Special Issue

Experiments, Design and Practice Innovations in Geotechnical Engineering and Underground Space

Message from the Guest Editors

With the rapid development of the global economy and of industry, the acceleration of urbanization, and the deepening of underground space utilization for exploration, design, construction, and operation, more and more requirements have been put forward for the safety and reliability of geotechnical engineering and underground spaces. The Special Issue focusing on the theory and practice of and management innovations in geotechnical and underground engineering. Topics include, but are not limited to:

- The engineering behaviour of soil, rock, and underground structures;
- Rock and soil dynamics;
- The application of artificial intelligence in geotechnical engineering and underground spaces;
- Environmental geotechnics;
- Novel numerical analysis in solving major underground engineering;
- Earthquake engineering in underground spaces;
- Original theories, methods, techniques, and important applications in the whole life cycle of underground engineering;
- Predictive maintenance using AI for infrastructure;
- Advanced numerical analysis methods for internal erosion-induced geodisasters.

Guest Editors

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Deadline for manuscript submissions

closed (31 July 2025)

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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

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Author Benefits

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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).