







an Open Access Journal by MDPI

# Recent Advances in Ultrasound Sensors and Electronics for Medical Imaging Applications

Guest Editor:

#### Dr. Taehoon Kim

Electronic Instrumentation Laboratory, Delft University of Technology, 2628 CD Delft, The Netherlands

Deadline for manuscript submissions:

15 May 2024

## **Message from the Guest Editor**

Recent progresses in developing ultrasound sensors and electronics for medical imaging applications have been outstanding. Developing advanced ultrasound sensors has been an active research topic with ever-challenging and pioneering technical requirements. Concurrently, various electronic solutions. such as application-specific integrated circuits or field-programmable gate arrays, have been developed to deal with advanced imaging technologies and ultrafast imaging processing. The emergence of these revolutionary hardware designs enables medical ultrasound imaging based conventional cart-based scanners to evolve to new form factors. This Special Issue aims to publish original manuscripts and the latest research focusing on design of transducer array and interfacing electronics that enable next-generation ultrasound devices and innovative imaging techniques. We are looking forward to receiving papers including, but not limited to, the following themes.

- Ultrasound transducer modeling, materials, and structures
- Matrix transducer array designs and fabrications
- Design of ultrasound ASICs for specific applications
- Co-integration of transducer array and electronics













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 & Instrumentation*) / CiteScore - Q1

(Instrumentation)

#### **Contact Us**