Special Issue

Digitalization for Smart Building Environments

Message from the Guest Editors

This Special Issue, titled "Digitalization for Smart Building Environments," will delve into the cutting-edge technologies, methodologies, approaches, and skills used to build a smart and sustainable built environment. We invite research and review articles that focus on digitalization and artificial intelligence (AI)-driven technologies for smart buildings and sustainable environments, including indoor and outdoor environment sensing, control, and analysis and the impact on human well-being and energy. It will foster interdisciplinary collaboration among researchers, practitioners, and policymakers by highlighting the environmental and societal implications of integrating digital and smart technologies into buildings and environments. Specific research topics include, but are not limited to, the following:

Environment monitoring; Environment modeling; Environment control; Building digitalization and digital twins; Case Studies; Building Energy Efficiency; Building human well-being.

Guest Editors

Dr. Kailai Sun

 Singapore-MIT Alliance for Research and Technology (SMART), Massachusetts Institute of Technology, Singapore 138602, Singapore
Urban Mobility Lab, Massachusetts Institute of Technology, Cambridge, MA 02139, USA

Dr. Haneul Choi

Energy ICT Research Department, Korea Institute of Energy Research, 152, Gajeong-ro, Yuseong-gu, Daejeon 34141, Republic of Korea

Deadline for manuscript submissions

31 March 2026



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/248364

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).