

Special Issue

Intelligent Drilling Technology: Modeling and Application

Message from the Guest Editor

This Special Issue invites cutting-edge research at the intersection of drilling engineering, hybrid modeling, and advanced AI techniques, aiming to showcase how these technologies are transforming the future of subsurface operations. Machine learning has emerged as a powerful tool with the potential to address complex challenges in drilling technology. From real-time data analytics, performance monitoring, anomaly detection, and predictive maintenance to automation and decision support systems, the integration of machine learning algorithms promises to unlock new horizons in drilling technology. We invite researchers, engineers, and experts in the field of drilling technology to contribute innovative research, case studies, and reviews that shed light on the modeling and application in various aspects of drilling. By disseminating cutting-edge research in this Special Issue, we aim to foster collaboration, share best practices, and advance the adoption of the intelligent drilling industry. Submissions are now open, and we look forward to receiving your contributions.

- machine learning
- drilling technology
- automation
- real-time monitoring
- decision support
- efficiency
- safety

Guest Editor

Prof. Dr. Dan Sui

Faculty of Science and Technology, Department of Energy and Petroleum Engineering, University of Stavanger, 4021 Stavanger, Norway

Deadline for manuscript submissions

20 February 2026



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/245529

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
appls@mdpi.com

mdpi.com/journal/

appls





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, CAPlus / SciFinder, and other databases.

Journal Rank:

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