Special Issue

Construction in Urban Underground Space

Message from the Guest Editors

The exploration of underground space offers a myriad of opportunities, from alleviating surface congestion to providing innovative solutions for housing, transportation and utilities. In the past, construction in urban underground space was often limited to essential infrastructure such as tunnels and utility networks. However, contemporary perspectives are expanding to encompass a broader spectrum of possibilities, including underground commercial spaces, recreational facilities and even subterranean residential areas. This shift requires a reevaluation of construction methodologies, safety protocols and sustainable practices specific to the challenges posed by underground environments. We welcome research papers, case studies and innovative projects that address key themes, and topics of interest include, but are not limited to:

- Development of specialized construction techniques;
- Structural design considerations;
- Environmental impact assessments;
- Advancements in underground construction materials;
- Impact on urban planning and architecture;
- Underground space and underground construction.

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Deadline for manuscript submissions

closed (31 October 2024)

Buildings

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 4.4

mdpi.com/si/192918

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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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