

Special Issue

Sustainable Research on Rock Mechanics and Geotechnical Engineering

Message from the Guest Editors

This Special Issue will provide a platform for researchers to discuss cutting-edge technologies, methodologies, and case studies related to sustainable rock mechanics and geotechnical engineering. We encourage contributions that advance theoretical models, experimental studies, numerical simulations, and engineering applications in these fields. Topics include but are not limited to the following:

- Sustainable excavation and tunneling technologies;
- Geotechnical challenges in underground energy storage (hydrogen, CO₂, CAES);
- Creep and fatigue behavior of geomaterials under complex stress conditions;
- Rockburst prediction, mitigation, and control strategies;
- Numerical modeling and AI-based approaches in rock mechanics;
- Acoustic emission and microseismic monitoring for rock stability assessment;
- Deep mining rock mechanics and sustainable support systems;
- The role of geotechnical engineering in carbon capture and storage (CCS);
- Resource utilization and sustainable management of underground reservoirs;
- Innovations in laboratory and field testing of rock and soil behavior.

Guest Editors

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Deadline for manuscript submissions



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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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