal of Cleaner Production, 140(2), 881-889.

Sharma, V.K., Chandana, P., Bhardwaj, A., (2015). Critical factors analysis and its ranking for implementation of GSCM in Indian dairy industry. Journal of Manufacturing Technology Management, 26(6), 911-922.

Validi, S., Bhattacharya, A., Byrne, P.J., (2014). A case analysis of a sustainable food supply chain distribution system—A multi-objective approach. Int. J. Production Economics, 152, 71-87.

https://autoline.info;http://1automarket.ru/en/

https://www.mercedes-benz.com/en/mercedes-benz/vehicles/trucks/fuel-comparisontests-in-europe/

http://www.cngas.co.uk/cngvehicles.php).

SAT–LB-P-1-BFT(R)-03

DETERMINATION OF RHEOLOGICAL PROPERTIES WITH FARINOGRAF AND EXTENSIGRAF OF BIO-FORTIFIED FLOUR

Assistant Prof. Marija Menkinoska, PhD
Faculty of Technology and Technical sciences-Veles
University "St. Climent Ohridski", 7000 Bitola, Republic of Macedonia
E-mail: marija_menkinoska@yahoo.co.uk

Assistant Prof. Tatjana Blazhevska PhD
Faculty of Technology and Technical sciences-Veles
University "St. Climent Ohridski", 7000 Bitola, Republic of Macedonia
E-mail: msptatjana@yahoo.com

Assistant Prof. Viktorija Stamatovska PhD
Faculty of Technology and Technical sciences-Veles
University "St. Climent Ohridski", 7000 Bitola, Republic of Macedonia
E-mail: vikistam2@gmail.com

Professor Vinko Stanoev PhD
Agricultural Institute
University "St. Cyril and Methodius: Skopje, Republic of Macedonia
E-mail: v.stanoev@zeminst.edu.mk

Abstract: *Rheological properties of dough are very important indices for product development in terms of product quality and process efficiency. There are several ways to evaluate the rheological behaviors of the dough, one of them is using farinographc and extensographic.The aim of this research was to examine the impact of agronomic bio-fortification on the rheological properties of flour obtained from wheat variety Radika. In this research are included 7 samples obtained by adding high quality chelate fertilizers at different stages of wheat growth: Fe soil (1), Fe soil + foliar (2), Fe foliar (3), Control (4), Zn soil (5) , Zn soil + foliar (6) and Zn foliar (7). From farinograph data for water absorption it is concluded that all variants have approximate values with minimal differences compared with variant 4. According to the data obtained for the level of softness, it is concluded that the dough for all variants are with medium quality. According to the qualitative number, all variants fall into the quality level B2, with exception of variant 5 which belongs to quality level C1. The results obtained from the extensigraf have shown that variant 1,2 and 7 has higher value of extensibility of the dough compared to variant 4, while variant 5,6 and 3 have lower values.The greatest resistance is measured in variant 2, and the lowest value for variant 5. Higher values were found in variants 1, 6 and 7, but variant 3 has a lower energy value compared to variant 4. Highest value the ratio (eesistance / exstensibility) was measured in variant 1 and 3, and the lowest in variant 5. Higher values were found in variants 6 and 7 compared to variant 4. From the farinographc analysis it can be concluded that the application of iron and zinc chelating fertilizers did not have a significant effect on the technological quality of the flour. From extensographic analysis is ascertained influence from application of iron soil, iron soil + foliar and zinc foliar wherein for variants 1,2 and 7 are obtained flour with higher extensibility, resistance and energy.*

Keywords: *bio-fortification, rheological, farinograph and extensigraf*

REFERENCES

Mondal A, Datta AK. 2008. Bread baking - A review. J Food Eng 86:465–74.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)-04

PREPARATION OF HYDROPHOBINS FROM THE FRUIT BODY OF PLEUROTUS OSTREATUS BY EXTRACTION WITH FORMIC ACID

PhD student Nikita Khrapatov, Master
Department of Technology of Microbiological Synthesis,
St. Petersburg State Institute of Technology (Technical University), Russia
E-mail: khrapatovn@mail.ru

Student. Artyom Khludin, Bachelor
Department of Technology of Microbiological Synthesis,
St. Petersburg State Institute of Technology (Technical University), Russia
E-mail: xludin.ar@yandex.ru

Lecturer Boris Kolesnikov, PhD
Department of Technology of Microbiological Synthesis,
St. Petersburg State Institute of Technology (Technical University), Russia
E-mail: kalelovo@mail.ru

Associate Professor Mark Shamtsyan, PhD
Department of Technology of Microbiological Synthesis,
St. Petersburg State Institute of Technology (Technical University), Russia
E-mail: mark.shamtsyuan@yandex.ru

Abstract: *Hydrophobins are a family of low molecular weight proteins that have high surface activity. These proteins are produced exclusively by filamentous fungi. The article presents the possibility of obtaining hydrophobin-like proteins, applicable in the food industry from the fruit bodies of pleurotus ostreatus. P. ostreatus produces class I hydrophobins. Class 1 hydrophobins are soluble in concentrated solutions of TFA or formic acid. Formic acid, unlike TFU, can be used in the food industry. Hydrophobins were obtained by extraction with formic acid from biomass P. ostreatus. To destroy the hydrophobin agglomerates, the obtained extract was treated with performic acid. The material balance was compiled at different stages of the preparation of hydrophobin-like proteins. As a result, the extract was obtained with high surface activity.*

Keywords: *Hydrophobin, Foam Stabilize, Pleurotus ostreatus, Surface active proteins*

REFERENCES

Belozerskaya, T. (2001). Hydrophobins of fungi: structure and function. Mycology and Phytopathology, 35 (1), 3-11.

Kwan A., [et al] (2006). Structural basis for rodlet assembly in fungal hydrophobins. Proc Natl Acad Sci USA, 103, 3621–3626.

Annunziata A. (2008). Pleurotus ostreatus hydrophobins: surface active proteins. Dottorato in scienze biotecnologiche Biotecnologie Industriali Università di Napoli Federico II –Niapoli, 10–76.

