Special Issue

Advances in the Sustainability and Energy Efficiency of Buildings

Message from the Guest Editors

This Special Issue focuses on the significant role buildings play in global energy consumption and climate change due to their use of energy and greenhouse gas emissions. Key areas of exploration include:

Design Phase: This phase centers on understanding climate factors essential for sustainable buildings, placing particular emphasis on the accurate assignment of climatic zones. Renewable energy integration becomes a focal point, ensuring buildings harness sustainable energy sources effectively.

Construction Phase: This phase underscores the importance of sustainability and energy efficiency in modern construction practices. It emphasizes the integration of eco-friendly materials, aligning with circular economy principles.

Usage Phase: The sustainable operation and maintenance of buildings during the usage phase are pivotal not only for guaranteeing long-term energy efficiency but also for achieving significant energy savings.

Holistic Approach: This approach represents a comprehensive strategy in building design and construction, emphasizing energy efficiency, sustainability, and addressing the challenges posed by climate change.

Guest Editors

Prof. Dr. Carlos Roldán-Blay

Institute for Energy Engineering, Universitat Politècnica de València, Camino de Vera, s/n, Building 8E, 46022 Valencia, Spain

Prof. Dr. Eduardo Quiles

Instituto de Automática e Informática Industrial, Universitat Politècnica de València, 46022 Valencia, Spain

Deadline for manuscript submissions

20 August 2025



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/188891

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

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multidimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

