



Green, Resilient, and Sustainable Composite Structures: Development, Design, and Construction

Guest Editors:

Prof. Dr. Siqi Lin

Dr. Xifeng Yan

Dr. Binglin Lai

Prof. Dr. Qingfei Gao

Deadline for manuscript
submissions:
closed (25 April 2024)

Message from the Guest Editors

Dear Colleagues,

In the past few decades, innovative composite structures, e.g., steel–concrete structures and FRP-confined concrete structures, have been widely used in civil engineering because of their high performance. As climate change and extreme natural disasters accelerate, green, resilient, and sustainable composite structures show a promising future and have been emerging as highly-focused research areas. This Special Issue is dedicated to the advances in the development, design, and construction of green, resilient, and sustainable composite structures. The topics of interest include (but are not limited to):

- Design of composite structures with green and sustainable materials.
- Development and design of earthquake-resilient prefabricated composite structures.
- Self-centring composite structures.
- Machine-learning-based design/modelling of composite structures.
- Reliability analysis of composite structures.
- Composite structures under extreme loads or events (fire/impacts/earthquakes).
- Novel numerical analysis methods of composite structures.
- Construction of composite structures.





Editor-in-Chief

Prof. Dr. David Arditi

Construction Engineering and Management Program,
Department of Civil,
Architectural, and Environmental
Engineering, Illinois Institute of
Technology, 3201 South
Dearborn Street, Chicago, IL
60616, USA

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (Architecture)

Contact Us

Buildings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/buildings
buildings@mdpi.com
X@Buildings_MDPI