Workshop: Current and future applications of non-invasive and invasive BCIs

University POLITEHNICA of Bucharest & “Gheorghe Asachi”
Technical University of Iasi & g.tec medical engineering Austria

May 24th, 2017

Venue: Faculty of Automatic Control and Computers
PRECIS Building, ROOM PR603
Reconfigurable high-confidence medical devices LAB
Address: 313 Splaiul Independentei, sect. 6, Bucharest
Tel: +40 744 286352
https://cs.pub.ro

About the Workshop
Research groups all over the world have been working enthusiastically on Brain-Computer Interfaces (BCIs), which provide a direct connection from the human brain to a computer. BCIs translate brain activity into control signals for numerous applications, including tools to help severely disabled users communicate and improve their quality of life. BCIs have been used to restore movement, assess cognitive functioning, and provide communication and environmental control. During this workshop, we will demonstrate the three major BCI approaches to limitation of space. Please contact Attendance is free of charge but registration is required due to 10
12:00 Lunch break
13:00 Hands-on sessions: BCI live experiments, g.Naultilus, RecoveriX
16:00 Final discussion & questions
Attendance is free of charge but registration is required due to limitation of space. Please contact Nirvana Popescu nirvana.popescu@cs.pub.ro, Marian Poboroniuc mpobor@tuiasi.ro, Francisco Fernandes fernandes@gtec.at
N.B.: The workshop will be held in English.

Program:

9:30 Nirvana Popescu: Intelligent hand rehabilitation systems
9:50 Marian Poboroniuc: TUIASI research related to BCI-based Rehabilitation
10:10 Ioan Dumitrache: Trends in Neurosciences
10:30 Francisco Fernandes & Danut Irimia: Introduction to major methodological approaches of BCI & introduction to hard- and software. Theoretical preparation of the hands-on experiments.
12:00 Lunch break
13:00 Hands-on sessions: BCI live experiments, g.Naultilus, RecoveriX
16:00 Final discussion & questions

Speakers:

Nirvana Popescu is Habilitated Professor at Computer Science Department in UPB. Her main research interests are: intelligent systems, fuzzy logic and control, neural networks, cognitive and autonomous robots, rehabilitation medical devices, reconfigurable computers. At UPB, she is the leader of the Lab. for „Reconfigurable high-confidence medical devices”. She was involved in projects related to neuro-fuzzy diagnosis of EKG, EEG and EMG (receiving MEDINFO award) and neuroprostheses design and control.

Marian Poboroniuc is Habilitated Professor for Robotics & Neuroprostheses at Faculty of Electrical Engineering, TUIASI. His current research interests involve mobile robots control algorithms, human motion analysis and synthesis, prosthetics, biomechanics, brain-computer interfaces and rehabilitation robotics. He is actively involved in several national and international research projects, of which most are related to neuroprostheses design and control, BCI and to increasing the pool of qualified Electrical and Information Engineering graduates across Europe (e.g. SALEIE EU project).

Francisco Fernandes is the Regional Sales Officer of g.tec medical engineering GmbH responsible for the Romanian market, between others. Specialised in the commercialization of medical devices, he has been working with g.tec since 2014.

Danut-Constantin Irimia is an Assistant Professor for Robotics and System Theory at TUIASI. Since 2012 he is also a research collaborator of g.tec medical engineering GmbH focusing on biomedical signal processing and Brain-Computer Interfaces for post-stroke rehabilitation.

Special thanks to prof. dr. eng. Ioan Dumitrache and the hosts of the Workshop.
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Registration Form:

Please fill in and send it back by email to
Nirvana Popescu: nirvana.popescu@cs.pub.ro
Marian Poboroniuc: mpobor@tuiasi.ro and/or
Francisco Fernandes: fernandes@gtec.at

Name & Degree (as to appear on workshop materials):
________________________________________________________

Institution/Affiliation:
________________________________________________________

Department:
________________________________________________________

Business Address:
________________________________________________________

City: ___________________ State: ________ Zip: _______________

Business Phone: ___________________________________________

E-mail Address (important for receiving the confirmation)
________________________________________________________