Special Issue

Development in Low-Carbon, High-Performance Concrete Technology

Message from the Guest Editors

High-performance concrete is one of the indispensable materials in modern urban construction. Its quality is directly related to the quality of construction projects and is the fundamental guarantee for ensuring the quality of projects. In addition, low carbon and environmental protection have become new requirements for the concrete industry in modern society. This Special Issue aims to deeply explore the performance change mechanism of building materials, stimulate innovation, promote the development of low-carbon concrete technology and promote the sustainable development of the construction industry. The topics for this Special Issue include (but are not limited to) the following:

- Low-carbon concrete;
- High-performance concrete;
- Sustainable building materials;
- Mineral admixtures:
- Industrial waste and by-products;
- Alternative cementitious materials;
- Solid waste-recycled concrete...

For more information about the special issue, please click on the link below:

https://www.mdpi.com/journal/buildings/special_issues /23N7SKE7AN

Guest Editors

Prof. Dr. Xiaoyong Wang

Department of Architectural Engineering, Kangwon National University, Chuncheon-si 24341, Republic of Korea

Dr. Meiyu Xuan

Department of Architectural Engineering/Chuncheon-si, Kangwon National Universi-ty, Chuncheon-si 24341, Republic of Korea

Deadline for manuscript submissions

closed (31 October 2025)



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/200372

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).