
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
Phone: 086-821 521
E-mail: 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*

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