

Resilience of Urban Underground Space: Planning, Design, Assessment and Enhancement

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Message from the Guest Editors

The development and utilization of urban underground space is an important way to develop underground infrastructure and improve urban space capacity and quality, which is also an inevitable requirement for the safety and sustainable development of cities. However, the construction and operation of urban underground space structures are affected and threatened by multiple factors, such as natural disasters and production and construction activities, which generate great risks to urban safety and economic development. Breakthroughs are urgently needed in the theoretical mechanism of structural disaster chain evolution and resilience evaluation system, the integrated resilience design method of material structure system, rapid repair construction equipment and resilience enhancement technology.

This Special Issue focuses on the latest developments in the planning, design, assessment and enhancement of the resilience of urban underground space. New insights into the scientific knowledge or engineering practice in intelligent perception technology and deep learning technology to improve resilience are also welcomed. We invite you to contribute and submit your latest research work.



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Special Issue

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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.

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