Special Issue

Advanced Technologies for Structural Health Monitoring in Engineering Structure

Message from the Guest Editors

This Special Issue will focus on the main issues of structural engineering health monitoring technology, discuss theories and methods for intelligent structural health monitoring driven by artificial intelligence technology, including robot, unmanned aerial vehicle visualization and other automatic monitoring technologies, big data analysis and processing, and deep integration with artificial intelligence, providing a basis and methods for the early warning of various disasters, contributing to on-demand maintenance and rapid recovery of structural engineering, and generating new technologies and application scenarios for intelligent structural health monitoring. This Special Issue encourages researchers, practitioners and managers to move from the traditional "**periodic monitoring and detection, with passive response**" model to the intelligent paradigm of "**real-time perception, integration of sky–space–ground monitoring technologies, intelligent early alarms, and active maintenance and prevention**", creating more durable and safe, as well as more sustainable, buildings and infrastructure.

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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.

Editor-in-Chief

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