Session Title:	[TE1] Next-Generation Antenna Architectures: Lenses, Arrays, and Machine Learning
Session Date:	December 4 (Thu.), 2025
Session Time:	08:30–10:10
Session Room:	Room E (301)

[TE1-1] [Invited]   08:30–08:50

Low-Cost Lightweight 3D-Printed Luneburg Lenses Enabling Both Wide Angular and Long Distance Coverage for Radio Applications

Jun Xu, Wei Hong, Kai Chen and Yuechao Wang (Southeast University, China)

[TE1-2]   08:50–09:10

Ka-Band Omnidirectional Circularly Polarized Waveguide Slot Antenna for Low-Altitude UAV Applications

Jinlun Li and Yuqing Zhu (Southeast University, China); Chengcheng Yu (Sunway Communication, China); Hongxin Zhao (State Key Laboratory of Millimeter Waves, Southeast University, China)

[TE1-3]   09:10–09:30

An L-Band Dual-Polarized 8×8 Array with RFSoC-Based SCORE Digital Beamforming

Shiwen Tang and Peizhuo Yang (National University of Singapore, Singapore); Koen Mouthaan (NUS, Singapore)

[TE1-4]   09:30–09:50

Dual-Polarized, Lightweight, and Conformal L-Band Antenna Array with RFSoC for UAV Platforms

Xunlei Wang, Mohammad Ameen, Peizhuo Yang and Gong Chen (National University of Singapore, Singapore); Koen Mouthaan (NUS, Singapore)

[TE1-5]   09:50–10:10

Machine-Learning-Driven Auto-Tuning of PIFA for Recurrent Problems in Dynamic Environments via Offline Surrogate Modeling

Wei-Cheng Chen (National Taiwan University, Taiwan)