

Session Title: [P2] Interactive Forum II (Poster)

Session Date: December 4 (Thu.), 2025

Session Time: 15:00-16:40
Session Room: 3F Lobby

## [P2-001]

Focusing System with Multiple Dielectric Lenses for mmWave OAM Waves Generated by Loop Antenna Array

Ryo Ishikawa, Masaaki Kawase, Takumi Aramaki, Akira Saitou and Kazuhiko Honjo (The University of Electro-Communications, Japan)

## [P2-002]

Amplitude–Disorder Inspired Synthesis of Wideband Wide–Scanning Hybrid Analog–Digital Array

Yuhan Fan (National University of Singapore, Singapore)

## [P2-003]

Self-Calibration Algorithm for Amplitude-Phase Errors in UHF Radar Arrays Based on Enhanced Channel Optimization Particle Swarm Optimization Algorithm

ZhiCheng Qian, Qing Zhou, LinXun Jiang, Xiaohua Zhu and Hong Hong (Nanjing University of Science and Technology, China)

## [P2-004]

Single-Station Localization via AoA Estimation with Augmented Nested Arrays

Shengxian Xu, Chenglin Huang, Zengshan Tian and Kaikai Liu (Chongqing University of Posts and Telecommunications, China)

## [P2-005]

A New Design for a High Efficient Bidirectional Dualband Multi-Beam Antenna Array

Engelbert Tyroller (Werner-Heisenberg-Weg 39, Germany); Stefan Lindenmeier (Universität der Bundeswehr, Germany)



## [P2-006]

#### A Miniaturized Dual-Band Implantable Antenna for Biomedical Applications

Xinyi Wu (Harbin Institute of Technology, China); Beijia Liu (Harbin Institute of Technology & School of Electronics and Information Engineering, China); Siqi Wang, Lei Xing and Shengchang Lan (Harbin Institute of Technology, China)

## [P2-007]

High-Gain Conical Beam Coverage Realized by Using Switchable Tilted Patch Array Elements for Satellite Broadcasting Reception

Yuta Ishihara, Takuto Oyama and Nobuhiro Kuga (Yokohama National University, Japan)

#### [P2-008]

Dual-Wideband Metasurface for Polarization Conversion Targetting Integrated 5G and 6G MIMO Communication

Muhammad Awais Khan Bangash (School of Electrical and Computer Engineering (ECE) Oklahoma State University, USA); Muhammad Ikram (American University of Kuwait, Kuwait); Syed Shahan Jehangir (Oklahoma State University, USA)

## [P2-009]

#### A Three-Stage Evolutionary-Reinforced Framework for Antenna Optimization

Bingjie Zhang, Yue Su and Shunli Li (Southeast University, China); Xiaoxing Yin (State Key Laboratory of Millimeter Waves, China); Hongxin Zhao (State Key Laboratory of Millimeter Waves, Southeast University, China)

#### [P2-010]

SIW Based Self-Triplexing Antenna for mm-Wave Communications with Ultra-Low Frequency Ratio

Chandu DS (VIT-AP University, India); Kritika Bansal (Vellore Institute of Technology AP University, Amaravati, India); Rusan Kumar Barik (SR University, Warangal, Telangana, India)

## [P2-011]

#### Optimizing Tension Tie Placement to Enhance Gain in Truss Reflector Antennas

Jongho Keun and Changhyeon Im (Hongik University, Korea (South)); Changseong Kim and Seul-Gi Park (Hanwha Systems, Korea (South)); Hosung Choo (Hongik University, Korea (South))



## [P2-012]

# A Dual-Polarized 2 Bit Reconfigurable Reflectarray Based on Magneto-Electric Dipole Elements

Wei Zheng and Junyi Lv (Southeast University, China); Feng Zhao (Nanjing Mobile Communication & Computing Innovation Institute, China); Wu-Guang Zhao (Southeast University, China); Jingxue Wang (Hohai University, China); Fan Wu (Southeast University, China)

#### [P2-013]

## Design of a Dual-Polarized Crossing Perpendicular-Corporate-Feed Waveguide 8×8-Slot Array Antenna

Hinata Ishikawa, Jiro Hirokawa and Takashi Tomura (Institute of Science Tokyo, Japan)

