



Advancements in Disaster-Resistance Capabilities of Steel–Concrete Composite Structures

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Deadline for manuscript submissions:

closed (10 March 2024)

Message from the Guest Editors

Steel–concrete composite structures are widely applied in modern structural engineering. With the development of research on high-performance materials, including steel and concrete, new areas of studies related composite structures have also emerged. Meanwhile, the advantages of composite structures facilitate the full assembly of structures, and the improved structural behaviors of the prefabricated composite structures such as integrity, seismic performance, and fatigue performance have garnered the attention of researchers worldwide. The aim of this Special Issue is to collate research exploring the recent advancements made in the development of composite structures. Potential topics include, but are not limited to, the following:

- Mechanical performance of novelty shear connectors;
- Behaviors of steel-concrete composite members;
- Numerical modeling of composite structures;
- Integrity of prefabricated composite structures;
- Disaster-resistance performance of composite structures;
- Light-weighted structures;
- UHPC-normal concrete composite structures;
- Fatigue and fracture performance of UHPC composite structures.





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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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