

# Special Issue

## Advances in Building Structure Analysis and Health Monitoring

### Message from the Guest Editors

Rapid advancements in artificial intelligence (AI) have opened new frontiers in building structure analysis and health monitoring. This Special Issue focuses on the integration of AI technologies to enhance the safety, efficiency, and longevity of building structures. Contributions that explore innovative AI-based techniques, such as machine learning, deep learning, and data-driven models, for structural analysis, damage detection, and predictive maintenance, are invited. We are particularly interested in interdisciplinary approaches that combine AI with traditional structural engineering methods, enabling real-time monitoring and adaptive solutions to structural challenges. Our aim is to provide a platform for groundbreaking research that contributes to the evolution of intelligent building systems.

### Guest Editors

Prof. Dr. Gongfa Chen  
Prof. Dr. David H. Bassir  
Dr. Shuai Teng

### Deadline for manuscript submissions

30 April 2026



## Buildings

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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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### Editor-in-Chief

Prof. Dr. David Arditi

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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).