Kulkarni S., Nene S., Joshi K. (2017). Production of Hydrophobins from fungi. Process Biochemistry, 61, 1-11.

Wessels G., Vries O., Ásgeirsdóttir S., Schuren F. (1991). Hydrophobin Genes lnvolved in Formation of Aerial Hyphae and Fruit Bodies in Schizophyllum. The Plant Cell, 3, 793-799.

Kolesnikov B., Larionov I., Shamtsyan M. (2014). Obtaining surface - active proteins from the submerged culture of the fungus Trichoderma viride. Izvestia SPBGTI (TU), 25, 55-58.

SAT–LB-P-1-BFT(R)-05

SYNTESIS OF MECHATRONIC FUNCTION MODULES DRIVES OF FLOW TECHNOLOGICAL LINES IN FOOD PRODUCTION

Liudmyla Kryvoplias-Volodina, PhD
Department of Mechatronics and Packaging Technology
National University of Food Technologies, Kyiv, Ukraine
Tel.: +380508044075
E-mail: kryvopliasvolodina@camozzi.ua

Prof. Alexander Gavva, DcS
Department of Machines and Apparatus for Food and Pharmaceutical Industries,
National University of Food Technologies, Kyiv, Ukraine
Tel.: +380977700997
E-mail: gavvaoleksandr@gmail.com

Taras Hnativ, graduate student
Department of Machines and Apparatus for Food and Pharmaceutical Industries,
National University of Food Technologies, Kyiv, Ukraine
Tel.: +380993708467
E-mail: taras.gnativ@gmail.com

Abstract: *The tasks were considered, which are related to the working bodies for the artificial food products movement according to the specified movement law and their positioning in the intermediate positions of the kinematic cycle. The actuators dynamics characteristics and control system of power part of positional electro-pneumatic actuators were researched. The methods of mathematical and computer modeling, and methods of solving ordinary differential equations and partial differential equations and method of correlation analysis were used. In the obtained results of modeling the kinematic load and the pressure of the working position pneumatic actuator, clearly observed that the inertial component increases in 4 stages* (*braking*)*, during the narrowing the exhaust section of the working cylinder of the positional pneumatic actuator. The results of mathematical modeling for positional pneumatic actuators with the condition of changing the section of the exhaust hole allowed to track all the kinematic characteristics of the actuator. The obtained results allow to assign to the working body the law of motion, approximated to the optimal on the speed of action, not exceeding at the same time the maximum permissible dynamic influences for a moving artificial product.*

Keywords: *functional, module, packing, electro-pneumatic actuator, accuracy*.

REFERENCES

Krivts, I., Krejnin, G. (2006), “Pneumatic Actuating Systems for Automatic Equipment: Structure and Design” CRC Press Taylor & Francis Group, Boca Raton, USA, 368.

Janiszowski, K., Kuczyński M. (2007). Fast prototyping approach in developing low air consumption pneumatic systems, Mechatronics, Springer, 475-480.

Kinyckyi, Ya. (2008). Problems and tests on theory of mechanisms and machines.

Virvalo, T. (2016). Comparing different controllers of electropneumatic position servo, in: Proceedings of the Third JHPS International Symposium, 151-156.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)-06

QUALITY CHARACTERISTICS OF HONEY: A REVIEW

Tatjana Pavlova, MSc
Assistant Prof. Viktorija Stamatovska PhD
Assistant Prof. Tatjana Kalevska, PhD
Faculty of Technology and Technical Sciences - Veles
University "St. Kliment Ohridski"- Bitola, Republic of Macedonia
E-mail: tatjanapavlova15@yahoo.com; vikistam2@gmail.com; tkalevska@gmail.com

Assist. Prof. Ivan Dimov, PhD
Faculty of Technics and Technologies - Yambol
Trakia University - Stara Zagora, Bulgaria
E-mail: ivendi_81@abv.bg

Assistant Gjore Nakov, MSc
Department of Biotechnology and Food Technologies
University of Ruse "Angel Kanchev", Branch Razgrad, Bulgaria
Phone: +359894264250
E-mail: gnakov@uni-ruse.com

Abstract: *Honey is a sweet natural product, which is produced by bees generally from the nectar of flowers and sweet deposits from plants. It is a complex mixture that contains nutrients and bioactive compounds such as carbohydrates (primarily fructose and glucose), enzymes, proteins, amino acids, organic acids, minerals, vitamins, aromatic substances, polyphenols, pigments, beeswax, and pollen that contribute to its color, smell and flavor. The composition and quality of honey is variable and it depends mainly on the botanical source of nectar from which it is obtained, but also depend on the geographic location, seasonal and climatic conditions, processing type and storage. Due to its special composition, honey is a functional food, which is consumed for its effects on human health, with antibacterial, antioxidant, anti-inflammatory and antimicrobial properties, as well as wound and sunburn healing effects. Honey is used in pure form after little or minimal processing as liquid, crystals or other types. The uses of honey as food include flavourant and sweetener in honey cookies, dairy products and fruit juices, as well as industrial production of beverages by mixing with alcohol. In this review, the physical properties and nutritive chemical composition thoroughly reviewed to underscore the quality of honey.*

Keywords: *Honey, Quality, Nutritive chemical composition, Physical properties.*

ACKNOWLEDGMENTS

The study was supported by contract of University of Ruse "Angel Kanchev", № BG05M2OP001-2.009-0011-C01, " Support for the development of human resources for research and innovation at the University of Ruse "Angel Kanchev". The project is funded with support from the Operational Program " Science and Education for Smart Growth 2014 - 2020" financed by the European Social Fund of the European Union.

REFERENCES

Ahmed, S., Sulaiman, A.S., Baig, A. A., Ibrahim, M., Liaqat, S., Fatima, S., Jabeen, S., Shamim, N. & Othman, H. N. (2018). Honey as a Potential Natural Antioxidant Medicine: An Insight into Its Molecular Mechanisms of Action. Oxidative Medicine and Cellular Longevity, Vol. 2018, Article ID 8367846, 19 pages, https://doi.org/10.1155/2018/8367846.

