Time (Tokyo)	Room A	Room B	Room C	Room D	Room E	Room F	Room G	Event hall
Monday, October 27								
14:00-17:00			WS1: *Workshop*	WS2: *Workshop*	WS3: *Workshop*	WS4: *Workshop*		
Tuesday, October 28								
09:00-09:30	2A1: *Opening Ceremony*							
09:30-10:10	2A2: *Plenary Talk 1*							
10:10-10:50	2A3: *Plenary Talk 2*							
11:10-11:50	2A4: *Plenary Talk 3*							
11:50-12:30	2A5: *Plenary Talk 4*							
13:30-15:10								Pos1: *Poster Session 1*
15:30-17:10	2A7: *Remote Sensing and Satellite Propagation*	2B7: *[OS27] Reconfigurable Intelligent Surfaces: Recent Developments and Applications*	2C7: *Recent Advances in CEM and Relevant Techniques*	2D7: *[OS08] HAPS, NTN and related Propagation*	2E7: *Broadband and Small Antennas*	2F7: *[OS14] Emerging Technologies in Transmitarray/Lens Antennas and RISs for Beyond 5G Systems*	2G7: *Novel Control Techniques for EM Waves and Circuits*	
Wednesday, October 29								
09:00-10:40	3A1: *[OS05] Propagation Channel Models and Measurement Methodologies for 6G Communication and Sensing*	3B1: *DOA/TOF Estimation, Localization, Sensing and Radar*	3C1: *[OS29] Recent Advances in Radar Technologies and Related Topics*	3D1: *[OS11] Antennas for 6G/Next Generation Communications*	3E1: *[OS13] Emergent Wireless Power Transmission Applications and Core Technologies*	3F1: *[OS23] IEEE AP-S and ISAP 2025 Young Professional Special Session*		
11:00-12:40	3A2: *Planar Antennas and Array antenna technology*	3B2: *RIS and Antenna Systems for Wireless Communications*	3C2: *[OS20] Reconfigurable Intelligent Surfaces, Metasurfaces*	3D2: *mmW/THz Propagation*	3E2: *[OS15] Technologies in implementation and deployment of mmWave*	3F2: *[OS23] IEEE AP-S and ISAP 2025 Young Professional Special Session*		
13:40-15:20								Pos2: *Poster Session 2*
15:40-17:20	3A4: *[OS04] Antenna Measurement Techniques Association (AMTA)*	3B4: *[OS19] Innovative antenna systems for the realization of integrated wireless technology*	3C4: *[OS22] Recent Advancement of Microwave, Millimeter Wave, and Terahertz Wave Circuits and Applications*	3D4: *[OS10] Advanced Techniques for Expanding Millimeter-Wave/Terahertz Network Coverage*	3E4: *[OS16] Advanced Antenna and RF Technologies for Satellite Communications and Remote Sensing (UNIST RRC Special*	3F4: *[OS23] IEEE AP-S and ISAP 2025 Young Professional Special Session*		
17:20-17:40								

						Session)		

Thursday, October 30

09:00-10:40	4A1: *Reflector, Reflectarray and Lens Antennas*	4B1: *[OS01] Advanced Antenna and EMC Measurement Technologies for Microwave and Millimeter Wave Systems*	4C1: *[OS09] Recent Advances and Applications of Metamaterials and Metasurfaces*	4D1: *[OS03] Underwater Wireless Technology Using Electromagnetic Waves*	4E1: *Millimeter-wave and Terahertz Antennas I*	4F1: *Part1: Technical session [OS25] Highlighting Research Achievements Beyond Gender*		
11:00-12:40	4A2: *Antenna Theory and Design*	4B2: *[OS01] Advanced Antenna and EMC Measurement Technologies for Microwave and Millimeter Wave Systems*	4C2: *[OS26] Electromagnetic field analysis and industry applications*	4D2: *[OS03] Underwater Wireless Technology Using Electromagnetic Waves*	4E2: *[OS12] Small and Low-Profile Antennas*	4F2: *Part2: D&I session "Sharing Ideas on Gender Innovation"*		
13:40-15:20								Pos3: *Poster Session 3*
15:40-17:20	4A4: *[OS34] Yagi-Uda Antenna 100th Anniversary of Birth Special Session*	4B4: *Wireless Power Transfer Technologies*	4C4: *Developments in Periodic Structures and Metasurfaces*	4D4: *ML and AI for AP Applications*	4E4: *[OS31] Evolution of Radio Technology Shaping 6G in Japan*	4F4: *[OS21] Analysis and Measurement for Reconfigurable Intelligent Surfaces (RIS)*		

