SPECIAL ISSUE ON

Automated Microwave Dielectric Property Extraction Using Deep Neural Networks



Deep neural networks (DNNs) enable fast, accurate dielectric property prediction from S-parameters, overcoming limitations of traditional inverse methods. Robust to noise and adaptable to temperature or frequency, DNN-based approaches facilitate real-time, non-destructive microwave tomography for moisture mapping, material characterization, and diverse engineering applications, supporting scalability and real-world deployment.

Important Dates:

Submission Deadline - 15th March 2026 Final Acceptance - 10th September 2026

Topics of interest include, but are not limited to:

- Automation
- Tomography
- CNNs
- Hybridization
- RNNs

- TransferLearning
- EdgeComputing
- GANs
- PINNs

- DataFusion
- Attention
- Ensembling
- Quantum