Special Issue

Strength, Design and Performance of Light-Weight Metal Structures

Message from the Guest Editors

Lightweight metal structures are extensively used in the construction industry due to their high strength-to-weight ratio, enhanced mechanical properties, and reduced cost and constructability compared to other structural materials..... This Special Issue aims to collate the most recent innovative research in this area to enhance their structural design and analysis. Topics of interest include but are not limited to:

- Innovative cold-formed steel and aluminum structural products;
- Structural response of cold-formed lightweight members under combined actions;
- Advanced numerical modeling;
- Seismic performance evaluation of lightweight steel and aluminum structures;
- Design of cold-formed steel and aluminum members;
- Performance of lightweight prefabricated systems;
- Extreme loading conditions, e.g., fire, impact;
- Sustainability and life-cycle assessment of lightweight structures;
- Lightweight metal and timber hybrid structures

For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/buildings/special_issues/46431NHX09

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Deadline for manuscript submissions

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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

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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).