Friday, October 31

09:00-10:40	5A1: *Smart and Reconfigurable Antennas*	5B1: *[OS06] Propagation and Modeling in ITU-R SG3*	5C1: *[OS24] Electromagnetic field theory*	5D1: *[OS18] Indoor and Outdoor Propagation*	5E1: *Small antenna and antenna measurement*	5F1: *[OS28] Advanced Techniques for EMC/EMI*		
11:00-12:40	5A2: *AP Related Topics for B5G and 6G*	5B2: *Metasurface technology*	5C2: *[OS02] Frontiers of Computational Electromagnetics*	5D2: *[OS30] Enhancing Radio Propagation Technologies Driven by Machine Learning*	5E2: *Reflector and Reflectarray Antennas*	5F2: *[OS28] Advanced Techniques for EMC/EMI*		
14:00-15:40	5A3: *RFID and Its Applications*	5B3: *Planar / Printed antenna and Arrays*	5C3: *Future Technologies for EM Waves and Circuits*	5D3: *[OS17] Simulation Analysis of Propagation*	5E3: *Millimeter wave and Terahertz antenna II*	5F3: *[OS07] HAPS mobile communication systems*		

Monday, October 27

Monday, October 27 14:00 - 17:00

WS1: Workshop

Room C

WS2: Workshop

Room D

WS3: Workshop

Room E

WS4: Workshop

Monday, October 27

Monday, October 27 14:00 - 17:00

WS1: Workshop

Room C

WS2: Workshop

Room D

WS3: Workshop

Room E

WS4: Workshop

Room F

Tuesday, October 28

Tuesday, October 28 9:00 - 9:30

2A1: Opening Ceremony

Room A

Tuesday, October 28 9:30 - 10:10

2A2: Plenary Talk 1

Speaker: Motoyuki Sato, Tohoku University
Title: Ground Penetrating Radar for Humanitarian Demining in Ukraine

Room A

Tuesday, October 28 10:10 - 10:50

2A3: Plenary Talk 2

Speaker: Qing Huo Liu, Eastern Institute of Tech
Title: Multiscale Computational Electromagnetics for Antennas and Propagation

Room A

Tuesday, October 28 11:10 - 11:50

2A4: Plenary Talk 3

Speaker: Seong-Ook Park, KAIST
Title: A review of Antenna System Technologies for Small Satellite

Room A

Tuesday, October 28 11:50 - 12:30

2A5: Plenary Talk 4

Speaker: Oscar Quevedo-Teruel, KTH Royal Institute of Technology
Title: Physical Optics for Modelling Antennas: Merging Accuracy with Simplicit

Room A

Tuesday, October 28 13:30 - 15:10

Pos1: Poster Session 1

Room: Event hall

Pos1.1 ***A Low-Profile Shared-Aperture Antenna Array with Self-Descattering and Self-Decoupling Capabilities***
Yi He (University of Technology Sydney (UTS), Australia & University of Technology Sydney, Australia); Shaodong Wang (Xidian University,

China); Gengming Wei and Can Ding (University of Technology Sydney (UTS), Australia); Y. Jay Guo (University of Technology Sydney, Australia)

Pos1.2 ***Accuracy Enhanced TDOA-Based Ablation Zone Imaging for Microwave Breast Cancer Treatment***
Satoru Nishimura and Shouhei Kidera (University of Electro-Communications, Japan)

Pos1.3 ***Survivor Detection Method in Low-Visibility Indoor Environment with Millimeter Wave Radar Imaging and Analysis***
Toshiki Tateoka (The University of Electro-Communications, Japan); Shouhei Kidera (University of Electro-Communications, Japan)

Pos1.4 ***A Full-Metal, Electrically Small, Linearly Polarized Huygens Dipole Antenna with High Polarization Purity and High Efficiency***
Jiongjian Fang and Wei Lin (The Hong Kong Polytechnic University, Hong Kong)

