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Brain-Computer and Brain-Machine Interfaces: Advances in EEG Acquisition, Processing and Machine Learning Technologies towards Better Usability

Guest Editors:

Prof. Natsue Yoshimura

Dr. Ludovico Minati

Dr. Masaki Nakanishi

Dr. Fernando E. Rosas

Deadline for manuscript submissions:

closed (30 April 2021)

Message from the Guest Editors

Recent developments in data acquisition and processing technology for electroencephalography (EEG), alongside new filtering and machine learning methods, are helping to improve the decoding performance of simplified, low electrode-count EEG systems. These developments have the potential for expanding the scope and potential clinical applicability of EEG-based Brain-Computer and Brain-Machine Interfaces (BCI, BMI). To further accelerate this trend and enhance practical viability and thus social impact, it is necessary to conjointly explore multiple innovation avenues. Under this overarching aim, the special issue addresses all types of EEG-based neural decoding infrastructure aimed at BCI and BMI, including but not limited to the following: Adaptive and non-linear decoding techniques; Advances in real-time processing technology, including artefact reduction and electrode fault mitigation; Advances in sensor, front-end and other hardware technologies, including practical circuits; Advances in all engineering aspects of low-cost, wearable devices, including human-centric design; etc.



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Special Issue



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Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria
Elettrica e dell'Informazione
(Department of Electrical and
Information Engineering),
Politecnico di Bari, Via Edoardo
Orabona n. 4, 70125 Bari, Italy

Message from the Editor-in-Chief

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Sensors Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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