Special Issue

Vibration Control and Energy Harvesting Towards Autonomous Structural Systems

Message from the Guest Editors

The ongoing evolution of smart and sustainable infrastructures and systems necessitates a new generation of structural systems that are not only adaptive and resilient but also self-sufficient in terms of energy and functionality. In this context, the integration of vibration control, energy harvesting, sensing, passive and active control technologies—particularly through the use of intelligent materials and electromechanical coupling effects—opens promising avenues for achieving autonomous structural systems. This Special Issue, "Vibration Control and Energy Harvesting Towards Autonomous Structural Systems," aims to bring together cutting-edge research in this interdisciplinary field. We invite contributions that explore novel theories, modelling techniques, materials, and experimental validations to advance the performance, efficiency, and applicability of vibration-powered systems. In particular, we welcome studies that address the coupling between vibration, wave propagation, energy conversion, and transduction in the context of energy-autonomous devices and structures.

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Message from the Editor-in-Chief

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