Special Issue

Innovative Retrofit Solutions to Improve Energy Efficiency and Indoor Environmental Quality in Buildings

Message from the Guest Editors

The building sector accounts for a significant share of global energy consumption. Retrofitting technologies present a valuable opportunity for existing buildings to achieve energy savings and enhance indoor thermal comfort. This Special Issue highlights innovative retrofit technologies for existing commercial and residential buildings. The primary objectives are to reduce energy consumption and improve indoor environmental quality, particularly for buildings that are not operating as intended or were constructed several decades ago. Achieving these goals requires collaboration across multiple disciplines. We encourage contributions from professionals and researchers in fields such as computer science, mechanical engineering, civil engineering, building science, and architecture. Such interdisciplinary collaboration is essential for developing transformative solutions and maximizing the potential of retrofit technologies.

Guest Editors

Dr. Sungkyun Jung

Dr. Yeobeom Yoon

Dr. Piljae Im

Deadline for manuscript submissions

31 October 2025



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/231283

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

mdpi.com/journal/buildings





an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4





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 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).