Special Issue

Assessment and Optimization of Building Carbon Emissions and Energy Efficiency in China

Message from the Guest Editors

In recent years, building carbon emissions have become a new growth area because of the accelerated urbanization and the resulting residential demand for energy consumption. This poses a threat to society, the economy, and the environment. Achieving carbon peaks, carbon neutrality, and sustainable development require a system transformation of the building and construction industry. Assessing building carbon emissions and energy efficiency performance would be helpful to the green transformation of the building and construction industry. Path optimization is critical for mitigating the carbon emissions of these industries. Therefore, this Special Issue will provide a platform for researchers to show and exchange ideas related to **building related energy consumption and carbon emissions**. The topics include, but are not limited to:

- building carbon emission prediction
- carbon peak and carbon neutrality
- building energy system modeling and optimization
- building retrofits
- sustainable construction and management
- energy policy evaluation
- energy efficiency of the building and construction industry

Guest Editors

Dr. Tengfei Huo

School of Economics and Management, Hebei University of Technology, Tianjin 300401, China

Prof. Dr. Weiguang Cai

School of Management Science and Real Estate, Chongqing University, Chongqing 400045, China

Deadline for manuscript submissions

closed (30 June 2023)

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 4.4

mdpi.com/si/118450

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 4.4

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 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).