Special Issue

New Technologies in Concrete Structures

Message from the Guest Editors

Upgraded design standards and increased safety requirements, in addition to the deterioration of infrastructures coupled with the damage caused by natural disasters, necessitate the need for developing new technologies that can be used in concrete structures. Today, designing civil engineering structures requires more than just satisfying the requirements for functionality and load-carrying capacity. There is a crucial need for designing structural systems that possess a high strength to weight ratio and have a high adaptability to changes in temperature and loading conditions.

For this Special Issue, authors are kindly invited to submit high-quality original research articles, reviews, and case studies on topics including, but not limited to: advances in reinforced concrete structures; smart materials; new strengthening systems, nano building materials; off-site construction; self-healing concrete; 3D printing; geopolymer concrete; fiber-reinforced concrete; high-performance concrete; soil-cement materials; special foundation technologies; and ecofriendly cement-based materials.

Guest Editors

Prof. Dr. Mohammad Jamal Mahmoud M Al-Shannag

Dr. Ali Saeed Abdulrahman Alqarni

Dr. Abdullah Abdulrahman Almajed

Deadline for manuscript submissions

closed (30 April 2024)



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/170209

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).