

Brain-Computer Interface (BCI)

w o r k s h o p & h a n d s - o n s e m i n a r

November 14, 2013

g.tec medical engineering Austria and CSNE-San Diego State University

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 that can be measured, analyzed and classified. BCIs translate these brain signals into messages or commands, which allows users to communicate or control external devices just by thinking. This amazing technology can help people who have lost the ability to move because of injury or disease.

This workshop will inform attendees about the major methodological approaches, technical issues, application examples, opportunities and limitations, current trends and much 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 with their field of expertise. The workshop contains material about human computer interaction, neuroscience, biosignal analysis in off-line and real-time mode, rehabilitation neuroscience, biomedical and electrical engineering, computer sciences and Virtual Reality. The afternoon session will feature a live, interactive demonstration of different types of BCIs, during which attendees can use BCIs to communicate while learning to use different hardware and software.



program

10:00 AM Prof. Kee Moon: Welcome and introduction
10:15 AM Introduction to the major BCI approaches
11:30 AM Prof. Ozturk: Keynote lecture

Noon Lunch

01:00 PM Prof. de Sa: Keynote lecture
01:30 PM The hands on sessions begin
04:30 PM Final discussion and questions

Date: November 14, 2013
Venue: College of Extended Studies
Room 210
5250 Campanile Drive
San Diego, CA 92182-1925

Information regarding parking and parking permits for the College of Extended Studies building can be found directly
@ http://www.ces.sdsu.edu/Client/docs/pdfs/extension/parking_map.pdf.
Exhaustive information can be found
@ <http://www.ces.sdsu.edu/Pages/Engine.aspx?id=63>.

Special thanks to the host of the workshop, Prof. Yusuf Ozturk. He is Professor at the Department of Electrical and Computer Engineering at San Diego State University.

Attendance is free of charge, but registration is required because space is limited. Please contact Barbara Vogt (vogt@gtec.at)

coordinators

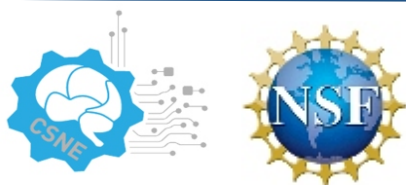
Brendan Allison, Ph.D., earned his graduate degree in Cognitive Science from UC San Diego in 2003. He has been in BCI research for about fifteen years, working with many of the top researchers and groups. He will perform the brain-computer interface workshop for g.tec.

Christoph Kapeller from g.tec Guger Technologies OG is working on EEG, ECoG and spike based BCI projects within g.tec. The coordinators have been involved in EC projects like Vere, Renachip, ALIAS, BrainAble, Decoder and Better and will also talk about these projects.

keynotes

Prof. Virginia de Sa is an Associate Professor with the Department of Cognitive Science at UCSD. Her laboratory's goal is to better understand the neural basis of human perception and learning. The lab studies the computational properties of machine learning algorithms and also investigates what physiological recordings and the constraints and limitations of human performance tell us about how our brains learn.

Prof. Yusuf Ozturk is a Professor of Electrical and Computer Engineering at San Diego State University and a member of Center for SensoryMotor Neural Engineering (CSNE). The focus of CSNE is to study and understand how biological systems acquire and process information in an attempt to develop intelligent systems and robots which sense and move like biological systems, and devices implanted in or interfaced with neural systems. The CSNE research group at San Diego State University investigates new sensor technologies for brain computer interfaces, robust signal processing algorithms for acquiring and processing physiological recordings and prosthetic devices driven by physiological signals.



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registration form

**Please fill in and fax back: 0043 7251 22240 39
or email it to Barbara Vogt: vogt@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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