Special Issue

Geomechanics and Geotechnical Engineering Problems in the Design and Construction of Underground Buildings

Message from the Guest Editors

The fact that underground engineering is located or partially located below the surface determines that the geotechnical problems of underground engineering will run through the whole life cycle of underground engineering, including site selection, planning, investigation, design, construction, use, maintenance, transformation, reinforcement, demolition and restoration. At present, the construction schemes of underground engineering are classified into open excavation method, shallow buried excavation method, cover excavation method, drilling and blasting method, road header method, shield method, pipe jacking method, buried pipe section method, caisson method, trenchless technology scheme and so on. For underground engineering, geomechanics and geotechnical problems have the whole process, extensive and particularity. The Special Issue titled "Geomechanics and Geotechnical Engineering Problems in the Design and Construction of Underground Buildings" will accept manuscripts covering a wide range of topics, from basic research to more applied exploration and comprehensive case studies.

Guest Editors

Dr. Shaobo Chai

Dr. Yongqiang Zhou

Dr. Erdi Abi

Dr. Longlong Lv

Deadline for manuscript submissions

closed (20 July 2024)



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/167101

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).