#### XXX-X.XXX-X-XXX-XX

EFFICIENCY AND EFFECTIVENESS OF APPLICATION

OF SPECIAL SEISMIC PROTECTION METHODS

**Prof. Vladimir Corneev, DcS**

Department of Construction and Mechanics of Structures,

Technical University of Moldova, Moldova

Tel.: +373 22 319129

E-mail: vlak\_2000@mail.ru

**Assoc. Prof. Temenuzhka Bogdanova, PhD**

Department of Technical and Natural Sciences, Silistra Branch,

“Angel Kanchev” University of Ruse

Рhone: 086-821 521

Е-mail: [tbuhcheva@uni-ruse.bg](mailto:tbuhcheva@uni-ruse.bg)

**Abstract:** The paper reviews existing methods of special seismic protection and discloses the added value of their application in the case of high-rise frame structures. Dynamic isolation systems are explored with the purposes: (1) to demonstrate efficiency of rubber isolation bearings and pile foundations with an “intermediate cushion” and (2) to assess effectiveness in terms of commercial benefits. SCAD-based spectral method is used to collect data in support of the structural analysis. The research findings are introduced as a numerical real problem solution, i.e. a simplified model, which can be applied for a 5-storey building. The paper is a tribute to the research contribution of Professor Andrei Reinhorn in the field of earthquake engineering. It covers all the aspects connected to earthquake engineering starting from computational methods, hybrid testing and control, resilience and seismic protection which have been the main research topics in the field of earthquake engineering in the last 30 years. The report provides the most recent advancements in these four different fields, including contributions coming from six different countries giving an international outlook to the topics.

***Keywords:*** *Efficiency, Effectiveness, GPS, Seismic Protection Methods, Model*

**JEL Codes:** L10, L11

REFERENCES

Bachvarov, M. (2006). Tourism in Bulgaria. In Hall, D., Smith, M., & Marciszewska, B. (eds.) (2006). *Tourism in New Europe. The challenges and opportunities of EU enlargement*. Wallingford: CAB International, 241-255.

Boteva, M., (2008). Rechnik po retorika – 150 argumenta na oratora. Sofia: Izdatelstvo „Paradigma” (***Оригинално заглавие:*** *Ботева, М., 2008. Речник по реторика – 150 аргумента на оратора. София: Издателство „Парадигма”.)*

Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management,* 21(1), 97-116.

Cooper, A., & Wilson, A. (2002). *Extending the relevance of TSA research for the UK: general equilibrium and spillover analysis*. Paper presented at the VIth International Forum on Tourism Statistics, 25th-27th September 2002, Budapest.

Kotler, P., Haider, D. H., & Rein, I. (1993). *Marketing places: Attracting investment, industry and tourism to cities, states and nations*. New York: The Free Press.

Wirtz, J., Kimes, S., Ho, J., & Patterson, P. (2002). Revenue management: resolving potential customer conflicts. *Working Paper Series*. School of Hotel Administration.  Cornell University. URL: <http://www.hotelschool.cornell.edu/chr/pdf/showpdf/chr/research/working/revenuemanage.pdf> (Accessed on 16.12.2005).