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Development and Application of Intelligent Drilling Technology

Guest Editors:

Dr. Jingbin Li

State Key Laboratory of Petroleum Resources and Prospecting, China University of Petroleum-Beijing, Beijing 102249, China

Dr. Mengmeng Zhou

College of Carbon Neutral Energy, China University of Petroleum-Beijing, Beijing 102249, China

Deadline for manuscript submissions: **30 September 2024**



Message from the Guest Editors

With the rapid development of artificial intelligence, the application of machine learning in oil and gas drilling engineering is increasing day by day. Through the application of automated surface drilling rigs, intelligent downhole executive agency, intelligent monitoring, and decision-making technology, drilling operations can achieve advanced detection, closed-loop control, precision guidance, and intelligent decision-making.

This Special Issue will delve into the latest research, application cases, and future trends in machine learning technology in the field of drilling. We will invite professional researchers, engineers, and industry leaders from around the world to share their unique insights and experiences in the field.

Keywords:

- intelligent well trajectory optimization
- intelligent controlled pressure drilling
- intelligent optimization of the drilling rate
- intelligent monitoring and decision-making

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- intelligent guided drilling
- downhole closed-loop control
- intelligent drilling pipe
- intelligent drilling fluid
- machine learning
- drilling technology
- intelligent rig
- intelligent bit

mdpi.com/si/185867





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Editor-in-Chief

Message from the Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy 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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Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/applsci applsci@mdpi.com X@Applsci