



## Measurements Techniques of Biological Tissues Dielectric Properties, Updated Data and Current Applications

Guest Editors:

**Prof. Dr. Marta Cavagnaro**

Department of Information Engineering, Electronics and Telecommunications Sapienza University, Via Eudossiana, 18-00184 Rome, Italy

**Dr. Giuseppe Ruvio**

1. Translational Medical Device Lab, National University of Ireland, Ireland;  
2. GalwayEndowave Ltd, Ireland

Deadline for manuscript submissions:  
**closed (30 June 2020)**

### Message from the Guest Editors

In recent years, there has been a re-emerging interest in the dielectric properties of biological tissues, aimed at the development of advanced applications related both to the medical utilization of electromagnetic fields, such as in hyperthermic treatment modalities and medical imaging, and to on-body and implant-based communications. Designing and developing electromagnetic energy-based medical devices and communication technologies require novel systematic approaches to the investigation of the wideband frequency behavior of tissues' dielectric properties as well as of their dependence on temperature and dehydration. Accordingly, research has been focused on improving the techniques for measuring tissues dielectric properties to discriminate against possible measurement confounders and develop measurements best practices.

The special issue will include, but not limited to, the following topics:

- dielectric measurements
- electromagnetic sensors
- measurement techniques
- biological tissues
- modelling
- medical devices and sensors
- meta-data recording





*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 (*Chemistry, Analytical*) / 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](#)