Special Issue

Damping Control of Building Structures and Bridge Structures

Message from the Guest Editor

The trend in engineering structures has been toward them becoming taller and more slender. These structures are susceptible to various external dynamic loads. To improve the dynamic performance and safety of these structures, new types of damping devices, damping control methods, and vibration analysis strategies are extremely important, considering the complex loads and service conditions, and there is a growing need for new approaches to be proposed. This Special Issue aims to collect and disseminate the latest research on the methods, devices, performance, and application of structural vibration control. We invite original research articles and reviews that encompass a wide range of topics including, but not limited to:

- Multi-disaster vibration analysis of structures;
- Advanced damping control strategies;
- New damping devices, e.g.,inerter, negative stiffness, metamaterials, etc.;
- AI technology in structural vibration control;
- Applications of structural vibration control devices.

For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/buildings/special_issues/K4H3SZG5VD

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Deadline for manuscript submissions

closed (20 July 2025)

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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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