

Seismic Response Analysis of Underground Structure

Guest Editors:

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submissions:**31 July 2024**

Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to encourage and enhance the role of mechanics, dynamics, analytical methods and other disciplines in relation to earthquake engineering.

- Seismology and geology relevant to earthquake engineering problems.
- Wave propagation, wave scattering and dynamic crack propagation in soils and rocks under elastic or inelastic material behavior.
- Dynamic constitutive behavior of materials.
- Dynamic interaction problems.
- Seismic analysis and design of steel structure and tunnels, metro station, retaining walls, dams, slopes.
- Instrumentation and experimental methods in earthquake engineering.
- Applied mathematical methods and artificial intelligence for earthquake engineering analysis and design.
- Performance-based seismic design of structures.
- Seismic reinforcement of civil engineering structures
- Probabilistic methods in earthquake engineering including risk analysis and reliability earthquake case.
- Earthquake case histories and lessons learned from catastrophic ground motions only if they include modeling and geotechnical/structural analysis.
- Design and construction of anti-seismic measures in underground structures.

mdpi.com/si/177183**Special Issue**



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Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (*Architecture*)

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. Innovation and technology can bring dramatic improvements to design, planning, and policy use, critical in developing the cities and buildings of the future.

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