

## Special Issue

# Advanced Sensors and Signal Processing for Psychophysiological Monitoring

### Message from the Guest Editor

This Special Issue explores the latest advancements in sensor technologies and signal processing methodologies that enhance psychophysiological monitoring. Key areas of focus include the following:

- Innovations in wearable and contactless sensors, including miniaturised and flexible bioelectronic systems, multimodal wearables, and passive sensing technologies.
- Machine learning methods for feature extraction, such as deep learning models for interpreting physiological signals, automated noise reduction techniques, and personalised calibration strategies.
- Multimodal data integration to improve reliability and interpretation, including sensor fusion strategies combining physiological, behavioural, and contextual data.
- Advances in real-time processing and edge computing, enabling fast, low-latency analysis for continuous monitoring applications.
- Novel signal processing techniques, such as adaptive filtering, wavelet transforms, and graph-based methods for detecting subtle physiological changes.
- Validation studies in controlled and naturalistic settings, addressing challenges in terms of the accuracy, usability, and generalisability of psychophysiological sensors.

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### Guest Editor

Dr. Yvonne Tran

School of Architecture, Design and Planning, The University of Sydney, Camperdown, Australia

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### Deadline for manuscript submissions

closed (15 May 2026)



## Sensors

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## About the Journal

### 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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### Editor-in-Chief

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