Computational NeuroEngineering (CoNE) Laboratory @ HYU

BME Dept., Hanyang-U

Computational NeuroEngineering (CoNE) Laboratory — Since 2006 — HANYANG UNIVERSITY

Lab Members (Jul. 2014)

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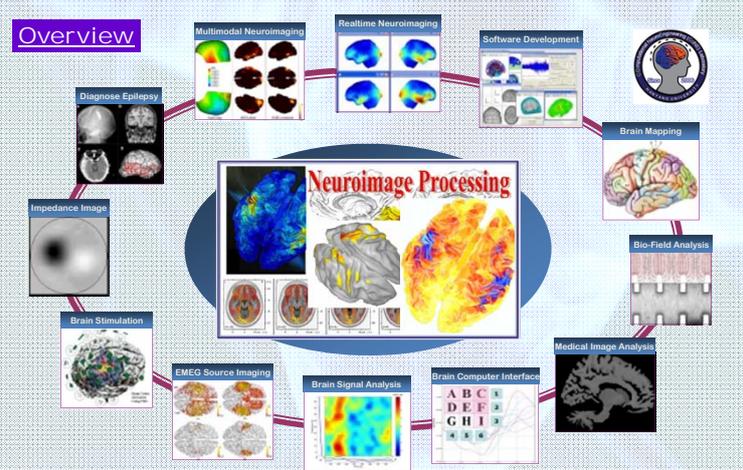
Activities

Publications

More than 100 papers have been published in SCI(E)-indexed journals (as of Jul. 2014)

Selected recent publications published in 2013-2014

1. Han-Jeong Hwang, Jeong-Hwan Lim, Do-Won Kim, and **Chang-Hwan Im**, "Evaluation of Various Mental Task Combinations for Near-Infrared Spectroscopy-based Brain-Computer Interfaces," *Journal of Biomedical Optics*, vol. 19, no. 7, art. ID. 077005, 2014. **Top 20%**

2. Miseon Shim, Do-Won Kim, Seung-Hwan Lee, and **Chang-Hwan Im**, "Disruptions in small-world cortical functional connectivity network during an auditory oddball paradigm task in patients with schizophrenia," *Schizophrenia Research*, vol. 156, pp. 197-203, 2014. **Top 20%**

3. Chang-Hee Han, Hyuna Song, Yong-Guk Kang, Beop-Min Kim, and **Chang-Hwan Im**, "Hemodynamic responses in rat brain during transcranial direct current stimulation: a functional near-infrared spectroscopy study," *Biomedical Optics Express*, vol. 5, no. 6, pp. 1812-1821, 2014. **Top 20%**

4. Jeong-Youn Kim, Hoon-Chul Kang, Jae-Hyun Cho, Ji Hyun Lee, Heung Dong Kim, and **Chang-Hwan Im**, "Combined use of multiple computational intracranial EEG(iEEG) analysis techniques for the localization of epileptogenic zones in Lennox-Gastaut Syndrome (LGS)," *Clinical EEG and Neuroscience*, vol. 45, no. 3, pp. 169-178, 2014. **Top 20%**

5. Jung-Hoon Kim, Do-Won Kim, Won Hyuk Chang, Yun-Hee Kim, Kiwoong Kim, and **Chang-Hwan Im**, "Inconsistent outcomes of transcranial direct current stimulation may originate from anatomical differences among individuals: Electric field simulation using individual MRI data," *Neuroscience Letters*, vol. 564, pp. 6-10, 2014.

6. Do-Won Kim, Han-Sung Kim, Seung-Hwan Lee, and **Chang-Hwan Im**, "Positive and negative symptom scores are correlated with activation in different brain regions during facial emotion perception in schizophrenia patients: A voxel-based sLORETA source activity study," *Schizophrenia Research*, vol. 151, pp. 165-174, 2013. **Top 20%**

7. Han-Jeong Hwang, Dong Hwan Kim, Chang-Hee Han, and **Chang-Hwan Im**, "A new dual-frequency stimulation method to increase the number of visual stimuli for multi-class SSVEP-based brain-computer interface (BCI)," *Brain Research*, vol. 1515, pp. 66-77, 2013.

8. Jeong-Hwan Lim, Han-Jeong Hwang, Chang-Hee Han, Ki-Young Jung, and **Chang-Hwan Im**, "Classification of binary intentions for individuals with impaired oculomotor function: "Eyes-closed" SSVEP-based brain-computer interface (BCI)," *Journal of Neural Engineering*, vol. 10, no. 2, Art.no. 026021, 2013. **Top 20%**

Awards

Media Coverage

Introduction

Overview

Neuroimage Processing

Laboratory Products

BioEST — EEG/MEG source imaging software

MCGAnal — Magnetocardiogram (MCG) analysis software

Comets — Toolbox for 3D field simulation of tDCS

CoNEEG — (Lab-made) Portable 8-ch EEG system

CoNE-Stim — Multi-channel transcranial DC Stimulation System

Laboratory History

Alumni

Han-Jeong Hwang (Ph.D., 2012) TU Berlin, Germany
Young-Jin Jung (Ph.D., 2011) Florida International University, US
Jae-Hyun Cho (M.S., 2012) Max Planck Institute, Germany
Ji Hye Park (M.S., 2011) Hanyang University, Korea
Huije Che (M.S., 2009) Kwangwon Medical, co.
Kwang-Ok An (Ph.D., 2009, Co-Ad.) National Rehab. Center

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NRF 한국연구재단   MKE 지식경제부   KRISS 한국표준과학연구원   LG   한양대학교