CALL FOR PAPERS
IEEE Journal of Selected Areas in Sensors Special Section on

Emerging Brain Imaging, Decoding Technologies and Clinical Applications

This Special Section of IEEE Journal of Selected Areas in Sensors (JSAS) aims to demonstrate state-of-the-art brain imaging, decoding, and clinical applications of these technologies. Individuals with brain disorders, such as Alzheimer's dementia and major depressive disorder (MDD), typically suffer from serious life disability. However, taking MDD as an example, so far, no brain markers or medical devices - claimed to be valid and reliable for diagnosing MDD - have been approved by the FDA. This means that although various promising brain imaging and decoding technologies have been proposed, conceptually proved, or even clinically evaluated over the past two decades, there is still a translational gap between lab studies and real-world applications. Sensing and signal/image decoding are two keys to narrow such gap. This Special Section will focus on recent advances in brain imaging, decoding technologies, and their clinical applications.

Original research contributions, tutorials and review papers are sought in emerging brain imaging and decoding related areas including (but not limited to):
- Magnetic resonance imaging (MRI), functional MRI, positron emission tomography (PET), near infrared spectroscopy (NIRS), electroencephalography (EEG)
- Emerging sensing systems for brain structure and function
- Advanced system-on-sensor, wearable device or edge computing/processing techniques for brain activity recoding and transmission
- Efficient and/or effective brain disorder diagnostic methods based on computational neuroscience and machine learning
- Brain-activity signal/image decoding
- Image/signal interpretation for brain disorder diagnosis and detection
- Brain-computer interfaces for brain-related disorders (ALS for example)
- Clinical evaluation for the diagnoses, treatment response prediction, severity assessment of brain disorders, etc.

Solicited and invited papers shall undergo the standard IEEE Journal of Selected Areas in Sensors (JSAS) peer review process. All manuscripts must be submitted on-line, via the IEEE Author Portal, see https://ieee.atyponrex.com/journal/jsas. When submitting, please indicate in the "Manuscript Type" roll down menu that the paper is intended for the "emerging brain imaging, decoding technologies and clinical applications" Special Section. Authors are particularly encouraged to **suggest names of potential reviewers** for their manuscripts in the space provided for these recommendations in *Manuscript Central.* For manuscript preparation and submission, please follow the guidelines in the *Information for Authors* at IEEE Journal of Selected Areas in Sensors web page, https://ieee-jsas.org/

Deadlines:
- · Manuscript Submission: · August 31st, 2024
- · Notification of Acceptance: · October 1st, 2024
- · Final Manuscript Due: November 1st, 2024
- · Published in IEEE Xplore: December 1st, 2024
- ·

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