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# Advances and Applications in Structural Vibration Control

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## Message from the Guest Editors

Engineering structures characterized by increased height and slenderness, such as high-rise buildings, expansive cross-sea bridges, wind turbines and floating platforms, are frequently located in regions with high-intensity dynamic hazards and challenging marine environments. These structures are susceptible to various external dynamic loads, including winds, earthquakes, sea waves and vibrations induced by construction or subway activities. Effective structural vibration control is paramount for bolstering the resilience and safety of such engineering structures.

This Special Issue aims to explore the recent advances and applications of structural vibration control, and potential topics include, but are not limited to, the following:

- Seismic retrofitting techniques;
- Passive/active/semi-active/hybrid control;
- Advanced vibration control strategies;
- Vibration control of engineering structures;
- Novel control devices, i.e., inerter, negative stiffness and metamaterials, etc.;
- Applications of artificial intelligence in structural vibration control;
- Applications of different control devices;
- Vibration control of smart structures.

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## 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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