

Emotions classification from EEG signals

Thematic Session within VipIMAGE 2017

VI ECCOMAS Thematic Conference on Computational Vision and Medical Image Processing

Porto, Portugal, 18-20 October 2017

www.fe.up.pt/vipimage

web.fe.up.pt/~vipimage/nav/conference/sessions.htm

Description

Brain computer interfaces provide new channels of output for the brain, yielding a help to disabled people. Emotions recognition from EEG has become more and more important in the last few years.

Emotional brain-computer-interface (BCI) aims at determining the user's affective state by processing electroencephalography (EEG) signals. External stimuli generated by music, videos, images, etc., have been analyzed to yield new communication channels and to detect the mental state of the users. Emotions could be also self-induced. They involve many different aspects such as facial expressions, electrodermal response, speech, ECG, muscle tension, and so on; these parameters may be not sufficient to detect an emotion and could be deceived.

One of the difficulties relies in providing a suitable interface to access real-time user emotions. Affective computing, security, empathic robots, human-computer interaction and brain computer interfaces (neural and cognitive prostheses), neurology and psychology are some of the more recent applications of emotional capture and mapping.

Topics of interest include (but are not restricted to):

- BCI
- Emotional signals
- EEG signals
- Affective computing
- Human – computer – interfaces
- Machine learning techniques
- Classification algorithms
- Databases

Publications

The **proceedings book** will be **published by Springer** under the book series "[Lecture Notes in Computational Vision and Biomechanics](#)" and **indexed by Elsevier Scopus**.

A **special issue** of the **Taylor & Francis international journal** "[Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization](#)", indexed in ISI Thomson Reuters, Elsevier Scopus and dblp, **will be published**. All authors of works presented in VipIMAGE 2017 will be invited to submit an extended version to the special issue.

Important dates

- **Submission of extended abstracts: April 21, 2017 (FINAL deadline)**
- Authors Notification: May 10, 2017
- Final Papers (not compulsive): June 15, 2017

Organizers

Paolo Di Giamberardino

Department of Computer, Control and Management Engineering Antonio Ruberti,
Sapienza University of Rome, Italy

Email: digiamberardino@dis.uniroma1.it

URL: <http://www.dis.uniroma1.it/~digiamb/website/>

Daniela Iacoviello

Department of Computer, Control and Management Engineering Antonio Ruberti,
Sapienza University of Rome, Italy

Email: iacoviello@dis.uniroma1.it

URL: <http://www.dis.uniroma1.it/~iacoviell/>

Giuseppe Placidi

A²VI-Lab, Department of Life, Health and Environmental Sciences,
University of L'Aquila, Italy

Email: giuseppe.placidi@univaq.it

URL: <http://www.giuseppeplacidi.org/>