## [P2-014]

#### A Beamwidth Controllable and Switchable Transmitarray Antenna

Shizhe Xu and Rundong Zhang (Southeast University, China); Zhenghuan Wei (Southeast University, China & Purple Mountain Laboratories, China); Yizhu Shen (Southeast University, China)

#### [P2-015]

#### A 3D Printing-Based Ultra-Wideband Metallic Glass Antenna

Guobao Feng (China Academy of Space Technology, China & CAST Xi'an, China)

#### [P2-016]

## Low-Profile, UWB, Dual-Polarized Magneto-Electric Antenna

Shenglin Rao, Qiankun Xu, Jingkai Xue, Jiahao Chen, Chunyue Zhao and Xing Chen (Sichuan University, China)

#### [P2-017]

#### Design of Optimal Illumination Mask for Phased Array-Fed Offset Reflectors

Minsang Yoon and Changhyeon Im (Hongik University, Korea (South)); Changseong Kim and Seul-Gi Park (Hanwha Systems, Korea (South)); Hosung Choo (Hongik University, Korea (South))



## [P2-018]

A Compact Circularly Polarized Filtering Antenna with 2-Bit Reconfigurable Phase

Ge Fan (Southeast University, China)

## [P2-019]

Wideband Endfire Magnetoelectric Dipole Antenna Array Based on Micro-Metal Additive Manufacturing

Quanda Liu and Fan Wu (Southeast University, China); Jingxue Wang (Hohai University, China)

## [P2-020]

Design and Analysis of UWB Microstrip Antenna for 5G Communications and Military Applications

Sarra Khacha (University of Ferhat Abbas, Algeria); Mehenni Nor-elhouda (University Ferhat ABBAS Setif 1, Algeria); Djamel Sayad (University of 20 Aout 1955 - Skikda, Algeria); Rami Zegadi (University of Ferhat Abbas, Sétif, Portugal); Issa Elfergani (Instituto de Telecomunicações, Portugal); Mohammad Alibakhshikenari (University of Rome Tor Vergata, Italy); Jonathan Rodriguez (Instituto de Telecomunicações, Portugal); Patrizia Livreri (University of Palermo, Italy); Chan Hwang See (Edinburgh Napier University, United Kingdom (Great Britain)); Takfarinas Saber (National University of Ireland Galway, Ireland); Chemseddine Zebiri (Ferhat Abbas University of Setif, Algeria)

#### [P2-021]

A Dual-Band Dual-Polarized Meta-Lens Antenna for Sub-6-GHz Wireless Communications

Yuehui Cui and Jiaying Du (South China University of Technology, China)

## [P2-022]

Equivalence in Coupling of Radiating Slots with a Reflection–Canceling Post Between the Method of Moments and an EM Simulator for the Array Design

Hayato Sato, Jiro Hirokawa and Takashi Tomura (Institute of Science Tokyo, Japan)



## [P2-023]

# High-Gain, Wideband, Circularly Polarized Transmitarray Antenna Using a Variable Rotation Technique

Mohamed Elhefnawey (Gyeonsang National University, Korea (South) & October 6 University, Egypt); Kyoung Hun Kim (Gyeongsang National University, Korea (South)); Wang-Sang Lee (Gyeongsang National University (GNU), Korea (South))

## [P2-024]

#### Integrated Antenna Design for 4G Microwave & 5G Millimeter Wave Mobile Communications

Muhammad Ikram (American University of Kuwait, Kuwait); Usama Malik (Hanyang University, Korea (South)); Syed Shahan Jehangir (Oklahoma State University, USA); Rifaqat Hussain (Queen Mary University of London, United Kingdom (Great Britain)); Kamel Sultan (University of Queensland, Australia)

#### [P2-025]

#### **U6G IBFD Antenna with Digital-Assisted Cancellation**

Honfji Fan, Yiqiu Liang, Zhiqiang Yu and Jianyi Zhou (Southeast University, China)

## [P2-026]

# Design of Reconfigurable Transmitarray Antenna Element with High-Pass Filtering Characteristics

Qian Song, Donglin Su and Zi Yang Wang (Beihang University, China)

## [P2-027]

# Extrapolation of Radiation Pattern with Neural Networks: a Paradigm with LSTM-Based and Generative Adversarial Networks