Ajibola, A. (2015). Physico-Chemical and Physiological Values of Honey and Its Importance as a Functional Food. Int J Food Nutr Sci, 2(2), 180-188.

SAT–LB-P-1-BFT(R)-07

BASIC PHYSICO-CHEMICAL STUDIES OF ORANGE-COLORED SNOW (RAZGRAD, BULGARIA)

Assoc. Prof. Sevdalina Todorova, PhD
Department of Biotechnologies and Food Technologies,
"Angel Kanchev" Univesity of Ruse, Razgrad Branch, Bulgaria
Phone: +359882692828
E-mail: stodorova@uni-ruse.bg

B.Eng. Maria Stefanova, Master Student
B.Eng. Maya Petkova
B.Eng. Emel Djevdetova
Department of Chemical Technologies,
"Angel Kanchev" Univesity of Ruse, Razgrad Branch, Bulgaria
E-mail: m.stefanova73@abv.bg, m_ivanova81@abv.bg, djevdetova@mail.bg

Abstract: *Snow can be found in other colors besides white. In this paper orange-colored snow sample collected from Razgrad, Bulgaria was evaluated. The specific purposes of the present study are to characterize the physical and chemical composition of the melted snow-water sample. Snow was analyzed for acidity (pH), total solids, total suspended solids, total dissolved solids, basic anions: chloride (Cl^-), nitrites (NO_2^-), nitrates (NO_3^-), sulfides and hydrogen sulphide. These parameters indicated high concentrations of total solids and total suspended solids in the snow-water. The acidity (pH) was 5,1. According to the above analyses, the possible sources of the particles in the snowfall should be soil and ground dust and co al-burning.*

Keywords: *Orange-colored snow, Physical and chemical characterisations, Physical indicators, Chemical indicators.*

REFERENCES

Balgarska akademia na naukite. Nacionalen institute po meteorologia i hidrologia. Mesechen hidrometeorologichen byuletin mart 2018 g. Sofia. http://www.meteo.bg.

Galitskaya, I.V., & Rumyantseva, N.A. (2012). Snow-cover contamination in urban territories

(Lefortovo district, Moscow). Annals of Glaciology, 53(61), 23-26. doi: 10.3189/-2012AoG61A009

Helmenstine, A.M. (2017). How Colored Snow Works. Thoughtco. https://www.-thoughtco.com/colored-snow-chemistry-606776 (Updated December 22, 2017).

Hristova, E., Veleva, B., Korsachka, M., & Valcheva, L. (2016). Opredelyane himicheskia sastav na valejite v grad Sofia. 3rd National Congress on Physical Sciences, 29th September – 2nd October 2016, Sofia. Section: Physics of Earth, Atmosphere and Space.

Naredba № H-4 ot 14.09.2012 g. za harakterizirane na povarhnostnite vodi. Izdadena ot ministara na okolnata sreda i vodite, obn., DV, br. 22 ot 5.03.2013 g., v sila ot 5.03.2013 g., izm. i dop., br. 79 ot 23.09.2014 g., v sila ot 23.09.2014 g.

Todorova, S. (2015). Rakovodstvo za laboratorni uprajnenia po promischlena ekologia. Burgas: Izdatelstvo "Libra Skorp".

Vekilska, B. (1991). Obschta klimatologia. Sofia: Universitetsko izdatelstvo "Kliment Ohridski".

http://vreme.to/pages/news/11214.html?backto=

http://www.dnesplus.bg/News.aspx?n=823302

https://www.24chasa.bg/novini/article/6778666

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)-08

COMPARISON OF ALEXA 488, DR110 AND FITC CONJUGATED TO ANTIBODY FOR MICROSCOPIC ASSAYS

Zlatina Becheva, PhD
Department of Biotechnology,
"Assen Zlatarov" University of Burgas, Bulgaria
Tel.: +35956716528
E-mail: zlatinabe4eva@abv.bg

Yavor Ivanov, PhD
Department of Biotechnology,
"Assen Zlatarov" University of Burgas, Bulgaria
Tel.: +35956716528
E-mail: qvor_burgas@abv.bg

Prof. Tzonka Godjevargova, DcS
Department of Biotechnology,
"Assen Zlatarov" University of Burgas, Bulgaria
Tel.: +35956716528
E-mail: godjevargova@yahoo.com

Abstract: *The fluorescent dyes DR110 and Alexa 488 were obtained. Synthetic fluorescent dyes that are conjugated to antibodies are useful tools in microscopic imaging. Alexa 488, DR110 and fluorescein 5(6)-isothiocyanate (FITC) were compared in applications using various conjugates with anti-sheep IgG antibody. Antibody-fluorescent dye conjugates with variety degree of labelling were obtained. Their fluorescence characteristics were observed by fluorescence spectrophotometer and fluorescence microscope. Brightness, photobleaching and background of the fluorescent conjugates were examined. Alexa 488 labeled antibody has brighter fluorescence and negligible photobleaching and background in microscopic assays, then DR110 and last FITC dye.*

Keywords: *Alexa 488, DR110, FITC, anti-sheep IgG antibody, fluorescent conjugates, microscopy.*

REFERENCES

Becheva, Z., Gabrovska, K., & Godjevargova, T. (2017). Immunofluorescence microscopic assay of neutrophils and somatic cells in bovine milk. Food and Agricultural Immunology, 28(6), 1196-1210.

Bradford, M. (1976). A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. Analytical Biochemistry, 72, 248-254.

Haugland, R. (1995). Coupling of monoclonal antibodies with fluorophores. In Davis, W. (ed.) (1995). Methods in Molecular Biology. Monoclonal Antibody Protocols. Totowa, NJ, Humana Press, 205-221.

Mohmoudian, J., Hadavi, R., Jeddi-Tehrani, M., Mahmoudi, A., Bayat, A., Shaban, E., Vafakhah, M., Darzi, M., Tarahomi, M., & Ghods, R. (2011). Cell Journal, 13(3), 169-172.

