

Special Issue

Innovations and Applications in Tunnel Construction and Maintenance

Message from the Guest Editor

Potential Topics:

- **Intelligent Tunnel Boring Machines (TBMs) and Data-Driven Optimization:**
Research on the use of machine learning, big data analytics, and reinforcement learning to enhance TBM operations and improve tunnel construction efficiency.
- **Structural Monitoring and Maintenance Using AI:**
Studies focusing on the application of artificial intelligence, data mining, and automated systems for tunnel serviceability evaluation and predictive maintenance.
- **Seismic Resilience and Advanced Simulation Techniques:**
Contributions related to the use of numerical simulations, finite element analysis, and seismic response modeling to improve the resilience and safety of tunnels, particularly in challenging environments.

Guest Editor

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Deadline for manuscript submissions

closed (30 July 2025)



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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

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