Lida Kouhalvandi (Dogus University, Turkey); Mohammad Alibakhshikenari (University of Rome Tor Vergata, Italy); Hassan Zakeri (Amirkabir University of Technology, Iran); Ladislau Matekovits (Politecnico di Torino, Italy); Serdar Ozoguz (Istanbul technical University, Turkey); Takfarinas Saber (National University of Ireland Galway, Ireland); Ernesto Limiti (University of Rome Tor Vergata, Italy)



## [P2-028]

#### High-Isolation Nano-Antenna Design for Terahertz Full-Duplex Communication

Durga Prasad Purbey (Indian Institute of Technology Kharagpur, India); Sandip Ghosal (National Institute of Technology Rourkela, India); Arijit De (Indian Institute of Technology Kharagpur, India)

## [P2-029]

# Design of a Narrow–Wall Slotted Waveguide Array Antenna with Corporate Feed in the 150 GHz Band

Ryouske Sakurai, Jiro Hirokawa and Takashi Tomura (Institute of Science Tokyo, Japan); Minoru Inomata (NTT, Japan); Wataru Yamada (NTT Corporation, Japan)

## [P2-030]

# Liquid-Based Polarization-Reconfigurable Antenna Using Gravitational Method for WLAN Applications

Thanatcha Satitchantrakul (King Mongkut's University of Technology North Bangkok, Thailand); Niklas Takanen and Ping Jack Soh (University of Oulu, Finland)

## [P2-031]

## Near-Field Mutual Coupling Assessment in Co-Platform Antennas Using a Modified Friis Transmission Formula

Yunru Zhao (Beihang University, China); Peng Liu (AVIC Research Institute for Special Structures of Aeronautical Composites, China); Qi Wu (Beihang University, China)

## [P2-032]

## Reduction of Sidelobe Level in Reflectarray Antennas Using LCMV Algorithm

Hogun Lee and Jeong-Hae Lee (Hongik University, Korea (South))

#### [P2-033]

#### Superdirectivity Extends the Scanning Range of Antenna Arrays

Yinglu Wan (Guangxi University, China)



## [P2-034]

Mechanical Rotary Metasurface for Wide-Beam Scanning and Polarization Conversion

Chhungheng Lor and Sungjoon Lim (Chung-Ang University, Korea (South))

## [P2-035]

Characterization of Sub-THz Multipath Propagation in Urban Environments via High-Resolution Parameter Estimation

Jae-Joon Park, Myung-Don Kim, Juyul Lee and Byung Su Kang (ETRI, Korea (South))

#### [P2-036]

Maximized Electrical near-Field Intensity from a Compact Dielectric Probe

Fatemeh Habibi (University of Stuttgart, Germany); Jan Hesselbarth (University of Stuttgart & IHF -- Institute of Radio Frequency Technology, Germany)

## [P2-037]

High-Efficiency Horizontal-Polarized Leaky-Wave Antenna Based on Mode-Modulation

Zhang Wen Cheng, Meng Wang and Hui Feng Ma (Southeast University, China)

#### [P2-038]

Two Types of Composite T-/ $\pi$ -Type Rhombic Unit Cell Structures for Topological Waveguides

Sho Toyomitsu, Tsutomu Nagayama, Seiji Fukushima and Toshio Watanabe (Kagoshima University, Japan)

#### [P2-039]

High-Performance X-Band Semi-Transparent Metamaterial Absorber Utilizing Flexible PDMS and Resistive Elements

Wahaj Abbas Awan, Domin Choi and Jaemin Lee (Chungbuk National University, Korea (South)); Niamat Hussain (University of Glasgow, United Kingdom (Great Britain)); Dongkyu Sim (Chungbuk National University, Korea (South)); Seonggyoon Park (Kongju National University, Korea (South)); Nam Kim (Chungbuk National University, Korea (South))



## [P2-040]

Source Reconstruction of Array Antenna Based on Physics Informed Neural Networks

Wonhyo Kim, Yeonjae Kim and Youngwook Kim (Sogang University, Korea (South))

## [P2-041]

Simulation and Experimental Analysis of AM-Modulated Signal Backscattered by on-Board HT

