

Special Issue

Wearable and AI-Driven Sensing for Brain Disorders: From Digital Biomarkers to Clinical Translation

Message from the Guest Editors

In the 21st century, brain health has become central to human wellbeing and productivity. Consequently, there is an urgent need to strengthen research on brain disorders—including neurodegenerative diseases (e.g., Parkinson's disease), mental health conditions (e.g., depression), and neurological disorders (e.g., stroke). Recent advances in wearable sensing technologies and artificial intelligence (AI) offer transformative opportunities for understanding and managing brain disorders. This Special Issue aims to present and disseminate the most recent original research and comprehensive reviews related to wearable sensor systems and AI-based methods applied to brain disorders. We welcome contributions that demonstrate the clinical applicability of wearable sensors, integration with AI for diagnostic or therapeutic purposes, and evidence-based validation in patient populations and real-world contexts. Topics of interest for publication include, but are not limited to, the following: hardware design and innovation; signal processing; digital biomarkers; data privacy and ethics; human–technology interaction; AI-based modeling; clinical validation; real-world translation

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