Pos1.5 ***A Wideband Millimeter-Wave HDI-Based Antenna-in-Package Design and Its GSG-Probe-Free Measurement***
Yuxin Zhang and Hang Wong (City University of Hong Kong, Hong Kong); Qingsha Cheng (Southern University of Science and Technology, Shenzhen, China)

Pos1.6 ***Grating Lobe Suppression with Mixed Skewed and Rectangular Grids for Single-Layer 15/28-GHz Band Dual-Beam Reflectarray Antenna***
Keita Hamada, Masataka Ohira and Hiroyuki Deguchi (Doshisha University, Japan)

Pos1.7 ***Numerical Analysis of Single-Patch Beam-Steering Antenna with Orthogonal Monopulse Excitation***
Syoichi Soejima, Eisuke Nishiyama and Ichihiko Toyoda (Saga University, Japan)

Pos1.8 ***Design of a Dual-Polarized Crossing Perpendicular-Corporate-Feed Waveguide 2×2-Slot Sub-Array Antenna***
Hinata Ishikawa, Jiro Hirokawa and Takashi Tomura (Institute of Science Tokyo, Japan)

Pos1.9 ***Improvement of anti-Eavesdropping Performance of Spatially Selective Modulation System Using Artificial Noise Transmission***
Keita Shigaki, Sasuke Daikoku, Hisato Iwai and Shinsuke Ibi (Doshisha University, Japan)

Pos1.10 ***Ray-Tracing Physical-Optics Model for Dielectric Lens Antennas***
Núria Flores-Espinosa and Pilar Castillo-Tapia (KTH Royal Institute of Technology, Sweden); Francisco Mesa (University of Seville, Spain); Oscar Quevedo-Teruel (KTH Royal Institute of Technology, Sweden)

Pos1.11 ***Unconditionally Stable Non-Uniform Grids LCDI-FDTD Method Including Lumped Elements***
Guilin Hou (Anhui University, China); Guoda Xie (Anhui University, unknown); Chao Wang, Hang Yu, Yingsong Li and Zhixiang Huang (Anhui University, China)

Pos1.12 ***RCS and Angular Width of Two Trihedral Corner Reflectors Separated by a Distance***
Linran Xie (National University of Singapore, Singapore); Koen Mouthaan (NUS, Singapore)

Pos1.13 ***High-Resolution Imaging for Millimeter-Wave Automotive Radar with Doppler Velocity Decomposition and Synthetic Aperture Process***
Keidai Ishioka (The University of Electro-Communications, Japan); Shouhei Kidera (University of Electro-Communications, Japan)

Pos1.14 ***COSY Antenna Using Series Resonant Circuit for 2.4 GHz/5 GHz WLAN Applications***
Suguru Kojima (Panasonic Corporation, Japan)

Pos1.15 ***A Compact Broadband Polarization-Reconfigurable Circularly Polarized MIMO Antenna***
Mingxing Ren (Guilin University of Electronic Technology, China)

Pos1.16 ***Improvement of Horn Antenna Gain Measurement System Up to 40 GHz Using Single-Antenna Method***
Yuanfeng She (National Institute of Advanced Industrial Science and Technology, Japan); Michitaka Ameya (AIST, Japan)

Pos1.17 ***Double-Folded SIW Cavity-Backed Self-Isolated Four-Port Filtering MIMO Antenna***
Xin Zhou and Kam-weng Tam (University of Macau, Macao); Gang Zhang (Nanjing Normal University, China); Qiwei Chen and Junxiao Liu (Macau Wujing Technology Co Ltd, Macao); Hou-Pan Sio (Macao Science Center, Macao)

Pos1.18 ***Adaptive Radar Cross Section Reduction via Active Nulling Using LCMV Beamforming***
Jaehyeon Shin and Hyunsoo Lee (Kumoh National Institute of Technology, Korea (South)); Youngwan Kim (LIG Nex1, Korea (South)); Tae Heung Lim (Kumoh National Institute of Technology, Korea (South))

