

Special Issue

Advances in Cold-Formed Steel Structures

Message from the Guest Editors

Cold-formed steel (CFS) members are increasingly utilised in the construction fields in recent decades, due to their superior advantages of strength-to-weight ratios, prefabrication convenience (i.e., easy erection and installation), the possibility of mass production, and the economical long-term costs. The utilisation of CFS members can, meanwhile, be considered a 'green and sustainable operation', as it can reduce the carbon emissions to the environment, compared with other construction materials. Moreover, CFS members enable various novel cross-section types to be fabricated and, thus, can be used in different occasions, e.g., portal frames, space grid systems, rack structures, and photovoltaic brackets structures. This Special Issue of *Buildings*, entitled "Advances in Cold-formed Steel Structures", aims to showcase the state-of-the-art investigations on CFS members and structures. Topics of interest include, but are not limited to:

- Cold-formed high strength steel members;
- Cold-formed stainless steel members;
- Cold-formed built-up section members;
- Composite CFS members;
- Machine-learning-based design for CFS members;

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Deadline for manuscript submissions

closed (31 May 2024)



Buildings

an Open Access Journal
by MDPI

Impact Factor 3.1
CiteScore 4.4



mdpi.com/si/142513

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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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