Special Issue

Intelligent Empowerment of Geotechnical Engineering: Big Data, AI and Optimization

Message from the Guest Editors

This Special Issue focuses on the application of big data analysis technology for processing large-scale geotechnical engineering datasets, establishing intelligent monitoring and early warning systems to facilitate real-time safety management and control in engineering projects. It also investigates the utilization of artificial intelligence, deep learning, and intelligent optimization algorithms in geotechnical parameter inversion, disaster prediction, and engineering design. Additionally, this Special Issue explores the innovative application of intelligent reconnaissance and remote sensing technologies. In particular, the topics of interest include, but are not limited to, the following aspects:

- Big data analysis and mining technology of geotechnical engineering;
- Research on intelligent monitoring systems and real-time early warning methods;
- Application of artificial intelligence and machine learning in geotechnical engineering;
- Application of intelligent optimization algorithms in geotechnical engineering design;
- Intelligent reconnaissance technology and new methods of remote sensing monitoring;
- Multi-source data fusion and 3D geological modeling technology.

Guest Editors

Dr. Jiangbo Xu

Dr. Yi Shan

Prof. Dr. Yu Cong

Dr. Shuaifeng Wang

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Geosciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
geosciences@mdpi.com

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Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherentset of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientificallybased political decisions.
We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

Prof. Dr. John C. Eichelberger
Alaska Center for Energy and Power, University of Alaska Fairbanks, Fairbanks, AK, USA

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