Special Issue

Present Status, Technology and Materials in Tunnelling and Underground Engineering

Message from the Guest Editors

This Special Issue aims to define the state of the art regarding the new wave of modern technologies and methods for tunnel construction. The role of underground infrastructures is significant in the sustainable and resilient development of urban areas, but this sudden expansion has created more challenging operating conditions. In this context, the rapid growth of new technologies has facilitated the construction and operation of tunnels. Furthermore, new technologies are also expected to play a crucial role in organising more efficient maintenance campaigns to reduce traffic disruptions. We welcome papers on topics including, but not limited to:

- Innovations in mechanised and conventional tunnel excavations;
- New technologies and materials in mechanised tunnelling (soil conditioning and backfilling);
- The application of AI in tunnelling excavation;
- Automation in the construction and operation of underground structures;
- The use of new technologies for reducing excavation risk:
- The use of new technologies for the maintenance of existing tunnels in operation.

Guest Editors

Dr. Daniele Martinelli

Prof. Dr. Pierpaolo Oreste

Dr. Carmine Todaro

Deadline for manuscript submissions

closed (20 January 2024)



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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

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