Special Issue

Applying Artificial Intelligence in Construction Management—2nd Edition

Message from the Guest Editors

AI is reshaping the construction industry through the integration of machine learning, computer vision, robotics, and large-scale data analytics. Construction management, which encompasses project planning, scheduling, cost estimation, risk assessment, safety, and quality control, stands to benefit substantially from these advances, given its reliance on coordinating complex and heterogeneous information under significant constraints.

Recent research has demonstrated the potential of AI to improve cost and schedule forecasting, automate progress and safety monitoring, support defect and hazard detection, and enhance the analysis of unstructured project documents through natural language processing and large language models. Coupled with digital twins, generative design, and robotics, these technologies offer opportunities to improve productivity, safety, and sustainability across the project lifecycle. Nevertheless, their adoption remains constrained by the limited availability of high-quality and interoperable datasets, workforce skill gaps, concerns regarding the transparency and reliability of AI-driven decisions, and emerging cybersecurity and data privacy risks.

Guest Editors

Dr. Phuong Hoang Dat Nguyen
Dr. Minsoo Baek
Dr. Md Nazmus Sakib

Deadline for manuscript submissions

28 February 2027

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 5.6

mdpi.com/si/281246

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

mdpi.com/journal/buildings

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 5.6

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).