Special Issue

Low-Power Biomedical Sensors and Sensor Systems

Message from the Guest Editor

Biomedical sensors transduce biological signals into electrical signals and enable us to diagnose, track, and treat various medical diseases. The electrical signals of biomedical sensors are detected and processed with specialized readout circuits in sensor systems. In recent years, biomedical sensing has attracted attention for both in vitro and in vivo applications, including samples from single biological cells to human organs. Biosensors lead to continuous data tracking and are significantly effective in precision medicine. Depending on the application, these sensors can be wireless, implantable, wearable, integrated, etc. Power consumption of these devices is especially important, since these devices are —in most cases—battery powered or have heating restrictions that limit power usage. The sensors can operate with or without external power requirement; however, the readout part typically has active power consumption and needs to be optimized to attain minimum power dissipation at maximum accuracy.

Guest Editor

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