Pos1.19 ***A Low-Loss 8 GHz CMOS SPDT Switch for Upper-Mid Band Beamforming Applications***
Hui Dong Lee (Electonics and Telecommunications Research Institute, Korea (South)); Sunwoo Kong (Electronics and Telecommunications Research Institute, Korea (South)); Seunghun Wang (Electonics and Telecommunications Research Institute, Korea (South)); Bonghyuk Park (ETRI, Korea (South))

Pos1.20 ***Dual-Mode Independent Beam Steering Using Radiation-Selective Boundaries in a Unified Identical Aperture Phased Array***
Jeonghyo Lee (POSTECH, Korea (South)); Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

Pos1.21 ***A 3D-Printed Planar Luneburg Lens with Beam Enhancement via Axially Added Refractive Index Tapering***
Nannan Wang (Harbin Institude of Technology, China); Yizhi Zhang (Harbin Institute of Technolog, China); Pengcheng Wang and Jingjing Liu (Harbin Institute of Technology, China)

Pos1.22 ***Gain Enhancement of a Waveguide-Fed Wideband Sidewall-Shorted Microstrip Antenna for D-Band Applications***
Ta-Yeh Lin, Shuw-Guann Lin, Yin-Cheng Chang, Chaoping Hsieh and Da-Chiang Chang (Taiwan Semiconductor Research Institute, National Institutes of Applied Research, Taiwan)

Pos1.23 ***Dual Circular-Polarized Wide-Angle Scanning Phased Array Based on Tri-Polarized Antenna***
Xujing Yu, Yao Yang, Shigang Zhou and Jian-ying Li (Northwestern Polytechnical University, China)

Pos1.24 ***Basic Study on a Novel Mechanical Beam Steering Low-Profile System with a Transmitarray Antenna***
Gen Nakayama and Takashi Tomura (Institute of Science Tokyo, Japan)

Pos1.25 ***A Low-Profile Wideband Magnetoelectric Dipole Antenna Using Microstrip Feed***
Haonan Zhang, Qingxin Guo, Huachen Zhao and Zengrui Li (Communication University of China, China)

Pos1.26 ***A Compact Omnidirectional Antenna Array for Integrated Sensing and Communication (ISAC)***

Hexiang Kong, Xi Chen and Xu Lin (Xidian University, China)

Pos1.27 ***Wideband Polarization Converter Implemented with Miniaturized Metasurface***
Cho Hilary Scott Nkimbeng, Heesu Wang and Ikmo Park (Ajou University, Korea (South))

Pos1.28 ***Polarization Conversion Metasurface with a Reflection Window and Dual-Band RCS Reduction***
Huachen Zhao, Zengrui Li, Haonan Zhang, Qingxin Guo, Jinbo Liu and Yajin Wang (Communication University of China, China)

Pos1.29 ***Design of Radomes with Flat-Top Beam for Satellite Communication Using Phase Shifting Surface***
Sung-Nien Hsieh (National Taiwan University of Science and Technology, Taiwan); Jyun-Ruei Su (Chunghwa Telecom, Taiwan)

Pos1.30 ***Non-Ground-Reliant Redirecting Metasurfaces with Endfire Wave Bending***
Mina Feizi, Shu-Lin Chen, Peiyuan Qin and Y. Jay Guo (University of Technology Sydney, Australia)

Pos1.31 ***High-Performance Antenna for Ear-Mounted Devices***
Ryoya Kishi and Toru Fukasawa (Kanazawa Institute of Technology, Japan)

Pos1.32 ***Accurate Estimation of Tree Attenuation Based on Quantification of Leaf Area and Branch Volume***
Yoshiki Nakanishi, Shigeo Gotoh, Hisato Iwai and Shinsuke Ibi (Doshisha University, Japan)

Pos1.33 ***Experimental Study of V2X Communication Area Construction in THz Band Using Cosecant Beam Pattern***
Toshiki Hozen, Ayumu Yabuki and Kazuma Tomimoto (Softbank Corp., Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan)

Pos1.34 ***Robust Channel Reconstruction for Electronic Phantoms Under Radar Misalignment***
Haruki Shibasaki, Yuto Ozawa, Kentaro Murata and Naoki Honma (Iwate University, Japan)

Pos1.35 ***Over-the-Air Testing with Reconfigurable Electronic Phantom for Wideband Radars***
Motoki Narusawa, Kentaro Murata and Naoki Honma (Iwate University, Japan)

