Prof. Banghua Yang
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Prof Banghua is a Professor in the Department of Automation, Shanghai University, Shanghai, China. Dr Yang has been working on motor imagery brain computer interfaces since 2003. Her research interests include brain-computer interfaces, EEG signal processing, biomedical signal processing, virtual reality and rehabilitation application. She has undertaken three National Natural Science Funds as the project leader and five other national projects. She won the talent program of Shanghai Pujiang. Prof Yang has published over 100 articles in peer-reviewed core national and international journals. She is a reviewer of many national and international journals. She edited 3 textbooks. Prof Yang and her students have developed many processing algorithms for EEG signal and rehabilitation application by combining BCIs with virtual reality. Her research group attended the 2th and 3th China BCI Competition, which was held by Tsinghua University in Beijing and was supported by National Science Foundation of China. Her research team obtained the third prize in the robot control based on BCI. She has been invited to make more than 30 academic reports at domestic and international conferences.

Speech Title: “MI+SSVEP EEG Decoding and Its Application”

Abstract: Brain-computer interface (BCI) technology realizes human-computer interaction with computers and other devices by decoding brainwave signals. MI and SSVEP are two typical experimental paradigms of brain-computer interface, which can control robot arm by interpreting EEG under motor imagination task and EEG with eyes focusing on specific target respectively. This technology has a growing potential application value in rehabilitation, auxiliary control, entertainment games and other fields. Explain the basic principles of the two paradigms, the related core EEG decoding technology, and the application of virtual reality technology in the fields of human-computer interaction and rehabilitation.