Special Issue

Optimized Design and Modelling in Modern Steel and RC Structure Constructions

Message from the Guest Editors

In order to design a building that would be the most economical and rational given the choice of structural systems, many designing solutions at the early stage of designing must be made. However, in modern times, considering the complexity of many modern buildings, designers do not have the necessary time to develop, analyze, and compare any significant number of options. To solve this problem, it is convenient to use the high potential of computer-aided design. In order to implement automated search for design solutions, it is proposed to develop numerical algorithms and methods which will significantly increase the productivity of the designer and reduce the complexity of designing. This Special Issue deals with optimized design and modeling in modern steel and RC structures. Topics of interest include but are not limited to:

- Advances in the optimization of reinforced concrete structures;
- Advances in the optimization of steel structures;
- The use of methods for structural optimization of reinforced concrete structures;
- The use of methods for structural optimization of steel structures.

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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.

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