

Special Issue

Structural Safety Evaluation and Health Monitoring

Message from the Guest Editors

This Special Issue will contribute to the field of structural safety evaluation and health monitoring. Its purpose is to facilitate understanding of durability, the risk and reliability of constructed facilities, and to inspire performance-based design and evaluation, which is essential to the lifecycle resilience assessment of structures. This includes structural durability evaluation, performance-based seismic design and evaluation, application of machine learning techniques in structural safety evaluation, digital twins and building information modeling, advanced finite element modeling techniques, small data learning for structural damage identification, virtual and mixed reality for health and safety controls, nondestructive testing, structural health monitoring algorithms, energy storage system and modeling, and other approaches. Research on the concept of smart construction and green building design is also welcome. This will contribute to the next of generation smart buildings. For further reading, please follow the link to the Special Issue Website at: https://www.mdpi.com/journal/buildings/special_issues/O40IHMEFMP

Guest Editors

Dr. Lizhao Dai

Dr. Wei Zhang

Dr. Sun-Jin Han

Dr. Dichuan Zhang

Deadline for manuscript submissions

20 August 2025



Buildings

an Open Access Journal
by MDPI

Impact Factor 3.1
CiteScore 4.4



[mdpi.com/si/209908](https://www.mdpi.com/si/209908)

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

[mdpi.com/journal/
buildings](https://www.mdpi.com/journal/buildings)





Buildings

an Open Access Journal
by MDPI

Impact Factor 3.1
CiteScore 4.4



[mdpi.com/journal/
buildings](https://mdpi.com/journal/buildings)



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).