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Title

EXPERIMENTAL ASSESSMENT TECHNIQUES FOR SEISMIC ISOLATION AND ENERGY DISSIPATION DEVICES

Convenors

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Description

The knowledge about the effects induced by earthquake excitations on structural systems has grown exponentially in last decades, also as a result of a number of natural disasters occurred in several locations worldwide. Human losses and economic exposure in countries which experienced severe seismic events have led to the need of understanding all the possible strategies for the most efficient reduction of the vulnerability of building and bridge structures, in order to limit the overall seismic risk level. One of the most innovative solutions for the mitigation of the vulnerability of structural systems is represented by seismic isolation, which consists of the design of special devices which introduce a low-stiffness layer between the ground and the considered structure, which provide a period shift and a consequent reduction of the overall base shear and internal forces. At the same time, the resulting high displacements are limited by a certain dissipative capacity, which can be provided by either the installed isolators, or by specific energy dissipation devices. This Technical Session aims at providing precious information to practitioners and devices producers about real applications of seismic isolation and energy dissipation techniques. Special attention will be focused on experimental assessments on full-scale devices, real practice projects, sophisticated modeling strategies of both seismic isolation and energy dissipation devices. We invite the submission of contributions, which will be valuable in order to share experiences and knowledge about real practice applications and testing activities.

Invited Speakers

M. Constantinou ⁵, T. Becker ⁶, U. Özçamur ⁷, F. Weber ⁸, M. Sartori ⁹

Affiliations

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