

## Special Issue

# Applications of Machine Learning in Geotechnical Engineering

### Message from the Guest Editors

This Special Issue aims to explore and showcase innovative applications of machine learning and artificial intelligence in the field of geotechnical engineering. As the complexity of geotechnical challenges continues to grow, advanced computational methods offer new avenues for addressing these issues more effectively and sustainably. This Special Issue will publish, but is not limited to, high-quality original research papers on topics including machine learning and artificial intelligence applied to the following areas:

- Slope stability analysis and landslide prediction.
- Shallow and deep foundations analysis and design.
- Embankments behaviour and design.
- Site characterization.
- Underground engineering and tunnelling.
- Rocks and soils behaviour modelling and characterization.
- Site investigation.
- Ground improvement techniques.
- Forecasting of geotechnical disasters.
- Geohazard assessment and risk mitigation.
- Sustainable geotechnical solutions.
- Prediction of ground movements.
- Groundwater flow.
- Retaining walls analysis and design.
- Characterization and behaviour of problematic soils (expansive, collapsible, organic, non-engineered fills, etc.).

### Guest Editors

Dr. Esteban Díaz

Dr. Tiago Filipe da Silva Miranda

Prof. Dr. Cheng-Yu Ku

### Deadline for manuscript submissions

28 February 2026



## Applied Sciences

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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.

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### Editor-in-Chief

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