THE 1ST INTERNATIONAL DECODER WORKSHOP ON BRAIN COMPUTER INTERFACES FOR THE DETECTION OF CONSCIOUSNESS IN NON-RESPONSIVE PATIENTS

DECODING MENTAL STATES

11TH APRIL - 12TH APRIL 2012   BOULOGNE-BILLANCOURT, FRANCE

About DECODER and the workshop

DECODER is a European project that deploys Brain-Computer-Interfaces (BCI) for the detection of consciousness in non-responsive patients. The DECODER team develops an assessment battery that supports an exact diagnosis of the state of consciousness by a variety of auditory, visual, tactile and mental stimulation paradigms. The response of the patient to these stimulation methods is evaluated using modern imaging technologies.

With the developed hard- and software, the risk of misdiagnosis in non-responsive patients (currently estimated up to 40 %) shall be significantly lowered. In addition, a simple communication device which can be used by patients even in a minimal conscious state is developed. DECODER started in February 2010. At the workshop, the DECODER team is happy to present the first promising results to scientific and non-scientific audience.

Call for papers

To encourage a dialog on the state of the art of BCI research, we ask researchers on related fields to submit abstracts, which are presented in oral sessions or as poster at the workshop. The topic of the DECODER workshop will cover two independent streams of research:

1. The **detection of consciousness** in non-responsive patients using various kinds of stimulation methods (auditory, visual and tactile stimulation paradigms, mental tasks like calculation or imagined movement...) & various kinds of detection methods (EEG, fNIRs, fMRI), combined with traditional approaches (coma recovery scale).
2. **The improvement of Brain-Computer-Interface technology** by integrating new stimulation paradigms to an assessment and communication device and by further developing the required hard- and software.

Authors are invited to submit abstracts (2-4 pages) before February, 15th, 2012.

To submit an abstract, please visit our homepage (www.biosignal.at/DecoderWS) and follow the provided instructions. For more information on DECODER, visit the DECODER webpage (www.decoderproject.eu).

Venue

The DECODER workshop takes place in the spacious and fully accessible municipal center **Espace Landowski** of the city of Boulogne-Billancourt. Please note, that the DECODER workshop is organized on the two days preceding the annual meeting of ALIS (Association du Locked-in Syndrome), which takes place on the 13th of April in the **Espace Landowski** as well.

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