



Sustainability in Building Structures: Optimization, Strengthening and Rehabilitation

Guest Editor:

Dr. Xue Zhang

State Key Laboratory of Coastal and Offshore Engineering, School of Civil Engineering, Dalian University of Technology, Dalian 116024, China

Deadline for manuscript submissions:

closed (31 December 2025)

Message from the Guest Editor

The built environment is the area of human activities that uses the most energy and resources. With climate change threatening ecosystems, biodiversity, and human life, research on energy-efficient structures has become critical. In recent decades, numerous structures and transport infrastructure projects have been built and are now increasingly unsustainable due to various factors. The optimization of these building structures is a measure of economic and environmental improvement. This Special Issue invites high-quality research studies on sustainability in building structures, including optimization, strengthening, and rehabilitation. Related innovative research articles focused on the sustainability of the construction of buildings and transportation infrastructure are also welcomed. Both experimental and modeling studies will be considered. Submitted studies must clearly identify their novelty and contribution to the state of the art.





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 SCIE (Web of Science), Scopus, Ei Compendex, Inspec, and other databases.

Journal Rank: JCR - Q2 (Construction and Building Technology) / 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