Special Issue

Future Trends of Sustainable Rock Engineering

Message from the Guest Editors

In the field of sustainable rock engineering, several significant challenges arise, such as low-carbon exploitation, storage and utilization of geothermal renewable energy like shale gas and hot dry rock, as well as the design and construction of underground projects. Creating a large-scale interconnected complex network of fractures is essential for geothermal extraction from hot dry rock. Creating fractures poses significant challenges as the extraction of geothermal energy involves the coupling of multiple fields, multiple phases, and multiple processes. Therefore, this Special Issue focuses on understanding the coupling heat transfer mechanism and mechanical behaviors of rocks under multiple fields. It investigates how to reduce the initiation pressure, enhance the scale and complexity of the fracture network, and effectively mitigate the risk of induced seismicity. In addition, it explores rock improvement technology, sealing technology in geothermal energy storage, and computational geomechanics involved in multiple fields. In this Special Issue, original research articles and reviews are welcome.

Guest Editors

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Deadline for manuscript submissions

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I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

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