Pos1.36 ***An Azimuthal FrFT Beamforming for Automotive Radar Applications in a Single Snapshot***
Yonghwi Kwon, Kanghyeok Seo and Chul Ki Kim (Soongsil University, Korea (South))

Pos1.37 ***Ka-Band Broadband, RCS-Reduced Transmitarray Using Polarization Converter Without Resistors***
Po-Yu Chan, Wei-Lun Lu and Tzyh-Ghuang Ma (National Taiwan University of Science and Technology, Taiwan)

Pos1.38 ***Performance Analysis of an I-Shaped Slots Array Antenna for mmWave 5G Communications***
Moynul Hasan Akash and Masato Saito (University of the Ryukyus, Japan)

Pos1.39 ***Dual-Polarized Tapered Slot Antenna for Multi-Probe Measurement Systems***
Genki Sato, Koichi Ichige and Makoto Sano (Yokohama National University, Japan)

Pos1.40 ***Beamforming Limitations for Distributed Antenna Arrays Under Platform Positioning Deviations***
Giulio Orlando (Kongsberg NanoAvionics, UAB, Lithuania); George Goussetis (Heriot-Watt University, United Kingdom (Great Britain)); Thomas Delamotte (Bundeswehr University Munich, Germany); Hervé Legay (Thalès Alenia Space, France)

Pos1.41 ***Wideband Dual-Polarized Large-Curvature Elliptic Cylindrical Conformal Phase Array***
Xiangbo Wang, Wei Hu, Zhan Chen and Tao Hong (Xidian University, China)

Pos1.42 ***Active Planar Antenna Design for CHARTS Array***
Albert Wai Kit Lau, Victoria Allder, Sophia Da Costa, Sean V Hum, Keith Vanderlinde and Juan Mena-Parra (University of Toronto, Canada)

Pos1.43 ***Design of a Dual-Band and Wideband Dual-Ring Microstrip Antenna Fed by an L-Probe***
Yuta Ozaki, Kenta Kariya and Yuichi Kimura (Saitama University, Japan)

Pos1.44 ***Design of a Single-Layer Dual-Polarized Dual-Band and Wideband Microstrip Antenna Fed by Two L-Probes with Separated Outer Elements***
Tomoki Matsushima and Yuichi Kimura (Saitama University, Japan)

Pos1.45 ***Design of a Single-Layer Dual-Polarized Dual-Band and Wideband Ring Microstrip Antenna Fed by Two L-Probes with an Inner Folded Patch***
Terutoshi Goto and Yuichi Kimura (Saitama University, Japan)

Pos1.46 ***High-Gain Design of Split-Beam Multilayer Antenna for Shipborne Applications***
Min Cheol Paek (National Korea Maritime & Ocean University, Korea (South)); You Seok Yeoh (Korea Maritime & Ocean University, Korea (South)); Seong Been Jang and SeungJun Kim (National Korea Maritime & Ocean University, Korea (South)); Kyeong-sik Min (Korea Maritime and Ocean University, Korea (South))

Pos1.47 ***A Circular Polarized Waveguide Antenna for OTA Production Testing in 5G-FR2 Band***
Jose Moreira (Advantest Europe GmbH, Germany); Sergey Churkin (Radiogigabit, Armenia)

Pos1.48 ***An Ultra-Low Profile Ultra-Wideband Dual-Polarization 1-D Tightly Coupled Array Antenna***
Zhiya Zhang, Tong Wu and Shaoli Zuo (Xi'dian University, China)

Pos1.49 ***A Dual-Band Dual-Polarized Antenna Array with Improved Front-to-Back Ratio***
Chao Wu (Harbin Institute of Technology, China); Shuang Qiu (University of Macau, China); Jinghui Qiu (Harbin Institute of Technology, China); Leonid Dubrov (China)

Pos1.50 ***Compact Multiband Antenna Using Slotted Metal Case and Internal Folded Dipole Element***
Phung Quang Quan (Le Quy Don Technical University, Vietnam); Atsushi Takei, Mari Takeda and Atsushi Yamamoto (Panasonic Corporation, Japan); Tetsuya Hishikawa (Panasonic, Japan); Hiroshi Sato (Panasonic Corporation, Japan); Yoshio Koyanagi (Panasonic, Japan); Hiroshi Hashiguchi (National Defense Academy, Japan); Hisashi Morishita (Japan)

