# Special Issue

# Advanced Composite Materials for Sustainable Construction

## Message from the Guest Editors

The construction industry faces urgent challenges in reducing its environmental footprint while maintaining structural performance and durability; consequently, this Special Issue, “Advanced Composite Materials for Sustainable Construction”, seeks to explore innovative cement-based composites incorporating waste-derived and recycled materials to promote sustainable development. Contributions highlight cutting-edge research on the use of industrial byproducts (e.g., fly ash, slag, and recycled aggregates) and novel additives to enhance mechanical properties, durability, and eco-efficiency. Topics include microstructure optimization, low-carbon binders, life-cycle assessment, and scalable applications in modern construction. By bridging material science and civil engineering, this Special Issue aims to advance the understanding of sustainable composites, offering practical solutions for resource conservation and circular economy principles. Researchers and practitioners are invited to submit original studies and reviews that address these critical challenges, fostering the transition toward the deployment of greener high-performance construction materials.

## Guest Editors


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## Deadline for manuscript submissions

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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.

### Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.1 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).