

Special Issue

Novel Steel and Steel-Concrete Composite Structures

Message from the Guest Editors

Steel and steel-concrete composite structures have experienced rapid developments in recent years. To meet the requirements of practical engineering structures, including high bearing capacity, high seismic resistance and ductility, large span, good resilience, economic efficiency, etc., novel steel and steel-concrete composite structures are expected to improve the performance of current structural systems. The research toward novel steel and steel-concrete composite structures includes the development of novel structures, the structural behavior of novel structures and design approaches. Detailed investigations may be conducted by establishing new analytical and simulating techniques. The aim of this Special Issue is to promote novel steel and steel-concrete composite structural systems and expand their applications. The scope of this Special Issue includes, but is not limited to, the following aspects:

- Novel steel structures
- Novel steel-concrete composite structures
- Steel plate-concrete composite structures and technique
- Earthquake-resistant structures
- Large-span and spatial structures
- Composite structures with high-performance materials

Guest Editors

Prof. Dr. Jingzhong Tong

Prof. Dr. Wenhao Pan

Prof. Dr. Genshu Tong

Deadline for manuscript submissions

closed (10 October 2025)



Buildings

an Open Access Journal
by MDPI

Impact Factor 3.1
CiteScore 4.4



mdpi.com/si/169620

Buildings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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 15.1 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).