Special Issue

Sensing Brain Activity Using EEG and Machine Learning

Message from the Guest Editor

Understanding brain activity is challenging due to its high structural and functional complexity, as well as high inter- and intra-subject variability. One of the most promising approaches to sense and study it is in the spatiotemporal domain using electroencephalography (EEG) and machine learning techniques (ML). The applied ML techniques address the specifics of EEG data and sensed neural processes, including noise, artefacts, volume conduction, brain connectivity, limited spatial resolution, and high temporal resolution. This Special Issue aims to collect papers presenting recent research on brain activity sensing, analysis, and recognition using machine learning techniques on EEG data, including but not limited to:

- Feature-based ML approaches;
- Artificial neural network architectures;
- Reinforcement learning;
- System dynamics analysis;
- Statistical approaches in modelling;
- Applications of graph theory.

And various applications of machine learning to EEG analysis, such as:

- Clinical diagnostics;
- Emotion recognition;
- Attention recognition;
- Brain activity classification;
- Brain–computer interfaces (BCI);
- Brain connectivity analysis.

Guest Editor

Dr. Peter Rogelj
Faculty of Mathematics, Natural Sciences and Information Technologies, University of Primorska, 6000 Koper, Slovenia

Deadline for manuscript submissions

closed (20 March 2024)

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 9.4
Indexed in PubMed

mdpi.com/si/152725

Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

mdpi.com/journal/sensors

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 9.4
Indexed in PubMed

mdpi.com/journal/sensors

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.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 Bari, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)