Special Issue

Structural and Geotechnical Seismic Isolation Systems Using Sustainable Materials

Message from the Guest Editors

Among the various risks affecting buildings, earthquakes remain highly unpredictable and destructive. Seismic isolation is an effective means of reducing structural vulnerability to earthquake damage. Aligned with global sustainability goals, recent research increasingly integrates renewable, recycled, and ecofriendly materials into isolation systems.

This Special Issue seeks original research and reviews on sustainable materials that enhance the resilience of structures and geotechnical systems. Topics of interest include:

Sustainable isolation systems for buildings and bridges; Experimental and numerical studies on structural response;

Hybrid systems combining conventional and ecofriendly components;

Soil-structure interaction and soil isolation techniques; Sustainable approaches to foundations, retaining walls, and embankments;

Life cycle assessment and durability studies; Future perspectives for standards and policies in sustainable earthquake engineering.

The list is not exhaustive, and researchers are encouraged to submit contributions on additional topics relevant to sustainable seismic isolation and earthquake-resilient design.

Guest Editors

Dr. Angela Fiamingo

Dr. Andrea Floridia

Dr. Glenda Abate

Deadline for manuscript submissions

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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).