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# Seismic Vulnerability Analysis and Mitigation of Building Systems

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Deadline for manuscript submissions:
**closed (10 January 2024)**

## Message from the Guest Editors

Dear Colleagues,

It is well known that earthquakes can produce significant losses to the built environment worldwide, especially in seismic prone areas characterized by a great exposure and vulnerable constructions. Among them, buildings certainly play a key role, so their seismic design, the analysis of their main vulnerabilities, and the strategies necessary to reduce such weak points are key issues for next-generation resilient cities. This is true both for newly designed buildings and for existing (low-standard) buildings.

This Special Issue aims to collect works on the seismic design of new building systems or the assessment of existing ones, along with the analysis of strengthening strategies required to mitigate their potential vulnerabilities and reduce expected losses in case of earthquake. Both numerical and experimental studies are welcomed. Topics of interest include but are not limited to:

- Methods of seismic analysis;
- Seismic assessment of as-built buildings;
- Seismic risk analysis;
- Vulnerability studies;
- Large-scale applications;
- Analysis of case-studies;
- Experimental studies;
- Strengthening techniques.

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## Editor-in-Chief

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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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