Mujumdar, R., Ernst, L., Mujumdar, S., Lewis, C., & Waggoner, A. (1993). Bioconjugate Chemistry, 4, 105-111.

Panchuk-Voloshina, N., Haugland, R., Bishop-Stewart, J., Bhalgat, M., Millard, P., Mao, F., Leung, W., & Haugland, R. (1999). The Journal of Histochemistry & Cytochemistry, 47(9), 1179-1188.

SAT–LB-P-1-BFT(R)-09

USE OF ESSENTIAL OILS IN DAIRY PRODUCTS 4. ESSENTIAL OIL OF OREGANO (ORIGANUM VULGARE L.)

Assoc. Prof. Iliana Kostova, PhD
Prof. Stanka Damyanova, DSc
Assoc. Prof. Nastya Ivanova, PhD
Department of Biotechnology and Food Technologw, Razgrad Branch,
"Angel Kanchev" Univesity of Ruse
E-mail: ikostova@uni-ruse.bg, sdamianova@uni-ruse.bg, nivanova@ uni-ruse.bg

Prof. Albena Stoyanova, DSc
Department of Essential oils,
University of Food Technologies, Plovdiv, Bulgaria
Tel.: +359894337990
E-mail: aastst@abv.bg

Abstract: *Food is important to maintain and protect human health. A lot of traditional products* (*milk, fruits, vegetables, etc.*) *contain components with potential health benefits. New ones based on these food are being developed and they increase or join their useful components because of their benefits or desirable physiological effects. Today functional food based on milk takes up two-thirds of the total volume of the functional foods on the market as dairy foods are foods with naturally balanced composition of the essential nutrients such as protein, fats, carbohydrates, minerals, and enzymes.*

There are dairy products that were developed with an enriched composition through the addition of limseeds, sesameseeds, oat flakes, honey, and essential oil of oregano (*Origanum vulgare L.*).

The effect of the additives on the process of the acidifying, syneresis, and the development of lactic acid bacteria was researched. It was found that they are good for the lactic acid process. The prepared products have very good organoleptic properties and can be successfully used for the purposes of functional food.

Keywords: *dairy products, titratable acidity, syneresis, lactic acid bacteria*

REFERENCES

Barros, C., da Conceicao, M., Gomes, N., da Costa, A., da Souza, E. (2012). Combination of Origanum vulgare L. essential oil and lactic acid to inhibit Staphylococcus aureus in meat broth and meat model. Brazilian Journal of Microbiology. 1120 – 1127.

Betored, E., Betored, N., Vidal, D., & Fito P. (2011). Functional foods development: Trends and technologies. Trends in Food Science & Technology 22, 498 – 508.

Cardarelli, H., Saad, S., Gibson, G., & Vulevich J. (2007). Functional petit – suisse cheese: measure of the prebiotic effect. Anaerobe. 13, 200 – 207.

Damyanova, St., Todorova, S., Ivanova, N., Ganeva, E., & Stefanova, R. (2011). Development and testing of milk products with a functional purpose. Kharkov National University Kiev NUHT, 37, 47-51.

Dimitrov, T., Mikhailova, G., Iliev, T., & Naydenova, N. (2008). Milk and milk products with research methods, Stara Zagora.

Georgiev, E., & Stoyanova, A. (2006). Guide of the specialist of the balmy industry. BNAEOPC, Plovdiv.

Gutierrez, J., Barry-Ryan, C., Bourke, P. (2009). Antimicrobial activity of plant essential oils using food model media: efficacy, synergistic potential and interaction with food components. Food Microbiology. 26, 142-150.

Kajiwara, S., Gandhi, H., & Ustunol, Z. (2002). Effect of honey on the growth of and acid production by human intestinal Bifidobacterium spp.: an in vitro comparison with commercial oligosaccharides and inulin. J. Food Protect 65, 214–218.

 Copyrights© http://conf.uni-ruse.bg

Kostova, I., Dimitrov, D., Ivanova, M., Vlaseva, R., Damyanova, S., Ivanova, N., Stoyanova, A. (2014). Studying the Possibilities of Using Of Essential Oils in Dairy Products. Oregano (Origanum vulgare L.). Proceedings of the International Conference Modern Technoologies, in the Food Industry, Octob. 16-18, 228-235.

Panesar P. S. (2011). Fermented Dairy Products: Starter Cultures and Potential Nutritional Benefits. Food and Nutrition Sciences 2, 47 – 51.

Petrovski S., & Stoyanov S. (2005). Essential oils and their applications in medicine and industry. Publish Sai Set – Eco, Sofia.

Roberfroid M. B. (2002). Global view on functional foods: European perspectives. British Journal of Nutrition, 88, Suppl. 2, S133 – S138.

Slavchev, D., Enikova R., Makaveeva M. (2003). Guide for physical, chemical and microbiological control of dairy products, Sofia.

Thabet H., Nogaim, Q., Qasha A., & Abdoalaziz, O. (2014). Evaluation of the effects of some plant derived essential oils on shelf life extension of Labneh. Merit Research Journal of Food Science and Technology, 21, 008 – 014.

SAT–LB-P-1-BFT(R)-10

THE INFLUENCE OF INDUSTRIAL AND FACIAL WATER ON THE FIFTH CHANNEL SITUATION IN THE CITY OF BITOLA

Assistant Prof. Tatjana Blazhevska PhD
Assistant Prof. Marija Menkinoska PhD
Faculty of Technology and Technical sciences-Veles
University "St. Climent Ohridski", 7000 Bitola, Republic of Macedonia
E-mail: msptatjana@yahoo.com; marija_menkinoska@yahoo.co.uk

Assistant Gjore Nakov, MSc
Assoc. Prof. Nastya Ivanova, PhD
Department of Biotechnology and Food Technologies
University of Ruse "Angel Kanchev", Branch Razgrad, Bulgaria
Phone: +359894264250
E-mail: gnakov@uni-ruse.com; nivanova@uni-ruse.bg

Professor Vinko Stanoev PhD
Agricultural Institute
University "St. Cyril and Methodius: Skopje, Republic of Macedonia
E-mail: v.stanoev@zeminst.edu.mk

Abstract: *The concept of sustainability in urban waste water management is more commonly used and has a primary focus on ways to the environmental protection, public health and water resources* (*Ibrahimali A., 2014*).

