Brain-Computer Interface (BCI)

workshop & hands-on seminar

October 15, 2013

g.tec medical engineering Austria and LISV-UVSQ, France

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 the Major BCI Approaches & introduction to hard- and software

11:00 Sylvain Chevallier: "Metric for dictionnaries, application to EEGs"

12:00 lunch

13:00 hands-on session: BCI live experiments

16:00 final discussions & questions

Date: October 15, 2013
Venue: Laboratoire d'Ingénierie des Systèmes de Versailles (LISV-UVSQ)
Saint-Quentin-en-Yvelines
10/12 avenue de l'Europe
78140 Vélizy Villacoublay, France
Room 103-104, Building Garros

speakers

Sylvain Chevallier is a Teacher/researcher at LISV (Laboratoire d'ingénierie des Systèmes de Versailles). He works on robotic assistance for handicaped persons. In interactive robotic group, he is especially in charge of BCI applications.

Alexander Lechner and **Robert Prueckl** from g.tec Guger Technologies OG are working on EEG, ECoG and spike based BCI projects within g.tec. They will give a theoretical overview about BCIs and will also held the practical sessions. They are involved in EC projects like Vere, Renachip, ALIAS, BrainAble, Decoder and Better and will also talk about these projects.

Special thanks to the host of the workshop, Mr. **Tarik Al Ani, Ph.D.,** Associate professor in „ESIEE Paris Département Informatique" and researcher in LISV-UVSQ.

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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