Da-Hyun Lee, Jae-Sung Choi, Jin-Seong Lee and Jae-Young Chung (Seoul National University of Science and Technology, Korea (South))

## [P2-042]

Impact of RX Parasitic Resistance on Power Transfer Efficiency in Coil-to-Coil Wireless Systems

Chanho An (Konkuk University & Konkuk, Korea (South)); Myeongjun Shin and Hyunchul Ku (Konkuk University, Korea (South))

## [P2-043]

Design of a Low-Loss Transmission Frequency Selective RIS with 1-Bit Reconfigurable Phase

Miao Li, Lijie Wu, Huidong Li, Jun Yan Dai and Qiang Cheng (Southeast University, China)

## [P2-044]

RCS Measurement and Modeling of Manned Electric Bicycle in the 77-81 GHz Band

Mengdi Wu, Zhengbo Jiang, Junping Zhu, Shangbing Qiao and Tong Liu (Southeast University, China)

#### [P2-045]

A Novel Dual-Polarized Endfire Phased Array Antenna for mmWave Mobile Terminal Applications

Liangying Li (Hefei University of Technology, China)

#### [P2-046]

Deep Learning-Enhanced FEM for Perforated Enclosures: CNN-Based Impedance Boundary Modeling

Hui Wang and Qiang Ren (Beihang University, China)



## [P2-047]

MINNs: MNA Informed Neural Networks for Efficient Uncertainty Quantification of Nonlinear Transmission Lines

Dyuti Basu, Aakanksha Verma, Avirup Dasgupta and Sourajeet Roy (IIT Roorkee, India)

#### [P2-048]

Non-Destructive Detection and Classification of Camel Milk Adulteration Using Microwave Reflection and Machine Learning

Dawiya Youssouf Hamadi (UOWD, United Arab Emirates); Abeer El Elkhouly and Mohd Fareq Abd Malek (University of Wollongong in Dubai, United Arab Emirates); Hasliza ARahim (Universiti Malaysia Perlis & Advanced Communication Engineering, Centre of Excellence (ACE), Malaysia)

## [P2-049]

Millimeter-Wave Antenna Featuring Polygonal Parasitic Patches with a Gain of 8,21 dB

Xin Jiang (Sharp Corparation, Japan); Takashi Nakano, Tazuko Kitazawa and Yukio Tamai (Sharp Corporation, Japan)

## [P2-050]

Mutual Coupling Reduction in Dual-Band MIMO Antenna Using DGS and SRR for Wi-Fi 7 Band Applications

Loveta Ramyhaidar Winaryo, Catur Apriono and Fitri Yuli Zulkifli (Universitas Indonesia, Indonesia)

## [P2-051]

Prediction of Directionally Dependent Electric Field in Elongated Rectangular Enclosures

J.Y. Choi (Korea Aerospace University, Korea (South))

#### [P2-052]

Antenna Factor Calibration of Optical Electric Field Sensor Using GTEM Cell

Yuma Otomo (Tohoku Gakuin University & Graduate School, Japan); Shinobu Ishigami and Ken Kawamata (Tohoku Gakuin University, Japan)



## [P2-053]

Enhancing Transparency and EMP Shielding Based on Low-E Glass Windows Using Thin Conductive Films for Civil and Military Applications

Manh Hai Tao, Tien Dat Nguyen and Chang Won Jung (Seoul National University of Science and Technology, Korea (South))

## [P2-054]

#### A 7-9GHz Reconfigurable Microstrip Bandpass Filter Using Defected Ground Structure

Runlong Li (University of Electronic Science and Technology of China, China)

#### [P2-055]

# A Method for Estimating Impedance of Floating Electrode Multi-Layered Ceramic Capacitors

Sanguk Lee and Jaewon Rhee (Korea Advanced Institute of Science and Technology, Korea (South)); Seunghun Ryu (Korea Advanced Institute Science and Technology (KAIST), Korea (South)); Seonghi Lee (Korea Advanced Institute of Science and Technology, Korea (South)); Hyunwoo Kim (Korea Advanced Institute of Science and Technology University, Korea (South)); Hongseok Kim and Seungyoung Ahn (Korea Advanced Institute of Science and Technology, Korea (South))

