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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:

closed (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 on 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



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Special Issue



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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

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Sensors Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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