



Research in Structural Control and Monitoring

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Message from the Guest Editors

Dear Colleagues,

Structural control and monitoring are of great importance to maintain the safety of structures. Although the present methodologies and techniques are capable of resolving some problems, the emergence of nondestructive tests, machine learning in structural control and monitoring, image-based system evaluation, and structural assessments using multiple types of information demand the development of numerical simulation and the experimental demonstration of new methodologies and techniques.

This special issue is about the latest theoretical developments and experimental techniques in structural control and monitoring. Topics related to this special issue include:

- Structural health monitoring
- Structural control-related techniques
- Nondestructive testing and evaluation
- Machine learning in structural control and monitoring
- Image-based system evaluation/identification
- Analytical and numerical simulation modeling of structures with damages
- Equipment evaluation using vibration information
- Advanced signal processing procedures for damage assessment;
- Condition monitoring systems
- The optimal placement of sensors





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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