8th International Conference on Building Resilience, 14-16 November 2018, Lisbon

Considering the Sendai Framework for Disaster Risk Reduction 2015-2030 we expect submissions to be aligned, in particular, with priority 3 “Investing in disaster risk reduction for resilience”.

Track 4I

Resilient Structures Under Extreme Loading: Design Approaches, Earthquake Loading, Blast and Impact Loading, Protection & Strengthening, Risk & Vulnerability Analysis

Description

In recent years “Performance, Protection & Strengthening of Resilient Structures under Extreme Loading” have received special attention as a result of numerous natural disasters, terrorism threats and aging related deteriorated structures. Until early 2000’s, there were very few forums on this theme to exchange ideas and research results.

The main mission of this Track is to provide an opportunity for researchers, practitioners and engineers, specializing in structural, material performance, extreme loading, and structural management and protection fields, to share their research, technology and expertise with their peers at an international forum.

Main questions to be responded

- How a resilient structure should be designed?
- How Innovative control devices can improve resilience in buildings under natural and manmade disasters?
- How protection, strengthening and retrofitting can reduce the risk and vulnerability under extreme loading?

Goals

To discuss and better understand, the role played by civil and structural engineers as well as the co-operative relationship between designers, urban planners, NGOs and stakeholders in reducing risk and building resilience in post-disaster recovery and rebuilding processes that emphasizes livelihoods and social sustainability issues. In line with the 4th priority of the Sendai Framework and relying on case studies, the aim of this track is to identify methodologies, achievements, and failures in this approach.

Themes

- Performance of structures under impact loading, blast and explosive loading, shock loading, fire and seismic loading

- Strengthening of structures under extreme loading: assessment of structural condition, coatings and surface treatments, strengthening and repair methods, retrofitting for seismic loading

- Performance of materials in construction industry: constitutive response under high strain-rates, influence of low and high temperatures (fire), cyclic and other dynamic loading, testing methods, standardization and performance criteria, specialized materials including fibre-reinforced and high performance concrete, specialized steels, wood composites and fibre-reinforced polymers

- Structural management and protection toward a resilient community: protection concepts and design, underground facilities, structural health monitoring and advanced sensing and fire protection materials

- Building codes revision to address risk and resilience in disaster-prone areas

- Post-disaster recovery, rebuilding and resettlement assessment with a focus on housing issues

Deadline

Abstract submission closes **15 April**, 12PM, GMT + 1,00 TIME

For more information and online submission please visit buildresilience.org/2018

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