Call for Papers IEEE Transactions on Human-Machine Systems
Special Issue on Brain Discovery and Neurotechnology:
***Featured Research from IEEE Brain Discovery & Neurotechnology Workshop*s**

This special issue is motivated by the success of the recent IEEE Brain Discovery and Neurotechnology Workshops. This annual workshop is sponsored by the IEEE Brain Technical Community. It is intended to foster interactions among researchers and clinical practitioners working on various aspects of neurotechnology including development and deployment of neurotechnology, the study of the brain function through neuroimaging technology and machine learning, and translation of emerging neurotechnologies to clinical practice. The proposed Special Issue seeks high-quality contributions based on talks and posters presented at IEEE Brain Discovery and Neurotechnology Workshop. Submissions need to be original research and may be extensions of the work presented at the workshop. Submissions should align with the call for contributions to the workshop and should also fall within the scope of the IEEE Transactions on Human-Machine Systems. We welcome a broad range of contributions for advancing the understanding of the human brain through new neural signal recording technology, machine learning, or translation to clinical studies. Potential contributions may address, but are not limited to:

- Low-cost wearable electroencephalography (EEG), Ultra high-density EEG, Stereoelectroencephalography (sEEG)
- Advanced functional near infrared spectrography (fNIRS), Functional magnetic resonance imaging (fMRI), Functional ultrasound imaging (fUS)
- Optically pumped magnetometer magnetoencephalography (OPM-MEG)
- Neural lace, neural dust, stent-electrode recording arrays (stentrodes) and endovascular recording techniques, Multielectrode arrays
- Neuromorphic computing and systems
- Deep learning, Self-supervised learning from neural data, classification and prediction of health status or specific outcomes through biomarker identification
- Explainable AI (XAI) for neuroimaging
- Multimodal data fusion
- Non-invasive brain stimulation technologies/therapies (TMS, tDCS), Optogenetics-based therapies
- Neuroprosthetics for the restoration of vision, hearing, or motor function
- Brain-computer-interfaces

Submission Guidelines:

Manuscripts submitted to this Special Issue must be original, previously unpublished research papers presenting a significant extension of a research study presented at IEEE Brain Discovery and Neurotechnology Workshops. Papers should be submitted through http://mc.manuscriptcentral.com/thms, with a cover letter stating: "This manuscript is being submitted to the Special Issue on "Brain Discovery and Neurotechnology: Featured Research from the IEEE Brain Discovery and Neurotechnology Workshops." For detailed submission information, please refer to the "Information for Authors" section posted at http://www.ieeesmc.org/publications/transactions-on-human-machine-systems/special-issues.

Important Dates:

Manuscript initial submission: October 31, 2025
Decision from first round of reviews: January 31, 2026
Revised manuscript submission: March 31, 2026
Notification of final decision: May 31, 2026
Final manuscript submission: June 2026
Expected publication: August 2026

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