Special Issue

Geoinfrastructure: A Comprehensive Review of Current Trends, Challenges and Future Perspectives

Message from the Guest Editors

Geoinfrastructure has been widely constructed and operated from ancient history to the modern day, including caves, channels, roads, highways, railways, airports, etc., manually or mechanically fabricated by raw earth or treated soils. For the multi-minerals and clay minerals within geomaterials, the derived geoinfrastructure services under the multi-field environments (thermo-hydro-chemo-bio-mechanical) are especially affected by global climate change. The performance response, including the interaction between the soil and structure, i.e., the enhancement and deterioration, is complex, but it is very important to improve infrastructure resilience and the full life-cycle's efficiency. For further reading, please follow the link to the Special Issue Website at:https://www.mdpi.com/journal/buildings/special_issues/042TDP7TCZ

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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.

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