

Special Issue

Advanced Studies in Steel Structure

Message from the Guest Editors

This Special Issue invites high-quality contributions addressing the behavior, design, and analysis of steel structures, with a focus on stability, safety, and advanced performance assessment. Topics of interest include, but are not limited to, the following:

- Buckling and post-buckling behavior: axial, flexural, torsional, flexural-torsional, lateral-torsional, and combined loading;
- Nonlinear geometric and material analysis;
- Thin-walled and cold-formed steel structures;
- Hot-rolled and welded sections;
- Plate and shell structures;
- Structural joints and connection behavior;
- Seismic analysis and earthquake-resistant design;
- Fire resistance and performance under elevated temperatures;
- Experimental investigations and large-scale testing;
- Hybrid testing methodologies (numerical-experimental integration);
- Finite element modeling and advanced simulation techniques;
- Structural reliability and probabilistic assessment;
- Design optimization and code development;
- State-of-the-art reviews and benchmark studies.

More details:

https://www.mdpi.com/journal/buildings/special_issues/94AFR080L6

Guest Editors

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Prof. Dr. Pedro Martin-Concepcion

Dr. Ana Almerich-Chulia

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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.

Editor-in-Chief

Prof. Dr. David Arditi

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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).