

Special Issue

The State-of-the-Art Technologies for Zero-Energy Buildings

Message from the Guest Editors

Transformation of the building sector is one of the most important challenges of today's economy. Increasing the energy efficiency of buildings is an essential step for the future of our planet. This applies to both new and existing buildings. In the area of newly designed buildings, many countries have near-zero energy building standards, while many other countries are just developing such standards. A huge challenge is the thermal modernization of existing buildings, taking into account historic buildings, for which there are often no requirements for improving energy efficiency. Energy transformation of the building sector must be based on scientific analysis and experience. Only by optimizing energy, cost, and environmental impact and with optimal multi-faceted comfort can a new model for the design and construction of new-generation buildings be created. It is also important to work on new, innovative technologies, without which the ambitious goals will not be achieved. We invite everyone to publish their research work in our Special Issue. Your work will help in the inevitable transformation of the construction sector.

Guest Editors

Dr. Małgorzata Fedorczak-Cisak

Malopolska Energy Efficiency Laboratory, Cracow University of Technology, 24 Warszawska Street, 31-155 Cracow, Poland

Dr. Beata Sadowska

Department of Sustainable Construction and Building Systems, Faculty of Civil Engineering and Environmental Sciences, Bialystok University of Technology, Wiejska Street 45E, 15-351 Bialystok, Poland

Deadline for manuscript submissions

closed (20 August 2025)



Buildings

an Open Access Journal
by MDPI

Impact Factor 3.1
CiteScore 4.4



mdpi.com/si/182968

Buildings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
buildings@mdpi.com

[mdpi.com/journal/
buildings](https://mdpi.com/journal/buildings)





Buildings

an Open Access Journal
by MDPI

Impact Factor 3.1
CiteScore 4.4



[mdpi.com/journal/
buildings](https://mdpi.com/journal/buildings)



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 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).