

Special Issue

Integrated Electronic Circuits and Systems for Unobtrusive Biomedical Sensing

Message from the Guest Editors

Dear colleagues, Advances in CMOS technology, communication, and low power circuit design have spurred the development of wearable biomedical devices and electrically active implants, leading to miniaturized and highly integrated systems for continuous monitoring of physiological parameters. In the health and fitness market, devices monitor the rehabilitation progress, quantify personal body condition, or map activity. In such applications, it is essential that systems are ultra-low-power, miniaturized, and unobtrusive. It is the goal of this Special Issue to report the latest developments of circuits and systems which drive novel sensing concepts and lead to ever more seamless integration of the electronic system with the body. Examples include capacitive non-contact sensing of biopotentials, devices or interface circuits for wearable biomagnetic sensors, and highly integrated neural interfaces. Essential supporting circuits are also within the scope of this SI, e.g., CMOS power harvesting systems demonstrated with a sensing device, edge processing of bioelectric signals, or dedicated low-power input amplifiers.

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About the Journal

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

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