

2014 IEEE Symposium on Computational Intelligence in Brain Computer Interfaces

(CIBCI 2014)

**Orlando, Florida, USA
9 – 12 December 2014**



**IEEE Catalog Number: CFP14ZAU-POD
ISBN: 978-1-4799-4542-9**

TABLE OF CONTENTS

IEEE SSCI 2014 General Committee	iv
IEEE CIBCI 2014 Committee	v
Friday, December 12	
9:30AM-10:30AM	
CIBCI'14 Session 1	
Chair: Damien Coyle and Robert Kozma	
9:30AM	<i>Development of an Autonomous BCI Wheelchair</i> 1 Danny Wee-Kiat Ng, Ying-Wei Soh and Sing-Yau Goh
9:50AM	<i>Across-subject estimation of 3-back task performance using EEG signals</i> 5 Jinsoo Kim, Min-Ki Kim, Christian Wallraven and Sung-Phil Kim
10:10AM	<i>Abnormal Event Detection in EEG Imaging - Comparing Predictive and Model-based Approaches</i> 10 Jayanta Dutta, Banerjee Bonny, Ilin Roman and Kozma Robert
11:00AM-12:00PM	
CIBCI'14 Session 2	
Chair: Robert Kozma and Kai Keng Ang	
11:00AM	<i>Sensitivity Analysis of Hilbert Transform with Band-Pass FIR Filters for Robust Brain Computer Interface</i> 16 Jeffery Davis and Kozma Robert
11:20AM	<i>Electroencephalographic Method Using Fast Fourier Transform Overlap Processing for Recognition of Right- or Left-handed Elbow Flexion Motor Imagery</i> 24 Tomoyuki Hiroyasu, Yuuki Ohkubo and Utako Yamamoto
11:40AM	<i>Development of SSVEP-based BCI using Common Frequency Pattern to Enhance System Performance</i> 30 Li-Wei Ko, Shih-Chuan Lin, Wei-Gang Liang, Oleksii Komarov and Meng-Shue Song
1:30PM-3:10PM	
CIBCI'14 Session 3	
Chair: Kai Keng Ang and Damien Coyle	
1:30PM	<i>EEG-based Golf Putt Outcome Prediction Using Support Vector Machine</i> 36 Qing Guo, Jingxian Wu and Baohua Li
1:50PM	<i>Non-supervised Technique to Adapt Spatial Filters for ECoG Data Analysis</i> 43 Emmanuel Morales-Flores, Gerwin Schalk and J.Manuel Ramirez-Cortes
2:10PM	<i>Identification of Three Mental States Using a Motor Imagery Based Brain Machine Interface</i> 49 Trongmun Jiralerspong, Chao Liu and Jun Ishikawa
2:30PM	<i>EEG Subspace Analysis and Classification Using Principal Angles for Brain-Computer Interfaces</i> 57 Rehab Ashari and Charles Anderson
AUTHOR INDEX	64