



*sensors*



an Open Access Journal by MDPI

## Wireless Underground Sensor Networks

Guest Editor:

**Prof. Dr. Anna Förster**

Sustainable Communication  
Networks, Faculty of Physics and  
Electrical Engineering University  
of Bremen, NW1, Otto-Hahn-Allee  
1, 28359 Bremen, Germany

Deadline for manuscript  
submissions:

**closed (10 August 2022)**

### Message from the Guest Editor

Dear Colleagues,

Wireless underground sensor networks (WUSN) have become very popular recently for various applications, such as agricultural monitoring and structural monitoring of underground infrastructures. This development is partially due to the rise of LoRa communication technology, which performs well enough in underground environments due to its low frequency spectrum. However, WUSN can also be implemented only partially underground, with forwarders and data mules being installed overground.

This Special Issue aims to present the latest research in this area, covering novel applications, novel communication architectures and protocols, data management techniques for WUSNs, sensing and communication hardware platforms for WUSN, and surveys of the above. Applications of machine learning and other optimization algorithms to WUSNs are also highly appreciated.

For more information, please click: [mdpi.com/si/74334](https://mdpi.com/si/74334)



[mdpi.com/si/74334](https://mdpi.com/si/74334)

# Special Issue



*sensors*



an Open Access Journal by MDPI

## 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

## 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.

## 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)

## Contact Us

*Sensors* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sensors](http://mdpi.com/journal/sensors)  
[sensors@mdpi.com](mailto:sensors@mdpi.com)  
[X@Sensors\\_MDPI](#)