

## Special Issue

# Tunnel Construction and Underground Engineering

### Message from the Guest Editors

Recent years have seen significant advancements in tunnel construction and underground engineering, driven by technological innovations such as tunnel-boring machines (TBMs), advanced ground support systems, real-time monitoring techniques, and digital twin modeling. These developments have substantially improved safety, efficiency, and environmental sustainability in tunnel and underground projects. Notable progress in this field includes the establishment of smart sensing technologies for structural health monitoring, innovative excavation methods, and advanced geotechnical risk assessment techniques. Research in this field is expected to further integrate automation, robotics, artificial intelligence, and sustainable practices into tunnel construction and engineering. Future research areas include the development of autonomous tunneling systems, application of artificial intelligence in predictive maintenance, enhanced resilience against geotechnical hazards, and sustainable utilization of underground spaces. We welcome original research papers, comprehensive reviews, and case studies addressing these issues.

---

### Guest Editors

Dr. Yuantian Sun  
School of Mines, CUMT, Xuzhou 221116, China  
Dr. Haoyu Rong  
School of Mines, CUMT, Xuzhou 221116, China

---

### Deadline for manuscript submissions

31 July 2026



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/249948](https://mdpi.com/si/249948)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[applsci@mdpi.com](mailto:applsci@mdpi.com)

[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### 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.

---

### Editor-in-Chief

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

---

### 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), Ei Compendex, Inspec, Embase, CAPIus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )