



Title: 1st Iranian IBRO/APRC School of Cognitive Neuroscience on Human Brain Mapping

Type: School

Date: September 23 – October 04, 2016

Application: May 01 – June 15, 2016

Place: National Brain Mapping Lab, Tehran, Iran

Director: Hamid Soltanian-Zadeh, PhD, University of Tehran, Iran

Scientific Secretary: Vincent Walsh, PhD, University College London, England

Executive Secretary: Abbas Haghparast, PhD, Shahid Beheshti University of Medical Sciences, Iran

Deputy Scientific Secretary: Hamed Ekhtiari, MD, PhD, Institute for Cognitive Sciences Studies, Iran

Deputy Executive Secretaries: Amir Hossein Batouli, PhD; Fatemeh Yavari, PhD; Reza Khosrowabadi, PhD; Zahra Fatahi Vanani, PhD; Hossein Azizi, PhD; Ali Shahbazi, PhD

Host Institutes: National Brain Mapping Lab, University of Tehran, Tehran University of Medical Sciences, Shahid Beheshti University of Medical Sciences, Iran University of Medical Sciences, Institute for Cognitive Sciences Studies, Tarbiat Modares University and Shahid Beheshti University

Sponsors: International Brain Research Organization, Iranian Neuroscience Society and Cognitive Sciences and Technologies Council of Iran

Lecturers and Instructors:

- International Symposium Lecturers

- **Ata Akin, PhD (fNIRS)**; Department of Medical Engineering, Acibadem University, Istanbul, Turkey
- **Bahador Bahrami, MD, PhD (fMRI)**; Institute of Cognitive Neuroscience, University College London (UCL), London, England
- **Fabien Lotte, PhD (BCI)**; Inria Bordeaux Sud-Ouest, Talence, France
- **Neil G. Muggleton, PhD (TMS/tES)**; Institute of Cognitive Neuroscience, National Central University, Taiwan
- **Hamed Nili, PhD (fMRI)**; Department of Experimental Psychology, Medical Sciences Division, University of Oxford, England
- **Robert L. Savoy, PhD (fMRI)**; MGH/HST Athinoula A. Martinos, Center for Biomedical Imaging, Charlestown, USA
- **Vincent Walsh, PhD (TMS/tES)**; Institute of Cognitive Neuroscience, University College London (UCL), London, England

- Domestic Symposium Lecturers

- **Mohammad Reza Ay, PhD (PET)**; Department of Medical Physics and Biomedical Engineering, Tehran University of Medical Sciences (TUMS), Tehran
- **Hamed Ekhtiari, MD, PhD (fMRI/TMS/tES)**; ICSS and Iranian National Center for Addiction Studies, TUMS, Tehran
- **Gholamali Hossein-Zadeh, PhD (fMRI)**; Department of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran
- **Kamal Kharrazi, PhD (Cognitive Science)**; University of Tehran and the Institute for Cognitive Sciences Studies (ICSS), Tehran
- **Hamid Latifi, PhD (Optogenetics)**; Laser and Plasma Research Institute & Faculty of Physics, Shahid Beheshti University, Tehran
- **Mohammad Ali Oghabian, PhD (fMRI)**; Department of Medical Physics and Biomedical Engineering, TUMS, Tehran
- **Seyed Kamaledin Setarehdan, PhD (fNIRS)**; Department of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran

- **Amir Masoud Sodagar, PhD (BCI)**; Faculty of Electrical Engineering, K.N. Toosi University of Technology, Tehran
- **Hamid Soltanian-Zadeh, PhD (fMRI/EEG/MEG/DTI)**; Department of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran

- International Instructors

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- **Fabien Lotte, PhD (BCI)**; Inria Bordeaux Sud-Ouest, Talence, France
- **Neil G. Muggleton, PhD (TMS/tES)**; Institute of Cognitive Neuroscience, National Central University, Taiwan
- **Hamed Nili, PhD (fMRI)**; Department of Experimental Psychology, Medical Sciences Division, University of Oxford, England
- **Robert L. Savoy, PhD (fMRI)**; MGH/HST Athinoula A. Martinos, Center for Biomedical Imaging, Charlestown, USA
- **Vincent Walsh, PhD (TMS/tES)**; Institute of Cognitive Neuroscience, University College London (UCL), London, England

- Domestic Instructors

- **Hamed Ekhtiari, MD, PhD (fMRI/TMS/tES)**; ICSS and Iranian National Center for Addiction Studies, TUMS, Tehran
- **Gholamali Hossein-Zadeh, PhD (fMRI)**; Department of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran
- **Reza Khosrowabadi, PhD (EEG)**; Institute for Cognitive and Brain Sciences, Shahid Beheshti University, Tehran
- **Mohammad Ali Oghabian, PhD (fMRI)**; Department of Medical Physics and Biomedical Engineering, TUMS, Tehran
- **Seyed Kamaledin Setarehdan, PhD (fNIRS)**; Department of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran
- **Ali Yoonessi, MD, PhD (EEG)**; Department of Neuroscience, School of Advanced Technologies in Medicine, TUMS, Tehran

Themes: (1) Attention/Working Memory (2) Decision Making/Executive Functions

Audiences: MD, PhD, and Post-Doc Students in Related Disciplines

Expected numbers of international and domestic students: 24 Students (12 Iranian and 12 International Students); Fully Funded

Age-limit of the Audiences: ≤ 35 YO

Opening Ceremony & Registration: Friday, 23rd Sep., 2016

Past Experience: 1st IBRO/APRC Iranian Associate School of Cognitive Neuroscience on Functional Human Brain Mapping (May 22-28, 2015)

