Special Issue

Achieving Resilience and Other Challenges in Earthquake Engineering

Message from the Guest Editors

Approximately 20,000 people are killed every year by this natural phenomenon and the average annual economic loss is around USD 100 billion worldwide. Consequently, enhancing knowledge in the field of seismic structural engineering is a priority in order to increase the resilience of our society against earthquakes.

The main topics covered by the Special Issue are the numerical modelling of structures subjected to earthquake loadings, experimental studies on the response of structures and on innovative strengthening techniques, new design approaches and seismic protection strategies, cultural heritage site preservation, structural health monitoring, and risk analysis under seismic hazards. Applications to both existing and new structures are welcomed, considering a wide variety of structural typologies (buildings and infrastructures) and materials (reinforced concrete, steel, masonry, timber).

This new Special Issue will garner excellent contributions and high-impact research in the field of seismic risk reduction and will show how novel materials/devices and effective design approaches may improve the final seismic performance of structures.

Guest Editors

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Prof. Dr. Nicola Impollonia

Dr. Teresa Lombardo

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Deadline for manuscript submissions

closed (20 September 2024)

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About the Journal

Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

Editor-in-Chief

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