

# Integrative neuroengineering approaches for advancing brain monitoring and prediction

September 7th (Monday), 11:10-12:50

Conference Hall, Daejeon Convention Center, Daejeon, Korea

Registration [KSBNS2026.org](http://KSBNS2026.org)

## Organizers



**Jae-Ho Han**



**Yoonbae Oh**



**Bo-yong Park**



**Hojin Jang**

Department of Brain and Cognitive Engineering, Korea University, Korea

This symposium showcases cutting-edge neuroengineering innovations that integrate computational modeling, advanced imaging, and real-time neural monitoring to address brain and spinal disorders. By bridging engineering with clinical and basic neuroscience, it provides the community with transformative tools and new insights into neural computation.

## Speakers



**Kwangsun Yoo**

Department of Digital Health, Samsung Advanced Institute for Health Sciences & Technology (SAIHST), Sungkyunkwan University, Korea  
*"A brain-based normative predictive framework for phenotypes and diseases"*

He is a computational neuroscientist known for developing predictive frameworks that link brain network organization to cognitive and clinical phenotypes. His research integrates normative modeling to advance individualized prediction and understanding of neuropsychiatric and neurodevelopmental conditions.



**Avner Meoded**

Department of Radiology, University of Missouri-Kansas City School of Medicine, USA  
*"The Pediatric Connectome in Clinical Practice: Principles and Applications"*

Dr. Meoded's presentation explores the clinical applications of the pediatric connectome, highlighting how advanced network-based neuroimaging can enhance our understanding of brain development and disease. We will discuss how connectomic analyses derived from diffusion MRI can inform diagnosis and guide treatment planning in pediatric CNS disorders.



**Kendall H. Lee**

Department of Neurologic Surgery, Mayo Clinic, USA  
*"A multimodal platform for real-time neurochemical and electrophysiologic monitoring for intraoperative neurosurgical applications"*

Dr. Kendall H. Lee will present the development and preclinical validation of MAVEN, a multimodal platform enabling real-time integration of electrophysiological and neurochemical signals during neurosurgical applications. His talk will highlight how this technology overcomes longstanding limitations in spatiotemporal resolution to advance mechanistic insights and enable closed-loop, personalized neuromodulation strategies.



**Hio-Been Han**

Graduate School of SeoulTech-KIRAMS Medical Sciences, Seoul National University of Science and Technology, Korea  
*"EEG theta rhythms as a mesoscopic mechanism for neural information processing"*

Hio-Been Han is a neuroscientist whose research focuses on how neural oscillations shape information processing in the brain. His recent work combines electrophysiology and behavior to reveal how rhythmic brain activity dynamically organizes working memory and flexible decision-making under changing conditions.