Special Issue

Advanced Studies in Structural Performance, Durability, and Constractional Improvements of Reinforced Concrete Structures

Message from the Guest Editors

Reinforced concrete (RC) remains one of the most widely used construction materials worldwide due to its versatility, strength, and cost-effectiveness. However, growing concerns related to aging infrastructure, environmental degradation, and increasing seismic and climate-related demands necessitate advanced research regarding improvements in the performance and durability of RC structures. This Special Issue aims to highlight recent innovations in the analysis, design, materials, and retrofitting techniques that enhance both the structural integrity and long-term sustainability of RC systems. Key areas of interest include advanced modeling and experimental studies on structural performance under extreme loads, the integration of smart and sustainable materials, novel construction methods, and the development of performance-based design strategies. In addition, we welcome the submission of articles that focus on the application of fiber-reinforced concrete (FRC), high-performance concrete (HPC), corrosion-resistant systems, alkaliactivated HPC and UHPC, and life-cycle assessment (LCA). More details:

https://www.mdpi.com/journal/buildings/special_issues/53KOX993T5

Guest Editors

Dr. Neda Asgarkhani

Department of Building Engineering, Faculty of Civil and Environmental Engineering, Gdansk University of Technology, 80-233 Gdansk, Poland

Dr. Farzin Kazemi

Department of Building Engineering, Faculty of Civil and Environmental Engineering, Gdansk University of Technology, 80-233 Gdansk, Poland

Deadline for manuscript submissions

30 July 2026



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/247666

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).