applied sciences

IMPACT FACTOR 2.5

CITESCORE 5.3

an Open Access Journal by MDPI

Geotechnical Structure Analysis and Risk Assessment in Tunnel Engineering

Guest Editor:

Prof. Dr. Jianxiu Wang
College of Civil Engineering, Tongji University, Shanghai 200092, China

Deadline for manuscript submissions:
20 November 2024

Message from the Guest Editor

The main load on the geotechnical structures and construction risk are all based on the interaction between the surrounding rock mass and underground structures. The complex geological materials, geological structures, complex excavation steps and thermal–hydraulic–mechanical–chemical (THMC) coupling environment make the tunneling even more challenging.

Recent advances in deep, large-span, bifurcated, multi-arch tunnels under extremely unfavorable conditions in the rock mass, together with the shield tunnel, immersed tunnel and suspension tunnel in soil, produce lots of history knowledge and experiences. Meanwhile, the progress in numerical and physical analysis and emerging technology represented by artificial intelligence (AI) present us strong theoretical tools to solve the challenges.

All of the above new knowledge is encouraged to be shared and published in our Special Issue in the overlapping fields of:

- Tunneling case history analysis.
- Multi-scale tunnel geological structure analysis.
- Tunnel environment analysis.
- Tunnel structure-surrounding rock interaction.
- Tunnel geotechnical risk mitigation.
- New emerging technology applications.

applied sciences

IMPACT FACTOR 2.5

CITESCORE 5.3

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
𝕏@Applsci