

Special Issue on
EEG-Based Individual Fingerprint: A Step Forward

CALL FOR PAPERS

In the last few years, electroencephalogram- (EEG-) based biometric systems have received increasing attention from the scientific community. It is widely reported that EEG signals may capture subject-specific characteristics and may be potentially used to design effective personal identification systems. Nevertheless, to date most of the effort was devoted to finding out the best approaches to obtain the highest accuracy, often overlooking other relevant issues.

Neurophysiological correlates, the effects due to different and arbitrary methodological choices, and the insufficient comparison between different techniques and experimental setup deserve to be analysed in more detail. Furthermore, these features may play a key role on (i) brain computer interface (BCI) applications, where the performances are known to vary considerably among different subjects, and (ii) clinical applications, where the evaluation and monitoring of the disease progression should take individual characteristics into account.

This special issue encourages the submissions of original works that try to highlight the importance of these aspects. Authors of this special issue are strongly encouraged to make all code and data underlying the findings described in their manuscript fully available.

Potential topics include but are not limited to the following:

- ▶ Effects induced by artefact, epoch length, frequency content, and multisession
- ▶ Time-varying approaches to neurophysiology
- ▶ Source-based feature extraction methods for EEG
- ▶ Signal processing and machine learning techniques in EEG
- ▶ Role and relevance of number and position of sensors in system performance and robustness
- ▶ Scalability-discriminating power in very large systems
- ▶ Real-life applications: BCI and clinical monitoring
- ▶ Effect induced by brain disorders in system performance and robustness
- ▶ Comparison of different techniques (EEG, MEG, fMRI, fNIRS, etc.), experimental setup, and metrics

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jhe/eegb/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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Submission Deadline

Friday, 31 August 2018

Publication Date

January 2019