Special Issue

Building Foundation Analysis: Soil-Structure Interaction—2nd Edition

Message from the Guest Editors

This Special Issue aims to provide readers with insights into the latest research findings, engineering practices, and technological innovations in the field of soil–structure interaction. The topics of interest include, but are not limited to, the following:

- Fundamental principles and theories of soil mechanics.
- Design and analysis methods for building foundations.
- Models and numerical simulations of soil-structure interactions.
- Influence of different soil types on building behaviour.
- Analysis of soil bearing capacity, settlement, and deformation.
- Dynamic response and seismic engineering of soilstructure systems.
- Design, analysis, and construction techniques for pile foundations.
- Application of soil improvement techniques in soilstructure interactions.
- Effects of soil lateral forces on buildings and mitigation methods.
- Research on soil-structure interactions in underground structures.
- Application of machine learning in building foundations.
- Application of geophysical methods in building foundations.

For more information, please click on the following link: https://www.mdpi.com/journal/buildings/special_issues /6BKHPGF8I 4

Guest Editors

Prof. Dr. Qiang Xie

Dr. Yuxin Ban

Dr. Xiang Fu

Dr. Rini Asnida Binti Abdullah

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/228122

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).