The fifth channel is located in the City of Bitola and is filled with mountain water - Siva Voda. Half of the fecal wastewater from the City of Bitola and the village of Kravari and the industrial wastewater from the factory for yeast and alcohol, the beer factory, the factory for production of paper and cardboard packaging, the „Kiro Dandaro" printing plant and the Sugar Factory flow in it.The measuring points are along the fifth channel: Measuring point 1 - fifth channel at the exit from Bitola, Measuring point 2 - fifth channel at the village of Kravari, Measuring point 3 - fifth channel before it enters the Crna River. For determining the condition of the water, the following physical chemical parameters were examined in the fifth channel: the water temperature determined by a digital thermometer, turbidity (*opacity*) *was determined by turbidimeters, suspended solids, dissolved oxygen, biological oxygen consumption* (*BOD*), *chemical oxygen consumption* (*COD*) *and together organic carbon* (*TOC*) *was determined with UV PASTEL - tool for directly reading of the values. All examinatios are conducted in March and September. By summarizing the results obtained, it can be concluded that the largest pollution is in the Measuring point 2, which is more pronounced in September. The value of BOD is 370mg / L, TOC is 72,0 mg / L in the same measuring place and the same month. This situation is due to the increased concentration with organic pollution in the Measuring point 2. Therefore, it is preferable to temporarily clean the channels and purify the wastewater in order to protect the environment.*

Keywords: *Fifth channel, waste water, environmental pollution*

REFERENCES

Ibrahimlari A.are P., 2014. Water supply and wastewater. Challenges and sustainability. International Conference Ohrid 51-61.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)-11

PAINTING WITH YEASTS ON CHROMOGENIC DIFFERENTIAL CULTURE MEDIA

Assoc. Prof. Sevdalina Todorova, PhD
Department of Biotechnologies and Food Technologies,
"Angel Kanchev" Univesity of Ruse, Razgrad Branch, Bulgaria
Phone: +359882692828
E-mail: stodorova@uni-ruse.bg

B.Eng. Neli Atanasova
B.Eng. Mirela Atanasova
Department of Biotechnologies and Food Technologies,
"Angel Kanchev" Univesity of Ruse, Razgrad Branch, Bulgaria
E-mail: kondor7680@abv.bg, miramar01@abv.bg

Abstract: *Arts-related science activities provide unique opportunities to engage students' strengths. Microbial art, or agar art, is artwork created by culturing microorganisms in certain patterns. Agar plates are used as a canvas, while pigmented bacteria and yeasts represent the paint. Chromogenic media are frequently used in direct and rapid identification of yeasts because different species produce unique colors on these media. This study was thus undertaken to investigate the ability (or inability) of some Candida, Rhodotorula, Saccharomyces, Saccharomycodes, Endomyces and Kluyveromyces species to grow on chromogenic yeast culture medium - HiCrome™ Candida Differential Agar. Living works of art on agar plates were created by "painting" with yeasts that express various colors in chromogenic medium. The intensity of growth and the characteristic pigmentation of each of the studied yeasts were determined.*

Keywords: *Microbial art, Agar art, Yeasts, Chromogenic differential media.*

REFERENCES

Fricker-Hidalgo, H., Orenga, S., Lebeau, B., Pelloux, H., Brenier-Pinchart, M. P., Ambroise-Thomas, P., & Grillot, R. (2001). Evaluation of Candida ID, a New Chromogenic Medium for Fungal Isolation and Preliminary Identification of Some Yeast Species. *J Clin Microbiol*, 39(4), 1647–1649.

Hajar, R. (2017). Painting with Bacteria. *Heart Views*, 18(3). 108.

Letscher-Bru, V., Meyer, M. H., Galoisy, A. C., Waller, J., & Candolfi, E. (2002). Prospective evaluation of the new chromogenic medium Candida ID, in comparison with Candiselect, for isolation of molds and isolation and presumptive identification of yeast species. *J Clin Microbiol*, 40(4), 1508-10.

Ozcan, K., Ilkit, M., Ates, A., Turac-Bicer, A., & Demirhindi, H. (2010). Performance of Chromogenic Candida Agar and CHROMagar Candida in recovery and presumptive identification of monofungal and polyfungal vaginal isolates. Medical Mycology, 48(1), 29–34.

Shettar, S. K., Patil, A. B., Nadagir, S. D., Shepur, T. A., Mythri, B. A., & Gadadavar, S. (2012). Evaluation of HiCrome differential agar for speciation of candida. Journal of Academy of Medical Sciences, 2(3), 101-104.

Todorova, S., Dimitrov, T., Ivanova, I., Muradov, H., Spiridonova, R., Nedelcheva, R., Nedelcheva, R., Stefanova, P., & Petrova, D. (2015). Innovations in teaching and learning microbiology – painting with pigment microorganisms. *University of Ruse "Angel Kanchev" Proceedings*, 54(10.2), 73-79.

Willinger, B., Hillowoth, C., Selitsch, B. & Manafi, M. (2001). Performance of Candida ID, a New Chromogenic Medium for Presumptive Identification of Candida Species, in Comparison to CHROMagar Candida. *J. Clin. Microbiol.*, 39(10), 3793-3795.

