

Special Issue

Sensors and Sensing Techniques in Petroleum Engineering

Message from the Guest Editors

Fiber optic sensing technology has played an important role in oil and gas development by assessing formation rocks, field development, well completion, production, and stimulation. This technology has also been successfully applied in geothermal energy exploration and development. This Special Issue collects research on recent advances in field applications and lessons learned from broad aspects of sensing technology applications in the energy industry. Topics of interest include distributed acoustic sensors for microseismic mapping of rock geomechanical evaluation, subsurface flow characterization, well performance evaluation with distributed temperature and acoustic sensors, and fracture diagnosis with low-frequency distributed acoustic sensors, as well as distributed temperature sensors for thermal energy development efficiency in geothermal fields.

Guest Editors

Dr. Rita Esuru Okoroafor

Harold Vance Department of Petroleum Engineering, Texas A&M University, College Station, TX, USA

Prof. Dr. Ding Zhu

Harold Vance Department of Petroleum Engineering, Texas A&M University, College Station, TX, USA

Deadline for manuscript submissions

25 December 2025



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/240029

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

[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)





Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)



About the Journal

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, 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), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)