



Electromagnetic Sensors for Biomedical Applications

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Message from the Guest Editors

Dear Colleagues,

Electromagnetic sensors for biomedical applications are receiving increasing attention both in scientific and industrial communities. Substituting existing bulky and expensive instrumentation with smart sensors having a reduced size and lower cost such as micro total analysis systems (μ TAS), lab-on-a-chip, or wearable devices is a challenge from the perspective of telemedicine, point of care analyses, and personalized pharmacological treatment. Topics are including, but are not limited, to:

Modeling, characterization and fabrication of electromagnetic biosensors;

Electrical impedance spectroscopy (EIT);

Electrical impedance tomography (MIT);

Magnetic induction tomography;

μ TAS;

Lab-on-a-chip devices;

Electromagnetic sensors for blood analysis;

Sensors and methods for cells and living tissue electromagnetic
characterization;

Electroencephalography (EEG) and magnetoencephalography (MEG);

Hardware and biosignal processing for electrocardiography (ECG);

Sensors and biosignal processing for stress detection;

Wearable and flexible sensors;

Sensors for well-being in ageing populations (ambient assisted living)

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sensors



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Message from the Editor-in-Chief

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