Special Issue

Structural Health Monitoring and Intelligent Safety Assessment in Civil Engineering

Message from the Guest Editors

This Special Issue will provide an overview of the existing knowledge on new approaches for civil engineering structural monitoring. Original research, theoretical and experimental works, case studies, and comprehensive review papers are requested for possible publication. Topics relevant to this Special Issue include, but are not limited to, the following subjects: New approaches for SHM;New sensors and sensorial networks;Monitoring strategies for construction sustainability;New surrogate modeling techniques tailored to some computationally demanding problems;Model updating with structural health monitoring;Structural health monitoring engineering practices that accommodate uncertainties;Novel uncertainty quantification techniques in model updating;Machine learning and data-driven techniques;Intelligent techniques for SHM;Intelligent construction;Finite element modeling techniques;Finite element analysis;Safety assessment;Resilience against disasters;Risk assessment;Disaster prevention and reduction;Building life cycle assessment. For further reading, please follow the link to the Special Issue Website at: https://www.mdpi.com/journal/buildings/special_issues/HE839R796G

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Deadline for manuscript submissions

20 August 2025

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 4.4

mdpi.com/si/220406

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About the Journal

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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