Special Issue

Autonomous Strategies for Structural Health Monitoring

Message from the Guest Editors

This special issue aims to highlight the latest advancements, challenges, and future directions in the application of autonomous systems for structural health monitoring in building environments and related applications. We are seeking original research articles, case studies, and comprehensive review papers that address, but are not limited to, the following topics: Advances in autonomous sensor technologies for structural monitoring; AI and machine learning applications in predictive maintenance, optimization, and structural health assessment; Case studies of autonomous monitoring systems in various structures like bridges, buildings, and industrial facilities, with a focus on AI and optimization applications in improving monitoring efficiency; Challenges and solutions in data acquisition, processing, and interpretation for autonomous structural health monitoring, using AI and optimization techniques; Integration of IoT and smart technologies in structural health monitoring systems.

Guest Editors

Dr. Mohammad Fotouhi

Assistant Professor, Structural Health Monitoring, TU Delft, Delft, The Netherlands

Dr. Siamak Pedrammehr

1. Faculty of Design, Tabriz Islamic Art University, Tabriz, Iran
2. Institute for Intelligent Systems Research and Innovation, Deakin University, Waurn Ponds, VIC, Australia

Deadline for manuscript submissions

closed (31 March 2025)

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 4.4

mdpi.com/si/196017

Buildings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
buildings@mdpi.com

mdpi.com/journal/buildings

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 4.4

mdpi.com/journal/buildings

MDPI

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.

Editor-in-Chief

Prof. Dr. David Arditi
Construction Engineering and Management Program, Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, 3201 South Dearborn Street, Chicago, IL 60616, USA

Author Benefits

High Visibility:

indexed within SCIE (Web of Science), Scopus, Ei Compendex, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Construction and Building Technology) / CiteScore - Q1 (Architecture)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).