



## Best Practices of Resilient Buildings (and Districts) and Post-disaster Reconstruction

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Deadline for manuscript  
submissions:

**10 July 2024**

### Message from the Guest Editors

The scientific and institutional interest towards the management of environmental risks on the built environment has increased significantly. Numerous are the studies that focus on the prevention and preparedness phase, fewer are those concentrate on the response and recovery phases. Current mutirisk conditions require design responses oriented towards disaster risk management and post-disaster reconstruction to improve city resilience; therefore, the special iusse aims at investigate, but not limited to, the following topics:

- Disaster risk management (Prevention, preparedness, response, recovery)
- Mitigation measures
- Resilient building design
- Post-disaster construction e demolition waste management
- Recycling and reuse of disaster waste
- AI approaches to support post-disaster waste management
- Mathematical and simulation models
- Cascading effects modelling
- Building life cycle and innovative management systems
- Case studies and best practices of resilient buildings
- Innovative construction materials
- Building Information Modeling





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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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