#### [P2-056]

#### Design of Compact SIW BPF Matching Network with Harmonic Suppression Capability

Palaystint Thorng (Jeonbuk National University, Korea (South)); Phanam Pech (Jeonbuk National University, Korea (South) & JIANT-IT Human Resource Development Center, Korea (South)); Suyeon Kim, Girdhari Chaudhary and Yongchae Jeong (Jeonbuk National University, Korea (South))

## [P2-057]

#### Novel Design of a Broadband Radio Wave Absorber Using Periodic Dielectric Cuboid Arrays

Yasunari Hashimoto (Aoyama Gakuin University, Japan); Yoshitoshi Maeda and Temma Sasaki (WICERA Co., Ltd., Japan); Ryosuke Suga (Aoyama Gakuin University, Japan)



## [P2-058]

## High Frequency Resistors Parasitic Reduction and Characterization in SiGe BiCMOS Processes

Festim Iseini (IHP – Leibniz-Institut für innovative Mikroelektronik, Germany); Andrea Malignaggi (IHP, Germany); Nicola Pelagalli (IHP – Leibniz Institute for High Performance Microelectronics, Germany); Falk Korndoerfer (IHP microelectronics, Germany); Corrado Carta (IHP – Leibniz Institut für Innovative Mikroelektronik, Germany & Technische Universität Berlin, Germany); Gerhard Kahmen (IHP Leibniz Institut für Innovative Mikroelektronik, Germany)

#### [P2-059]

## Capacitive Compensation for Low Amplitude and Phase Imbalances in mm-Wave Marchand Baluns

Volkan Erturk (IHP-Leibniz-Institut für innovative Mikroelektronik, Germany); Batuhan Sütbaş (IHP – Leibniz Institute for High Performance Microelectronics, Germany); Corrado Carta (IHP – Leibniz Institut für Innovative Mikroelektronik, Germany & Technische Universität Berlin, Germany)

## [P2-060]

#### Design of All Pole Multifunctional Filtering Power Divider in Microstrip Technology

Manoj Kumar and Gowrish Basavarajappa (Indian Institute of Technology Roorkee, India)

#### [P2-061]

Compact 5.8–15.8–GHz Marchand Balun with Narrow Notched Band Based on Three-Line Coupled Scheme for 6G Communication

Zihuan Chen, Jie Zhou and Xun Luo (University of Electronic Science and Technology of China, China)

#### [P2-062]

Millimeter-Wave BPFs Shielded Using Metal Layer Embedded in Multi-Layer Circuit Board for Q/V-Band Transceiver Module

Takumi Tomii (Tottori University, Japan); Tamotsu Nishino (Tohoku University, Japan); Takuto Akashi, Kiyoka Takemoto, Tadao Matsunaga and Sang-Seok Lee (Tottori University, Japan)



## [P2-063]

# A Novel Multifunctional Filtering Leaky Wave Antenna in Rectangular Waveguide Technology

Rushiraj Sunil Jawale and Gowrish Basavarajappa (Indian Institute of Technology Roorkee, India)

## [P2-064]

#### Multi-Level Characterization and Calibration of an eWLB Automotive Amplifier

Pascal Stadler (Ruhr-University Bochum, Germany); Nils Pohl (Ruhr-University Bochum & Fraunhofer FHR, Germany); Tobias T Braun (Ruhr University Bochum, Germany); Klaus Aufinger and Christian Geissler (Infineon Technologies AG, Germany)

## [P2-065]

## Ferrite-Free High-Power Balun for Differential Push-Pull Amplifiers in MRI/NMR Applications

Ouadie Touijer (Universität Erlangen-Nürnberg, Germany); Alexander Schönecker (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Jens Loeffler (Friedrich-Alexander-Universität Erlangen Nürnberg, Germany); Jan Philipp Wiedemann, Norman Franchi and Georg Fischer (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)

#### [P2-066]

Investigation of the Radiation Characteristics of Bent Circular Polymer Microwave Fibers for Distributed Antenna System Applications

Stefan Wögerbauer, Helmut Paulitsch and Michael Gadringer (Graz University of Technology, Austria)