Pos1.51 ***Flexible Metasurface-Enabled Broadband Circularly Polarized Antenna for GPS Applications***
Zhirui Li and Mohammad Ameen (National University of Singapore, Singapore); Koen Mouthaan (NUS, Singapore)

Pos1.52 ***On-Antenna Power Combining Dual-Band and Dual-Polarized Phased Array Antenna Module for Satellite Communication***
Bumhyun Kim (Pohang University of Science and Technology (POSTECH), Korea (South)); Sirous Bahrami and Donggeun An (Pohang University

of Science and Technology, Korea (South)); Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

Pos1.53 ***On-Vehicle Integration and Experimental Validation of a Glass-Embedded Antenna***

Soomin Kim, Dongseop Lee and Bumhyun Kim (Pohang University of Science and Technology (POSTECH), Korea (South)); Sangjin Park, Seongdae Cho, Kyungmin Kim and Minkyung Kim (KCC Glass Corporation, Korea (South)); Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

Pos1.54 ***A Low-Profile Filtering Transmissive Metasurface Based on a Novel Topology***

Ruihua Liu and Xue Ren (Shenzhen University, China)

Pos1.55 ***An Electrically Small Dual-Band Circularly Polarized Antenna with a High Aspect Ratio***

Phuong Linh Hoang and Gangil Byun (Ulsan National Institute of Science and Technology (UNIST), Korea (South)); Anthony Grbic (University of Michigan, Ann Arbor, USA)

Pos1.56 ***Integrated Sensing and Communication in the Terahertz Band Enabled by Photomixing Using a High-Speed Wavelength Tunable Laser***

Ryota Kaide, Shenghong Ye, Yiqing Wang and Yuya Mikami (Kyushu University, Japan); Yuta Ueda (NTT, Japan); Kazutoshi Kato (Kyushu University, Japan)

Pos1.57 ***Lossy Compression Technique for Synthetic Aperture Radar Data Using Sparse Reconstruction***

Masanori Gocho (National Institute of Information and Communications Technology, Japan)

Pos1.58 ***Salinity-Driven Variability of Ground-Wave Propagation in the Western Baltic Sea***

Niklas Hehenkamp, Filippo Giacomo Rizzi and Lars Grundhöfer (Deutsches Zentrum Für Luft- Und Raumfahrt, Germany); Stefan Gewies (German Aerospace Center, Germany)

Pos1.59 ***A Method for Detecting Sporadic E-Layer Propagation at Single Observation Point Based on Frequency Analysis of VHF Signal Strength***

Naruhiko Ueda, Makoto Kobayashi, Shunpei Yamaguchi, Koichi Shin and Masahiro Nishi (Hiroshima City University, Japan)

Pos1.60 ***On the DOA Estimation Accuracy of E-Plane and H-Plane Array Antennas***

Ryo Ijichi, Ryuichiro Kataoka and Koichi Ichige (Yokohama National University, Japan); Shota Kunikata, Hiroshi Nishida and Takahiro Kinoshita (Murata Manufacturing Co. Ltd., Japan)

Pos1.61 ***A Novel Magnetic Coupler Tracking the Maximum Coupling Coefficient for Wireless Power Transfer***

Sihui Hao, Chunyan Xiao, Hao Wang and Bohan Yang (Beihang University, China)

Pos1.62 ***A Simple Method for Measuring Radiated Emission from Wire-Harnesses Using Transfer Functions***

Tsubasa Suto (Tokyo Metropolitan Industrial Technology Research Institute); Takuji Arima (Tokyo University of Agriculture and Technology, Japan); Teru Obata and Hiroyasu Sano (Tokyo Metropolitan Industrial Technology Research Institute, Japan)

Pos1.63 ***Evaluation of GPS-Based Synchronization for Distributed Antenna Networks***

Koki Hirai and Minseok Kim (Niigata University, Japan)

Pos1.64 ***Preliminary Study on Aircraft Signal Distortion in Airport Area for Localization***

Lizardo A. Arias (Institute of Science Tokyo, Japan); Junichi Naganawa (Electronic Navigation Research Institute, Japan); Nopphon Keerativoranan and Jun-ichi Takada (Institute of Science Tokyo, Japan)

