Special Issue

Post-Disaster Resilience and Repair Cost Modelling for Sustainable Construction

Message from the Guest Editors

The escalating impacts of climate change and extreme weather highlight the urgent need to integrate resilience and sustainability into the built environment. Postdisaster resilience is the ability of infrastructure to absorb shocks, recover rapidly, and adapt to future hazards, while sustainable construction ensures that recovery efforts minimise environmental impact. optimise resource use, and support community wellbeing. We invite researchers, practitioners, policymakers, and industry experts to contribute original papers that advance knowledge and practice in this field. We welcome theoretical, empirical, and casestudy-based submissions that address innovative tools, methodologies, and policy frameworks for resilient and sustainable recovery. Key topics include (but are not limited to):

- Post-disaster damage assessment methodologies
- Repair cost estimation models and uncertainty analysis
- Life-cycle costing in disaster recovery
- Integration of low-carbon and durable materials in reconstruction
- Digital technologies (BIM, GIS, AI) for resilience and cost modelling
- Policy and insurance frameworks for sustainable rebuilding
- Case studies of resilient reconstruction in disasteraffected region

Guest Editors

Dr. Rotimi Joseph

Dr. Hong Xiao

Prof. Dr. Colin Booth

Deadline for manuscript submissions

20 May 2026



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/261565

Buildings Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 buildings@mdpi.com

mdpi.com/journal/buildings





an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4





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.

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

Author Benefits

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)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).