



Innovative Solutions for Enhancing Seismic Resilience of Buildings

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Message from the Guest Editors

Dear Colleagues,

Despite the history of destructive earthquakes, many countries still rely on outdated and traditional construction techniques for their buildings, leaving them susceptible to significant structural damage, collapses, and disruption of services in an earthquake event. This vulnerability can lead to loss of life, significant economic losses, and interrupting emergency response efforts. To mitigate these adverse impacts, transitioning from traditional construction methods to more advanced technologies and alternatives is essential. One such strategy is developing innovative solutions that enhance the seismic resilience of buildings against extreme events, like severe earthquakes. This will help to minimize the detrimental effects of earthquakes, control damage, avoid structural collapse, and preserve human life. This Special Issue focuses on innovative seismic solutions with a low-damage concept. We welcome papers on topics including, but not limited to, the following:

- Low-damage systems;
- Passive, active, and semi-active control methods;
- Self-centering systems;
- Rocking systems;
- Innovative dampers.

Guest Editors



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Special Issue



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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.

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