# Special Issue

# Building Tomorrow: Revolutionary Materials for Sustainable Construction

## Message from the Guest Editors

The key themes of this Special Issue include (but are not limited to) the following:

- Natural and sustainable building materials;
- Waste-incorporating building materials;
- Innovative, adaptive building skins;
- The hygrothermal and acoustic performance of innovative materials/systems;
- Sustainable materials for rehabilitation, retrofitting, and refurbishment;
- Bio and healthy building research;
- Energy use and climate;
- Sustainable urban development;
- The energy efficiency of hybrid cold-formed steel sections;
- Sustainability and the life-cycle assessment of buildings;
- The energy efficiency of houses made of steel;
- Lightweight housing using steel and composite structures;
- Innovative construction systems using lightweight materials for sustainability;
- 3D printing and integrating 3D printing technology in construction;
- Concrete/steel as a recyclable material;
- Detailed requirements for alternative technology;
- Whole-of-life embodied carbon;
- Operational energy;
- Other topics related to the performance of innovative building materials, related technologies, and systems for a sustainable built environment.

## Guest Editors

Dr. Krishanu Roy
Dr. G. Beulah Gnana Ananthi
Dr. Zhiyuan Arthur Fang

## Deadline for manuscript submissions

closed (31 March 2025)

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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

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 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).