

Session ID: EVO-4

Title

INTERNATIONAL APPROACHES TO DEVELOP FUNCTIONAL RECOVERY SEISMIC DESIGN STANDARDS

Convenors

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Description

Recent earthquakes (e.g., 2010/2011 Canterbury earthquakes) demonstrated that even when buildings satisfy life safety performance objectives, the accumulated damage raises concerns about post-earthquake function, residual capacity, and reparability; contributing to widespread demolition and long-term closure of damaged buildings. The societal, economic, and environmental impacts associated with post-event building closure jeopardize the fundamental human needs for shelter, security, and prosperity, leading to permanent and disproportionate impacts on community members.

Over the last decade, policymakers and the engineering community are beginning to advocate for improved seismic design provisions targeting recovery-based performance objectives. Various institutions, research groups, and professional organizations around the globe are working simultaneously to develop technical and organizational approaches to solving this multi-dimensional problem.

This session brings together researchers from around the world to compare and contrast various approaches to the development of recovery-based design principles and the implementation of mandatory or voluntary standards. Presentations in this session will cover topics such as the identification of recovery targets for key community services, technical approaches to derive and propose recovery-based design requirements, verification and economic justification, societal risk perceptions, and policy and adoption considerations from an international perspective.

Invited Speakers

H. Ferner ², A. Hulsey ³, C. Molina-Hutt ⁴, E. Opabola ⁵

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