



Machine Learning and Remote/Proximal Sensing for Rock Mass Characterization and Slope Analyses

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Message from the Guest Editors

Geomechanical studies are crucial for understanding the behavior of rock masses in various engineering applications. The advent of machine learning (ML) and the recent innovation of proximal and remote sensing (RS) techniques have remarkably changed our approach to enhance the characterization of rock masses. This Special Issue aims to explore the use of ML and RS and their potential synergy in advancing geomechanical analyses for improved infrastructure design and hazard mitigation. Research papers that explore machine learning techniques for integrating hydrological and mechanical data to better understand the coupled behavior of water flow and mechanical responses in rock masses are welcomed.

This Special Issue aims to foster interdisciplinary collaboration and innovation by bringing together researchers, engineers, and practitioners from the fields of geomechanics, remote sensing, and machine learning. By leveraging the complementary strengths of ML and RS, we can unlock new insights into rock mass behavior and improve the resilience and sustainability of civil engineering projects.





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