

# Special Issue

## Performance Analysis of Steel Structure in Construction

### Message from the Guest Editors

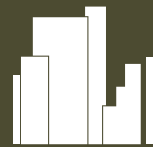
Metal structures are widely used in the construction of buildings and bridges. Steel has a high strength-to-weight ratio, which leads to slender structures. In order to properly design slender structures, local and global buckling analysis must be taken into account, considering equivalent geometric imperfections, residual stresses and nonlinear geometric and material behaviour. This analysis can be performed either numerically using finite element analysis with solid, shell or beam elements or experimentally in order to ensure the safety of the structures. This Special Issue seeks high-quality papers considering the behaviour of steel structures, their stability, mechanics, design and testing, reliability, non-linear analysis, thin-walled structures, cold-formed structures, hot-rolled and welded sections, plate and shell structures. State of the art papers are also welcome. For further reading, please follow the link to the Special Issue Website at: [https://www.mdpi.com/journal/buildings/special\\_issues/420X830H47](https://www.mdpi.com/journal/buildings/special_issues/420X830H47)

### Guest Editors

Prof. Dr. Antonio Agüero  
Prof. Dr. Ivan Baláž  
Dr. Yvona Koleková

### Deadline for manuscript submissions

closed (31 December 2023)



## 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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### Author Benefits

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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)

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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).