Wu, R., Brinkema, C., Peterson, M., Waltzer, A., & Chowning, J. (2018). STEAM Connections: Painting with Bacteria. *The American Biology Teacher*, 80(4), 305-307. DOI:

10.1525/abt.2018.80.4.305
http://brettanomycesproject.com/2009/03/wln-agar-medium/
https://catalog.hardydiagnostics.com/cp_prod/content/hugo/HardyCHROMCandida.html
https://ridacom.com/en/products/view/5016
http://www.eolabs.com/product/pp3010-colorex-candida/
http://www.himedialabs.ru/m217-m217d

SAT–LB-P-1-BFT(R)-12

DETERMINATION OF FATTY ACIDS PROFILE OF SUNFLOWER OIL SAMPLES BY NMR ^{1}H SPECTROSCOPY

Svitlana Kovaleva, PhD
Department of Food Chemistry,
National University of Food Technologies, Kyiv, Ukraine
Tel.: +38-099-913-92-87
E-mail: sval_kov@ukr.net

Larysa Mazur, PhD
Department of Food Chemistry
National University of Food Technologies, Kyiv, Ukraine
Tel.: +38-095-898-23-92
E-mail: mazurlarisa1970@gmail.com

Inna Hutsalo, postgraduate student
Department of Physics
University of Food Technologies, Kyiv, Ukraine
Tel. +38-066-997-64-74
E-mail: hutsaloiv@ukr.net

Abstract: *Sunflower oil with a high content of oleic acid (Omega-9) and a sufficiently low content of polyunsaturated linoleic acid (Omega-6) is characterized by a lower nutritional value but greater chemical stability at high temperatures and in the presence of oxidizing agents, therefore, it has several advantages for the food and chemical industries, and also as a raw material for the production of biofuels. Therefore, chemical and physical properties of sunflower oil as well as its area of application depend on its fatty acids profile. The determination of the TAG composition of oil is a very important task, because due to selection there are a large number of sunflower varieties. The spectra of oil samples extracted from seeds of various sunflower varieties were investigated by NMR ^{1}H spectroscopy to determine fatty acids composition. This method based on estimation and comparison the proton integral intensities of allylic and bis-allylic CH_2 groups with intensity of glycerol protons that allows determining the amounts of each of these unsaturated fatty acids. It was shown each oil sample obtained has its individual TAG profile determining its physicochemical properties and nutritional value. Method ^{1}H-NMR spectroscopy compared with alternative analytical methods is rapid and non-destructive, so it is perspective to be used for determination of fatty acid composition of sunflower oil.*

Keywords: *sunflower oil, fatty acid, oleic acid, linoleic acid, NMR spectroscopy, fatty acids profile.*

REFERENCES

Knothe, G. and Kenar, J.A., (2004). Determination of the fatty acid profile by ^{1}H NMR spectroscopy. Eur. J. Lipid Sci. Technol., 106, 88-96; doi:10.1002/ejlt.200300880

Jana Orsavova, Ladislava Misurcova, Jarmila Vavra Ambrozova, Robert Vicha and Jiri Mlcek, (2015). Fatty Acids Composition of Vegetable Oils and Its Contribution to Dietary Energy Intake and Dependence of Cardiovascular Mortality on Dietary Intake of Fatty Acids. International Journal of Molecular Sciences, 16, 12871-12890; doi:10.3390/ijms160612871

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)-13

STUDYING THE BORROWING STRUCTURE OF BAKERY PRODUCTS

Assoc. Vitalii Rachok
Department Machines and apparatus of food and pharmaceutical productions,
National University of Food Technology, Ukraine
Phone: +380665848545
E-mail: RachokV3478@gmail.com

Stud. Ivanna Telychkun
Department of Foodstuff Expertise,
National University of Food Technology, Ukraine
Phone: +380939091284
E-mail: yana.telychkun@gmail.com

Prof. Volodymyr Telychkun, PhD
Department Machines and apparatus of food and pharmaceutical productions,
National University of Food Technology, Ukraine
Tel.: +380674665890
E-mail: tvill@meta.ua

Abstract: *Bakery products after mixing by working elements of various configurations are estimated by physical and chemical indicators, one of the important consumer qualities of bread is its freshness and porosity.*

Among the most important organoleptic characteristics of porosity the uniformity of the arrangement of pores and their size were determined. After mixing, the yeast dough should increase in volume, acquire a capillary-porous structure, in which pores will form gaseous fermentation products. Studies have been carried out on the influence of costs of specific work during mixing on the formation of the number of pores in the cereal product.

Porosity characterizes the important qualitative property of bread. Low porosity is usually characterized by bread from poorly-battered yeast dough. By means of enhanced mechanical processing of the dough, the specific work required for the batch increases and the qualitative parameters of the porosity of the finished product increase accordingly. The porosity and structure of the porosity of finished products were investigated, preliminary kneading the yeast dough with the working elemets of different configurations.

Keywords: *Mixing, Yeast Dough, Porosity, Structure, Distribution.*

REFERENCES

Shehzad A, (2012) Energetical and rheological approaches of wheat flour dough mixing with a spiral mixer. Journal of Food Engineering – 110.

Jekle M. (2011) Dough microstructure: Novel analysis by quantification using confocal laser scanning microscopy. Food Research International.

Guy R. (2000) Extrusion cooking. Technologies and applications. London: Woodhead Publishing Limited.

Guy R. (1997) Rheological Properties of Rice Starch at High Moisture Contents during Twin-screw Extrusion Food Science and Technology. London: Head Publishing.

SAT–LB-P-1-BFT(R)-14

INFLUENCE OF ELECTROPHYSICAL WATER TREATMENT ON THE PROCESS OF BEVERAGES SATURATION

Oleksiy Nescuba, master's degree
Department of machines and apparatus of food and pharmaceutical productions,
National University of Food Technologies, Ukraine
Tel.: +380955542892
E-mail: neskubaoo@ukr.net

Assoc. Prof. Olena Chepeliuk, PhD
Department of machines and apparatus of food and pharmaceutical productions,
National University of Food Technologies, Ukraine
Phone: +380665133612
E-mail: lenasandul@yahoo.com

Abstract: *The content of carbon dioxide, which is actively used by producers of carbonated beverages as a preservative, acidity regulator and antioxidant, significantly affects the quality of finished products.*

The possibility of changing the ph value, which affects the balance between carbon dioxide, bicarbonate and carbonate during saturation, by electrophysical treatment of water was considered. Industry produces various variants of electrolysers, but they are not suitable for saturation of drinks. Therefore, the development of an appropriate design is an urgent task.

