

Special Issue

Progress and Challenges of Rock Engineering

Message from the Guest Editors

Rock engineering plays a fundamental role in addressing critical challenges related to infrastructure and resource development, not only on Earth but also in future space exploration. Driven by rapid urbanization, an increasing demand for energy, the need for sustainable development on Earth, and enhanced interest in space exploration, the field of rock engineering continues to evolve with new technologies and methodologies. However, researchers are currently aiming to bridge the gap between laboratory research and practical applications in complex real-world conditions, including extraterrestrial environments. Examples include deep underground construction projects, large-scale mining operations, nuclear waste disposal facilities, the development of critical infrastructure in challenging geological conditions, and notably, the investigation of rock mechanics for lunar and Martian habitats.

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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.

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