Special Issue

Smart Sensing for Dietary Monitoring

Message from the Guest Editors

This Special Issue covers the design, development, and application of dietary monitoring sensors and their associated data processing algorithms and software. Specific topics include, but are not limited to, the following: (1) camera-based sensors that capture images of meals or scan barcodes to track food consumption: (2) wrist-worn motion sensors designed to detect eating-related hand/arm movements and patterns; (3) microphones and piezoelectric-based sensors to monitor chewing sounds or swallowing patterns; (4) noninvasive, minimally invasive, and implantable biosensors measuring physiological parameters (e.g., blood glucose levels) that provide dietary information; (5) smart tables and utensils embedded with sensors that measure food portion sizes and eating pace; and (6) Internet of Things (IoT) technology that connects kitchen appliances, such as refrigerators and cooking stoves/ovens, facilitating the study of food supply and consumption patterns. We encourage submissions that explore the critical design and development of dietary monitoring systems for both scientific dietary study and real-world applications in people's daily lives.

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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.

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