#### [P2-067]

#### Design and Implementation of High-Speed Interfaces with TGV for 2,5D/3D Glass Interposer

Chae Suin (Korea Electronics Technology Institute, Korea (South) & Hanyang University, Korea (South)); Jaemyung Lim (Hanyang University, Korea (South)); Jeln Yu (Korea Electronic Technology Institute, Korea (South))

#### [P2-068]

#### Miniaturized PCB Embedded Low-Pass Filters for Wi-Fi 6E/7

Minseok Kim, Subin Kim, Seunghyup Han, JongWan Shim, Woosung Jang, Youngjoon Kim and Jeongnam Cheon (Samsung Electronics, Korea (South))



## [P2-069]

## A Wideband Filtering Power Divider with Integrated Bandpass Filters

Hong-Yu Chen and Ching-Wen Tang (National Chung Cheng University, Taiwan)

## [P2-070]

#### Compact Microwave Circuit Using Aerosol Jet Printing Method

Jiyeon Lee, Dal Ahn, Kye-Si Kwon and Hyeonsu Kim (Soonchunhyang University, Korea (South)); Sang-Min Han (Soonchunhyang, Korea (South)); Jongsik Lim (Soonchunhyang University, Korea (South))

## [P2-071]

# Multi-State Encoding for Robust Optimization of Pixelated Planar Bandpass Filters with Manufacturability

Woojun Lee (Virginia Tech, USA); Jungmin Lee (Virginia Polytechnic Institute and State University, USA); Jeffrey Walling (University of Utah, USA)

## [P2-072]

#### A Bandpass SIW Filter with Sharp Roll-off Rate and Wide Stopband

Shiqi Jiang, Yuwei Zhang and Jinping Xu (Southeast University, China)

#### [P2-073]

## HE11 Mode-Based Wireless Communication for a Hyperloop System Using a Dielectric-Lined Waveguide

JaeGyeong Shin (UNIST, Korea (South))

## [P2-074]

#### Dual-Frequency Dual Circularly Polarized Terminal Antennas for Satellite Communication

Yuehui Cui, Hao Fang and RongLin Li (South China University of Technology, China)

## [P2-075]

## High-Sensitivity Microfluidic Sensor with Serpentine-Patterned Microstrip Patch Antenna for Enhanced Dielectric Characterization

Raja Usman Tariq (Xi'an Jiaotong University, China); Xiong Chen (Xian Jiaotong University, China); Yongning He (Xi'an Jiaotong University, China)



#### [P2-076]

Analysis and EM Characterization of Birdcage RF Coils for Head MRI at 4.7T Using FEM Simulation

Sheikh Faisal Ahmad (Kyungpook National University & Institute of Advance Convergence Technology, Korea (South)); Hyun Deok Kim (Kyungpook National University, Korea (South))

## [P2-077]

Fresnel Lens Antenna with Smooth Phase Compensation in the 220 – 330 GHz Band Using Highly Cost-Effective Manufacturing Process

Alexis Goblot (Universite de Rennes, France); Olivier Lafond (Universite de Rennes 1, France); Mohamed Himdi (Université de Rennes, France & IETR, France)

## [P2-078]

An Automatic Measurement System and Dual-Network Framework for Programmable Metasurface Beamforming

Yingjuan Lu (Southeast University, China)

#### [P2-079]

An Efficient Training–Data Generation Approach for Building NN–Based Forward Model of Microstrip BPF

Ryota Maezaki and Masataka Ohira (Doshisha University, Japan); Rui Kuramochi and Zhewang Ma (Saitama University, Japan); Hiroyuki Deguchi (Doshisha University, Japan)

#### [P2-080]

## 14-GHz Butler Matrix-Based Reconfigurable Intelligent Surface

Sang Yun Han and Byung-Wook Min (Yonsei University, Korea (South))

## [P2-081]

## Planar Array Thinning by Genetic Algorithm with Quantum Selection

Gabriel Felipe Martinez, Alessandro Niccolai, Eleonora L. Zich and Riccardo Enrico Zich (Politecnico di Milano, Italy)

## [P2-082]

## A Study on Hidden Conformal Antennas for Smart Mobility Vehicles

Jun Choi, Sangpil Kang, Wonwhi Jin, Inho Jeon, Jeok Park, Hyunggeun Lee, Taeil Kim and Jinkyu Hwang (Acetechnologies, Korea (South))