Special Issue

High-Performance Steel Structures

Message from the Guest Editors

High-performance steel is a game-changer in the construction industry due to its exceptional properties. This class of steel has superior mechanical properties, including higher strength, better corrosion resistance. cold formability, and improved ductility characteristics compared to traditional steel. In addition, highperformance steel is environmentally friendly and supports the global movement towards construction waste reduction and energy efficiency, which aligns with the UN's sustainable development goals. The use of high-performance steel in construction not only enhances the aesthetic appeal of a structure but also provides better durability and sustainability. We invite authors to submit papers for potential inclusion in this Special Issue, on themes that may include but are not limited to:

High-strength steel structures:

Stainless steel structures:

Cold-formed steel members;

The stability of steel beams and columns;

Seismic behaviour of steel structures;

Web crippling of thin-walled sections;

The optimization of steel members

Guest Editors

Dr. Mohammad Adil Dar

Department of Civil and Structural Engineering, The University of Sheffield, Sheffield, UK

Dr. Seyed Mohammad Mojtabaei

Department of Civil and Structural Engineering, University of Sheffield, Sheffield, UK

Deadline for manuscript submissions

closed (31 August 2024)



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/173034

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).