



Studies on Metal Materials and Their Applications in Building Structures

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Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to promote a debate on the recent advances and future challenges for metal materials and buildings. We envisage that researchers will share their recent achievements in the design and assessment of steel, aluminum, or hybrid structures at the local and global seismic levels. Reviews of existing codes and proposals for the implementation of enhanced rules in the next generation of standards will be highly appreciated. The main topics covered within this thematic Issue will cover the following aspects:

- material testing; stress-strain curves; high cycle fatigue; low cycle fatigue;
- connections; novel alloys; codification for design, assessment, and retrofitting;
- civil buildings; industrial buildings; light-weight structures; non-structural components;
- cyclic behaviour of members, joints, and components;

Please consider that the above topics may not be exhaustive. As such, researchers should feel free to submit contributions on any additional topic that could be relevant to the field of steel structures in seismic areas.





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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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