Registration and Opening Ceremony (23 Sep., 2016)											
Two-days Symposium (24-25 Sep., 2016)											
Time Day	8:30-10:00		10:00-10:30	10:30-12:00		12:00-14:00	14:00-15:30		15:30-16:00	16:00-17:30	
Sat.	Lecture 1	Lecture 2	Break	Lecture 3	Lecture 4	Lunch	Lecture 5	Lecture 6	Break	Lecture 7	Lecture 8
Sun.	Lecture 9	Lecture 10		Lecture 11	Lecture 12		Lecture 13	Lecture 14		Lecture 15	Lecture 16

Lecture No.	Lecturer	Domain	Tentative Title of the Talk
First Day (24 Sep., 2016)			
1	Hamid Soltanian-Zadeh	fMRI/EEG/MEG/DTI	Integrated Analysis of EEG/MEG/fMRI/DTI
2	Hamed Ekhtiari	fMRI	fMRI for Medicine: from Scanner to Bed
3	Vincent Walsh	TMS/tES	Some Limitations of Human Brain Stimulation: Making the Leap from the Lab to Life
4	Hamed Nili	fMRI	Visual Perception
5	Mohammad Reza Ay	PET	Positron Emission Tomography Instrumentation in Brain Imaging
6	Bahador Bahrami	Brain & Behavior	Influencing Others: Social, Behavioral, and Neuronal Components
7	Seyed Kamaledin Setarehdan	fNIRS	Functional Near-Infrared Spectroscopy: Theory and Applications
8	Hamid Latifi	Optogenetics	Optical Brain Imaging
Second Day (25 Sep., 2016)			
9	Kamal Kharrazi	Cognitive Science	Functional Imaging and Learning
10	Robert L. Savoy	fMRI	Experimental Task Design AND or VERSUS Resting State Connectivity?
11	Amir Masoud Sodagar	BCI	Implantable Approach to Brain Mapping: An Engineering Perspective
12	Fabien Lotte	BCI	Principles and promises of EEG-based Brain-Computer Interface technologies
13	Gholamali Hossein-Zadeh	fMRI	fMRI Brain Decoding
14	Ata Akin	fNIRS	Shining Light on the Brain
15	Mohammad Ali Oghabian	fMRI	Neuroimaging Methods for Human Brain Mapping
16	Neil G. Muggleton	TMS/tES	Investigating Brain Function with TMS: Background, Methods, and Examples.

Techniques Training and Excursion Day (26 Sep -2 Oct., 2016)		
Day \ Theme	1) Attention/Working Memory	2) Decision Making/Executive Functions
Monday	TMS	BCI (EEG)
Tuesday	BCI (EEG)	TMS
Wednesday	MRI, fMRI	BCI (fNIRS)
Thursday	BCI (fNIRS)	MRI, fMRI
Friday	Cultural Visits in Tehran	
Saturday	tES	MRI, fMRI
Sunday	MRI, fMRI	tES

Final Days (3-4 Oct., 2016)	
Monday	Proposal Writing (in the morning) & PET Scanning Visit (in the afternoon)
Tuesday	Proposal Presentation and Closing Ceremony

Techniques	Place	Duration	Main Domestic Instructors
MRI, fMRI	National Brain Mapping Lab	2 days	Mohammad Ali Oghabian, PhD Gholamali Hossein-Zadeh, PhD
BCI (EEG, fNIRS)	National Brain Mapping Lab	2 days	Seyed Kamaledin Setarehdan, PhD Reza Khosrowabadi, PhD Ali Yoonessi, MD, PhD
TMS, tES	National Brain Mapping Lab	2 days	Hamed Ekhtiari, MD, PhD

Affiliations of the Domestic and International Lecturers and Instructors

Lecturer/Instructor	Affiliation
Ata Akin	Department of Medical Engineering, Acibadem University, Istanbul, Turkey
Mohammad Reza Ay	Department of Medical Physics and Biomedical Engineering, Tehran University of Medical Sciences (TUMS), Tehran, Iran
Bahador Bahrami	Institute of Cognitive Neuroscience, University College London (UCL), London, England
Hamed Ekhtiari	Institute for Cognitive Sciences Studies and Iranian National Center for Addiction Studies, TUMS, Tehran, Iran
Fabien Lotte	Inria Bordeaux Sud-Ouest, Talence, France
Gholamali Hossein-Zadeh	Department of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran, Iran
Kamal Kharrazi	University of Tehran and the Institute for Cognitive Sciences Studies, Tehran
Reza Khosrowabadi	Institute for Cognitive and Brain Sciences, Shahid Beheshti University, Tehran, Iran
Hamid Latifi	Laser and Plasma Research Institute and Faculty of Physics, Shahid Beheshti University, Tehran, Iran
Neil G. Muggleton	Institute of Cognitive Neuroscience, National Central University, Taiwan
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Seyed Kamaledin Setarehdan	Department of Electrical and Computer Engineering, , College of Engineering, University of Tehran, Tehran, Iran
Amir Masoud Sodagar	Faculty of Electrical Engineering, K.N. Toosi University of Technology, Tehran, Iran
Hamed Nili	Department of Experimental Psychology, Medical Sciences Division, University of Oxford, England
Hamid Soltanian-Zadeh	Department of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran, Iran
Ali Yoonessi	Department of Neuroscience, School of Advanced Technologies in Medicine, TUMS, Tehran, Iran
Vincent Walsh	Institute of Cognitive Neuroscience, University College London (UCL), London, England