It is expedient to carry out the process of saturation simultaneously with the electrophysical treatment of pre-prepared (cooled and deaerated) water. The parameters that influence the efficiency of electrophysical treatment and the quality of finished products are the voltage, the voltage-ampere characteristic, the mutual placement of the electrodes, the duration of activation, the degree of mineralization of the solution. The influence of material of equipment, including electrodes, on the content of metals in the carbonated beverages is also taken into account. Electrodes in the process of operation should not experience electrochemical destruction. It is expedient to make an anode from a titanium, a cathode - from a corrosion resistant steel AISI 321.

Keywords: *Saturation, Beverage, Electrophysical treatment, ph value.*

REFERENCES

Tsarenko, Iu. (2014) Deistvie ultrazvuka i elektrokhimicheskoi aktivatsii na vodoprovodnuiu pitevuiu vodu. Uchenye Zapiski UO VGAVM, 50(1), 162–166.

Amcheslavskii, O. (2011). Optimizatsiia parametrov pri aktivatsii vody i vodnykh rastvorov. Prirodoobustroistvo, 4, 26–31.

Mareci D., Trinca L., Cotea V., Souto R. (2017) Electrochemical studies on the stability and corrosion resistance of two austenitic stainless steels for soft drinks containers. International Journal of Electrochemical Science, 12, 5438–5449.

Barker, G., Jefferson B., Judd S. (2002) The control of bubble size in carbonated beverages. Chemical Engineering Science, 57(4), 565–573.

Goncharuk V., Samsoni-Todorov A., Yaremenko V., Vygovskaya I., Ogenko V. (2014). Prospects of electrodischarge methods of treating water systems. Physical Chemistry of Water Treatment Processes, 36(1), 1–10.

Penga Ch, Crawshawa J., Maitlanda G., Martin Truslera J., and Vega-Maza D. (2013). The pH of CO_2-Saturated Water at Temperatures Between 308 K and 423 K at Pressures up to 15 MPa. The Journal of Supercritical Fluids, 82, 129–137.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)-15

RESIDUES OF ORGANOPHOSPHORUS PESTICIDES IN APPLES

Teaching Assistant Vezirka Jankuloska, PhD
Faculty of Technology and Technical Sciences, Veles,
"St. Kliment Ohridski" University - Bitola, R. Macedonia
Phone: +389 75 421 592
E-mail: vezirka.jankuloska@gmail.com

Prof. Ilija Karov, PhD
Faculty of Agriculture, Shtip
University "Goce Delcev", Shtip, R. Macedonia
E-mail: ilija.karov@ugd.edu.mk

Prof. Gorica Pavlovska, PhD
Faculty of Technology and Technical Sciences, Veles,
"St. Kliment Ohridski" University - Bitola, R. Macedonia
E-mail: gorica.pavlovska@gmail.com

Assistant Gjore Nakov, MSc
Department of Biotechnology and Food Technologies
University of Ruse "Angel Kanchev", Branch Razgrad, Bulgaria
Phone: +359894264250
E-mail: gnakov@uni-ruse.com

Abstract: *Apples have a significant positive impact on human health. In the market, the apple supply lasts all year round and this is made possible by cultivating different types of apples. In the Republic of Macedonia, apples are mostly cultivated in the Prespa Region. During the process of cultivation there are used pesticides which belong to different chemical groups, such as organophosphate, organochlorine, pyrethroids, carbamates, dithiocarbamates etc. The purpose of this research was to determine the residue analysis of organophosphorus insecticides in apples: chlorpyrifos, dimethoate and omethoat. There were taken samples of apples from two different locations, Drmeni and Jankovec from Prespa Refion. The processes of extraction/separation and purification were done using acetonitrile and dispersive SPE-QuEChERS method and for their analysis were applied UPLC-TQ/MS. The concentration of residues of insecticides in apples from Jankovec was in the range of 0.02-0.05 mg / kg while in apples from Drmeni the value was between 0.02 - 0.06 mg / kg. The results show that parts of the analyzed apples containin insecticides with a higher concentration than the maximum residue limit (MRL), therefore the apples are not safe for consumption. Contamination of fruits with pesticides residues in general is one of the most important aspects of the food quality assurance. In order to provide consumers with food that does not contain residues of pesticides above the MRL, it is necessary to reduce the use of pesticides and to increase the application of integrated protection of crops, as well as to monitor and control products from authorized institutions.*

Keywords: *insecticides, apples, QuEChERS, UPLC-TQ/MS*

REFERENCES

Anastassiades, M., Lehotay, S. J., Stajnbaher, D., & Schenck, F. J. (2003). Fast and Easy Multiresidue Method Employing Acetonitrile Extraction/Partitioning and Dispersive solid-Phase Extraction for the Determination of Pesticide Residues in Produce. Journal of AOAC International, 86(2), 412-431.

Jankuloska, V., Karov, I., & Pavlovska, G. (2018). Residue analysis of difenoconazole in apple fruits grown in Republic of Macedonia. Agricultural Science and Technology, 10(1), 63-66.

Jankuloska, V., Karov, I., Pavlovska, G., & Buzlevski, I. (2017). Determination of chlorpyrifos in apple from the Resen region. Journal of Faculty of Food Engineering, Stefan cel mare University-Suceava, XVI, 34-39.

Łozowicka, B. (2015). Health risk for children and adults consuming apples with pesticide residue. Science of Total Environment, 502,184-198.

Official Gazette of the Republic Macedonia. (2013). Rulebook on the general requirements for food safety in relation to the maximum permitted levels of pesticides residues in/or on food No.156

Patil, V. P., Tathe, R. D., Devdhe, S. J., Angadi, S. S & Kale, S. H. (2011). Ultra performance liquid chromatography: A Review. International research journal of pharmacy (IRJP), 2(6), 39-44.

Stocska, J., & Biziuk, M. (2015). Multiresidue method for determination of currently used pesticides in fruits and vegetables using QuEChERS technique. International Journal of Environmental science and development, 6(1), 18-22.

