



Structural Health Monitoring and Vibration Control

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Message from the Guest Editors

Structural health monitoring and vibration control are two important research subjects that are expanding in the engineering and theoretical fields. This Special Issue focuses on structural health monitoring and vibration control for various extensive engineering and theoretical problems using various estimation, control, optimization, and intelligence technologies, including estimation and identification methods, control strategies and methods, sensing and actuating technology, application analysis and experiments, data processing, machine learning and inference, neural network representation, etc. This issue will bring together and share recent relevant research, aiming to enable extensive development in this area. The potential topics for this issue include, but are not limited to, the following:

- Structural health monitoring;
- Estimation method and applications;
- Vibration control;
- Control method and applications;
- Sensor and actuator technology and applications;
- Data processing technology and applications;
- Machine learning and inference and applications;
- Neural network algorithm and applications;
- Smart structural dynamics.



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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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