Special Issue

Sensors for Breathing Monitoring—2nd Edition

Message from the Guest Editors

Breathing monitoring is essential in clinical settings to detect apnea, hypopnea, and other respiratory abnormalities. Further, respiratory fluctuation contains valuable information that can be used in clinical practice for diagnosis, emotion recognition, and mental conditioning. The recent advancement of sensor technology in combination with machine learning and information theory-based techniques has enabled us to extract such hidden information from respiratory fluctuation and translate it into usable forms. Various sensors for breathing monitoring have been developed during recent decades that can be classified as 1. airflow-based sensors (e.g., pneumotachograph, thermistor, capnometer, acoustic sensors, etc.), 2. chest wall motion-based sensors (e.g., magnetometer, inductive plethysmography, impedance pneumography, piezoelectric sensors, accelerometer, optical sensors, radio frequency-based methods, etc.), and 3. methods based on respiratory modulation on other physiological signals such as electrocardiograms, arterial pulse wave transit time, photoplethysmograms (PPG), and imaging PPG. We would like to cordially invite you to participate in this Special Issue.

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Message from the Editor-in-Chief

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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