Sadło, S., Szpyrka, E., Jaźwa, A., & Zawiślak, A. (2007). Pesticide residues in fruit and vegetables from Southeastern Poland 2004-05. Polish Journal of Environmental Studies, 16(2), 313-319.

Sinha, N. S., Vasudev, K. & Rao, V. V. M. (2012). Quantification of organophosphate insecticides and herbicides in vegetable samples using the “Quic Easy Cheap Effective Rugged and Safe” (QuEChERS) method and a hight performance liquid chromatography electrospray ionization mass spectrometry (LC-MS/MS) technique. Food Chemistry, 132, 1574-1584.

 Copyrights© http://conf.uni-ruse.bg

SAT–LB-P-1-BFT(R)-16

INVESTIGATION OF THE UNIFORMITY OF DISTRIBUTION OF DIFFERENT TEST COMPONENTS AFTER FOLLOWING DISCHARGE

Assoc. Vitalii Rachok
Department Machines and apparatus of food and pharmaceutical productions,
National University of Food Technology, Ukraine
Phone: +380665848545
E-mail: RachokV3478@gmail.com

Stud. Ivanna Telychkun
Department of Foodstuff Expertise,
National University of Food Technology, Ukraine
Phone: +380939091284
E-mail: yana.telychkun@gmail.com

Assoc.prof. Yuliya Telychkun, PhD
Department Machines and apparatus of food and pharmaceutical productions,
National University of Food Technology, Ukraine
Phone: +380665658549
E-mail: tvill@meta.ua

Abstract: *One of the indicators for assessing the effectiveness of mixing the yeast dough is the homogeneity of the resulting mixture. The studies on mixing the yeast dough with the working elements of different configurations and their effect on the homogeneity of the distribution have been carried out. Using a high-precision microscope, homogeneity of distribution of yeast dough was investigated. The conducted studies allowed to obtain a fixed image of the distribution of components of the yeast dough after mixing with the working elements of different configurations. The uniform distribution of components is observed in the cam and finger working elements, in the screw working elements there is no part of mixing and adhesion of the components into large clumps. The research revealed a number of homogeneous particles that formed after mixing the yeast dough. Distribution coefficient after kneading by cam operating elements is 84%, there is even distribution of components in the structure of yeast dough. After mixing by the "finger" kneading elements, the distribution factor is 67%, therefore the uniform distribution of components in the structure of the dough is achieved. During the mixing with auger working elements, the distribution factor reaches 58%, for these values uniform distribution of components in the structure of the test cannot be reached, there contains traces of non-conductivity in the structure. A comparative analysis on the distribution and homogeneity of the yeast dough after mixing was carried out.*

Keywords: *Mixing, Yeast Dough, Working Elements, Distribution, Homogeneity.*

REFERENCES

The effects of yeast metabolites on the rheological behaviour of the dough matrix in fermented wheat flour dough. Journal of Cereal Science, Volume 82, July 2018, Pages 183-189

Wheat dough imitating artificial dough system based on hydrocolloids and glass beads. Journal of Food Engineering, Volume 223, April 2018, Pages 144-151

Dough and bread made from high- and low-protein flours by vacuum mixing: Part 2. Yeast activity, dough proofing and bread quality. Journal of Cereal Science, Volume 77, September 2017, Pages 275-283

SAT–LB-P-1-BFT(R)-17

JUSTIFICATION OF THE PRODUCTION LINES ARRANGEMENT BASED ON QUANTITATIVE AND GRAPHIC METHODS FOR ASSESSING THE LEVEL OF EQUIPMENT EXCELLENCE

Volodymyr Vasylkov, master's degree
Department of machines and apparatus of food and pharmaceutical productions,
National University of Food Technologies, Ukraine
Tel.: +380955542892
E-mail: neskubaoo@ukr.net

Assoc. Prof. Oleksander Chepeliuk, PhD
Department of machines and apparatus of food and pharmaceutical productions,
National University of Food Technologies, Ukraine
Phone: +380662973636
E-mail: almeat@ukr.net

Assoc. Prof. Olena Chepeliuk, PhD
Department of machines and apparatus of food and pharmaceutical productions,
National University of Food Technologies, Ukraine
Phone: +380665133612
E-mail: lenasandul@yahoo.com

Abstract: *On the example of the estimation of technical and economic indicators of machines for the production of burger products, the task of multicriterial choice of equipment for the production lines arrangement by methods of spectral analysis, Pareto and distance to the goal was solved.*

The method of spectral analysis, is based on the apparatus of dead-end tests, involves comparing all the definite combinations of features which describe the object, has advantages over Pareto and motion to the goal methods, because it provides a generalized mathematical evaluation of the specimens which are considered.

After analyzing five indicators (productivity, capacity, capacity of the feeding bin, weight, overall dimensions) of eight samples of equipment for the burger products production from different manufacturers, it has been established that according to the chosen parameters, the preference should be given to the machine Laminerva C/E 653 1ph.

The correctness of a decision primarily depends on the correct choice of indicators to be compared. In their composition, in the future it is necessary to include indicators of reliability and durability, as well as quality indicators of finished products.

Keywords: *Multicriterial choice, Method of spectral analysis, Pareto front, Eequipment.*

REFERENCES

Orlov, V., Petrunina E. (2013). Vybor tekhnologicheskogo oborudovaniia po otnositelnym pokazateliam tekhnicheskoi otsenki na osnove spektralnogo metoda. Nauchnyi zhurnal NIU ITMO, 4. URL: http://www.processes.ihbt.ifmo.ru

Belton, V., & T. Stewart. (2002). Multiple criteria decision analysis: an integrated approach. Kluwer Academic Publishers, Boston.

Lee, J., Lee, S., Ahn, J., Choi, H.-L. (2018). Pareto front generation with knee-point based pruning for mixed discrete multi-objective optimization. Structural and multidisciplinary optimization, 2.

Skotnicka-Zasadzień B., Biały, W. (2011) An analysis of possibilities to use a Pareto chart for evaluating mining machines' failure frequency. Maintenance and Reliabilitynr, 3, 51–55.

 Copyrights© http://conf.uni-ruse.bg