

# Special Issue

## Advanced Studies in Nonlinear Dynamics, Numerical Modelling and Applications in Masonry Structures

### Message from the Guest Editor

Masonry, one of the oldest construction types, remains dominant globally for new buildings and is the base material for countless historical structures. The wide application of masonry necessitates a thorough understanding of its mechanical and physical parameters to enable precise numerical calculations and computational analyses of complex buildings.

This need is critical for analyses involving inelastic states and dynamic loads, such as seismic shocks, mining activity, or urban transport vibrations. Despite years of research, a more precise description of masonry's actual behavior is still required, especially for historical and new types of materials.

The aim of this Special Issue of *Buildings* is to expand knowledge on masonry behavior under various loading conditions. The scope covers theoretical, experimental, and numerical studies, including the application of nonlinear dynamics to describe complex responses under variable and/or cyclic influences. We also seek work on material models (existing and proposed modifications) useful for advanced computational and numerical analyses.

We invite the submission of full-text articles, announcements, and reviews to this Special Issue.

### Guest Editor

Prof. Dr. Jan Kubica

Department of Structural Engineering, Silesian University of Technology, 44-100 Gliwice, Poland

### Deadline for manuscript submissions

31 October 2026



## Buildings

an Open Access Journal  
by MDPI

Impact Factor 3.1  
CiteScore 4.4



[mdpi.com/si/264483](https://mdpi.com/si/264483)

*Buildings*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[buildings@mdpi.com](mailto:buildings@mdpi.com)

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