

# Special Issue

## Advanced Technology in Low-Carbon, Durability and High-Performance Concrete

### Message from the Guest Editor

The demand for innovative, eco-friendly, and high-performance construction materials continues to rise in response to global challenges related to the environment and durability. This Special Issue aims to highlight recent advancements in low-carbon, durable, and high-performance concrete technologies. It focuses on the development and characterization of sustainable materials, including geopolymer binders, supplementary cementitious materials, nano-enhanced composites, and the reuse of industrial by-products such as fly ash, slag, and waste glass. We welcome the submission of articles that present experimental and numerical investigations, assess applications in the field and long-term durability, perform life cycle assessments (LCAs), and address the integration of machine learning and optimization techniques in material design. We particularly welcome contributions that address durability in aggressive environments, corrosion resistance, and advanced modeling for structural performance. This Special Issue will serve as a platform for the presentation of practical solutions that support the transition to low-carbon and resilient construction systems.

### Guest Editor

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### Deadline for manuscript submissions

28 February 2026



## Buildings

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## 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.

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### Editor-in-Chief

Prof. Dr. David Arditi

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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).