Special Issue

Advances in Steel–Concrete Composite Structural Systems

Message from the Guest Editors

The steel–concrete composite structural system has the advantages of the fast construction speed of a steel structure, and the large rigidity and low cost of concrete structures, which have been widely used in high-rise and super-high-rise building structures, large-span bridges, wind power facilities and other infrastructure projects. At present, research on steel–concrete composite structures mainly focuses on the component and joint levels, and a large amount of experimental data have been accumulated for commonly used composite beams, composite columns and composite joins; in addition, relatively complete design theories and methods have been established. However, research on component integration and system optimization at the system level is still in its infancy, which lags behind engineering practice. Novel and innovative strategies for the efficient design and rapid construction of steel–concrete composite structural systems are urgently needed. This Special Issue aims to provide selected contributions to advances in the design, construction, simulation, and maintenance of steel–concrete composite structural systems in diverse areas and countries.

Guest Editors

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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.

Editor-in-Chief

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