Brain-Computer Interface (BCI)

workshop & hands-on seminar

June 24, 2013

g.tec medical engineering Austria and the Aalborg University, Copenhagen

BCI research is one of the most fascinating fields in neuroscience. Mental tasks or focused attention lead to changes in the brain's activity patterns which can be measured, analyzed and classified. The transformation of such changes into a control signal allows to communicate or control external devices just by thinking. An amazing technology helping patients who are about to loose any other ability to interact with their environment. This workshop informs about the major methodological approaches, technical issues, application examples, opportunities and limitations, current trends and many more.

This workshop is intended for people interested in learning the new skill of BCI communication and for people who are interested in combining BCI technology in their field of expertise. The workshop contains material about human computer interaction, biosignal analysis in off-line and real-time mode, rehabilitation, biomedical and electrical engineering, computer sciences and Virtual Reality. In a practical session an introduction of hard- and software used for research and development will be given. Participants can perform live experiments such as P300-spelling, motor imagery BCI for rehabilitation and SSVEP control.

program

10:00	Introduction to major methodological approaches of BCI
10:30	Practical part: introduction to hard- and software
11:00	Keynote: Luis Emilio Bruni: "Assessing experience and the future of cognitive technologies"
11:30	Keynote: Sofia Dahl: "Having the beat: Perception and production of timing"
12:00	Lunch break
13:00	Hands-on sessions: P300-Speller, functional mapping, Motor imagery BCI
16:00	Final discussion & questions

Date: June 24, 2013
Venue: Room D3/ 2.3.124
Aalborg University
A.C. Meyers Vænge 15
2450 Copenhagen SV
Denmark

Special thanks to the host of the workshop, Luis Emilio Bruni, PhD!

speakers

Luis Emilio Bruni, Ph.D. in Molecular Biology and Theory of Science at the Institute of Molecular Biology, University of Copenhagen, Denmark. He is Associate professor at Aalborg University in Copenhagen, Department of Architecture, Design, and Media Technology. His current research considers the integration of appropriate models of cognition and affective states to support innovative applications of immersive-interactive-representational technologies in specific domains and contexts, paying particular attention to the cognitive basis of narrative intelligibility and interpretation processes.

Sofia Dahl, Ph.D., received her PhD in Speech and Music Communication 2006 from KTH, Department of Speech, Music and Hearing, Royal Institute of Technology, Stockholm, Sweden. Her current affiliation is with Aalborg University in Copenhagen, Department of Architecture, Design, and Media Technology, where she holds a position as associate professor. Having a background from electrical engineering and musicology, much of her research has focused on how musicians interact with, and control, their instruments as well as timing production and perception.

Mag. Gunther Krausz is working on EEG, ECoG and spike based BCI projects within g.tec. He will give an overview about company and will also held the practical sessions. He is involved in EC projects like Vere, Renachip, ALIAS, BrainAble, Decoder and Better and will also talk about these projects.

Attendance is free of charge, but registration is required because space is limited. Please contact Alexander Lechner (lechner@gtec.at).

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registration form

Please fill in and fax back: 0043 7251 22240 39
or email it to Alexander Lechner: lechner@gtec.at

Venue: _____

Date: _____

Name & Degree *(as to appear on conference materials)*:

_____

Institution/Affiliation:

_____

Department:

_____

Business Address:

_____

City: _____ State: _____ Zip: _____

Business Phone: _____

E-mail Address (important for receiving the confirmation)

_____

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