

# Special Issue

## New Technologies in Reducing Building Energy Consumption

### Message from the Guest Editors

According to data from the International Energy Agency, the global primary energy consumption continues to rise, reaching  $5 \times 10^8$  TJ. However, in this context, there are still many scientific challenges about building energy consumption, such as renewable energy utilization, energy optimization design, etc. Therefore, how to reduce building energy consumption has become a major focus for the sustainable development of society. This Special Issue aims to collect research articles and critical reviews about scientific and technical information on recent advances in building energy consumption for sustainable development. The primary areas of interest of this Special Issue include, but are not limited to, (1) low/zero-carbon emission building; (2) renewable energy equipment applied to buildings; (3) design optimization methods of building energy systems; (4) design optimization of building envelope structures; (5) energy storage technologies; and (6) load demand responses in buildings. We look forward to receiving your contributions.

### Guest Editors

Dr. Di Wu

Dr. Xinyan Yang

Dr. Shicong Zhang

### Deadline for manuscript submissions

closed (20 April 2025)



## 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).