

2012 Chinese-Finnish Workshop on Intelligent Signal Processing Methods for BCI Systems

The Brain Computer Interfaces (BCI) technology has been intensively employed in the life quality improvement of handicapped people with impaired vision or hearing. The EEG signal processing including noise filtering, resolution enhancement, data mining, pattern recognition and classification, etc. plays an important role in the implementation of the BCI systems. Especially, extraction and analysis of the perception-related features in the single-trial EEG signal is indeed a crucial topic. There is also a great need for faster and more reliable processings techniques for the EEG and ECoG signals. The main goal of the 2012 Chinese-Finnish Workshop on Intelligent Signal Processing Methods for BCI Systems is to bring together researchers from multidisciplinary fields to explore the theory and applications of state-of-the-art intelligent signal processing methods in the BCI systems. All kinds of papers presenting novel signal processing, analysis and data mining methods for utilization in the BCI systems are welcome. This workshop is jointly sponsored by the National Natural Science Foundation of China and Academy of Finland. It will be held within the 2012 International Conference on Computational Intelligence and Security.

Topics of interest include, but are not limited to:

- * Cognitive components-based EEG and ECoG data processing methods.
- * Feature extraction algorithms for the EEG and ECoG signals, such as ICA and wavelet.
- * Adaptive and robust pattern classification techniques for the non-stationary EEG and ECoG signal processing.
- * Computational intelligence methods with applications in BCI systems.
- * Measurement and detection methods for EEG and ECoG signals.
- * Adaptive signal processing methods for handling uncertainty and noise in EEG and ECoG signals.

Paper submission information:

All manuscripts should be prepared and submitted according to the guidelines given on the CIS2012 webpage.

Workshop Co-Chairs:

Prof. Li Yao, Beijing Normal University, China

Prof. Jari Hyttinen, Tampere University of Technology, Finland

Workshop Program Committee Co-Chairs:

Prof. Rongfang Bie, Beijing Normal University, China

Dr. Xiao-Zhi Gao, Aalto University, Finland