Special Issue

Biomedical Signal Acquisition and Processing Using Sensors

Message from the Guest Editor

The development of new materials in recent decades has resulted in the acquisition of biomedical signals becoming more accessible for researchers. In fact, the new sensors for data recording are miniaturized and wearable and, above all, they are more sensitive and accurate with respect to signal acquisition. In particular, the current technologies have embedded preamplifiers that are able to increase the signal to noise ratio in the recording phase. Nevertheless, a component of noise persists in the recorded biomedical signals, such as line noise or muscular or electrical activity, which is necessary to remove as it could mask biological signals of interest. To reach this aim, several techniques of signal processing have been developed, but the choice of the best procedure of analysis is not trivial and is dependent on i) the type of sensor; ii) the recording protocol; and iii) the pathology to be studied. We are inviting original research work covering novel theories, innovative methods, and meaningful applications that can potentially lead to significant advances in the field of signal processing applied to physiological and pathological data.

Guest Editor

Dr. Francesca Miraglia

Brain Connectivity Laboratory, Department of Neuroscience and Neurorehabilitation, IRCCS San Raffaele Pisana, 00163 Rome, Italy

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

mdpi.com/journal/sensors

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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
Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 Bari, Italy

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