

Special Session

Code: 18ga7

Title

Multi-modal Diagnosis of Human Brain Disorders

Proposer / Main Organizer

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IEEE Member or SMC Society Member

Both

Category

Human Machine Systems

Number of Expected Paper Submissions:

6 or more

Keywords

- *Deep learning*
- *Affective Computing*
- *Multi-modal analysis*
- *Natural language processing*
- *Human-robot interaction*

Brief Description and Justification (200-250 words):

Over the past decade, deep learning has demonstrated exemplary performance on a broad range of research fields, from computer vision to speech analysis and natural language processing. In particular, deep learning technologies based on multi-modal data (e.g., text, speech, and visual data) have helped achieve fruitful results in the diagnosis and rehabilitation of human brain disorders, e.g., Autism spectrum disorder (ASD), depression, Alzheimer's disease, etc. This special session targets researchers and practitioners from both academia and industry to publish their recent research achievements, share ideas and establish cross-discipline collaboration from different communities. We seek theoretical, algorithmic, and methodological advances in deep

learning to deal with multi-modal data for the diagnosis and rehabilitation of human brain disorders, as well as novel applications and use cases.