



METROIND4.0&IoT

CALL FOR PAPERS for the Special Session on

WEARABLE SENSORS AND DEVICES FOR UNOBTRUSIVE PHYSIOLOGICAL MONITORING

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ABSTRACT

Wearable sensors and devices are becoming popular in monitoring physiological signals in a range of patients and users. The measurements of these physiological variables can range from monitoring vital signs (i.e., respiratory rate, heart rate, body temperature, blood pressure) and other physiological parameters (e.g., sweat, oxygen concentration level). Monitoring of these signals is not only crucial in the healthcare field but also in industrial areas for day to day screening of an individual, thereby facilitating early detection and diagnosis of life-threatening diseases and stress levels.

The special session aims to discuss novel sensors, devices, and techniques for unobtrusive physiological monitoring. It will also focus on the novel techniques that aim to improve the accuracy and reliability of these measurements targeting particularly for long term monitoring of the physiological signals.

TOPICS

- Sensors and soft sensors
- Wearable sensors and devices
- Metrological characterization of sensors for physiological monitoring
- Metrics, algorithms and signal processing techniques
- Physiological variables, signals, and techniques (e.g., respiratory frequency, glycaemia, blood lactate, electrocardiography, electromyography, photoplethysmography)
- Internet of things for wearables and unobtrusive monitoring systems
- Reliability, validity and accuracy of sensors and measuring systems
- Processing for accurate signal estimation
- Electronics for Biosignals and Biopotentials;
- Electronics interfaces and embedded sensor systems for biomedical application.

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