Special Issue

Analysis, Calculations, Evaluations, and Controls of High-Rise/Large-Span Structures

Message from the Guest Editors

High-rise/large-span structures such as tall buildings, high-rise wind turbines, bridges, stadiums, etc., are known to be important, but may exhibit sophisticated multi-mode, multi-body vibrations under complicated environmental loadings involving earthquakes, winds, or even hydraulic, human-induced, constructional loading. For this Special Issue, we invite original research articles on the analysis, calculations, evaluations, and controls of high-rise/large-span structures, as well as comments and case studies. The submitted materials may include computational mechanics, vibration analyses and controls, performance evaluations of infrastructures, testing techniques, design methods, etc. Specifically, we are seeking original research articles on one or more of, but not limited to, the following topics:

- Resilience analysis of high-rise/large-span structures;
- Modeling of engineering loads;
- Performance improvement techniques and methodologies;
- Full-life evaluation of infrastructures

Guest Editors

Dr. Meng Wang

Dr. Jiaxu Shen

Dr. Wenjin Zhang

Dr. Hua-Jian Jin

Deadline for manuscript submissions

30 September 2025



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/218758

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

mdpi.com/journal/ buildings





an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4





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).