



Behavior, Design and Stability Analysis of Conventional and Modular Steel Structures

Guest Editor:

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Message from the Guest Editor

The scope of this Special Issue encompasses a wide range of topics within the field of the design, behavior, and stability of conventional and modular steel structures, including, but not limited to:

- Stability analysis of steel structures, including buildings, bridges, off-shore platforms, transmission and communication towers, etc.;
- Buckling and post-buckling behavior of thin-walled, cold-formed, stainless, and 3D-printed steel structures and elements;
- Robustness assessment of conventional and modular systems against uncertainties, extreme loading conditions, environmental factors, material degradation, and design flaws;
- New approaches in the design of conventional and modular steel structures, components, and elements with limit-state, performance-based, capacity, or plastic design approaches;
- Experimental and numerical studies in steel structures: understanding complex structural behaviors, validating analytical models, and verifying theoretical approaches;
- Novel steel and composite steel-concrete beams, joints, columns, and built-up sections.





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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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