Pos1.65 ***Performance Improvement of Device-Free Localization Using Bayesian Optimization***

Gesi Teng (Nigata University, Japan); Minseok Kim (Niigata University, Japan)

Pos1.66 ***Three-Dimensional Inverse Scattering Based Quantitative Imaging for Microwave Non-Destructive Road Inspection***

Hiroshi Inoue (The University of Electro-Communications, Japan); Shouhei Kidera (University of Electro-Communications, Japan)

Pos1.67 ***Ku-Band Reconfigurable Planar Bandpass Filter with High Frequency Selectivity Based on Two Sideband Transmission Zeros***

Hong Bin Wang (UESTC, China); XinYang Ling (University of Electronic Science and Technology of China, China); Yu Jian Cheng (UESTC, China)

Pos1.68 ***Silicon-Based V-Band Circularly Polarized Antenna***

Zeyuan Chen (NorthwesternPolytechnicalUniversity, China); Xilong Lu (Yangtze River Delta Research Institute, Northwestern Polytechnical University, China); Bokai Wen, Xueyang Fang, Yuehao Guo and Jian-ying Li (Northwestern Polytechnical University, China)

Pos1.69 ***An Ultra-Wideband Magnetoelectric Dipole Antenna with HDI Technology***

Pei Gan (The Institute of Microelectronics of the Chinese Academy of Sciences, China); Yunyan Zhou, Gang Song, Jun Li, Meiying Su and Xiaomeng Wu (Institute of Mircoelecronics of the Chinese Academy of Sciences, China); Qidong Wang (Institute of Microelectronics of Chinese Academy of Sciences, China)

Pos1.70 ***A Composite Antenna Consisting of an Omni-Directional Top-Loaded Antenna and a Bidirectional Loop Array***

Takashi Yanagi, Yasuhiro Nishioka, Satoshi Yamaguchi and Toru Takahashi (Mitsubishi Electric Corporation, Japan)

Pos1.71 ***Equivalent Simulation of Passive Millimeter-Wave Imaging in Observation Range Domain***

Yan Fang and Yayun Cheng (Harbin Institute of Technology, China); Huimin Xiong (Harbin Institute of Technology University, China & Harbin Institute of Technology, China); Jinghui Qiu (Harbin Institute of Technology, China)

Pos1.72 ***Impact of Irregular Array Layouts on Beamforming Metrics in ZF Massive MIMO***

Noud Kanters (University of Twente, The Netherlands); Andrés Alayón Glazunov (Linköping University, Sweden)

Pos1.73 ***An Stretchable Receiving Coils with Integrated Flexible Elements***

Bo-Wei Wang, Chia-Hung Chang, Chien-Chung Shih, Shi-Ting Lu and Yi-Wei Xu (National Yunlin University of Science and Technology, Taiwan)

Pos1.74 ***Fundamental Study on Electromagnetic Plane Wave Scattering by a Thick Slit and a Rectangular Trough on the Back Side of a Conducting Plate***

Ryoichi Sato (Niigata University, Japan); Hiroshi Shirai (Chuo University, Japan)

Pos1.75 ***A 3.5-GHz CMOS Power Amplifier for Wireless Communication Applications***

Yu-Hsin Chang and Yi-Cheng Tong (National Formosa University, Taiwan)

Pos1.76 ***Slotted Waveguide Ka-Band Antenna Fed by a Novel Double Ridge to Single Ridge E-Plane T-Junction***
Alicja Schreiber (German Aerospace Center, Germany)

Pos1.77 ***Design of Adjacent Metal Structure for Loop-Shaped Antennas***
Yukio Kaneko, Takashi Kawamura and Takanori Okamura (Sony Corporation, Japan)

Pos1.78 ***Theoretical Proof of the Equivalence of LLS-2 and LLS-3 in TOA Localization***
Hiroki Komiyama (Meiji, University, Japan); Takeshi Amishima (Meiji University, Japan)

Pos1.79 ***Polyester-Bamboo Composite Boards Enhanced with Graphene Oxide as Microwave Absorber in X-Band Applications***
Tuan Mohamad Farhan Tuan Mohd Marzuki, Huda A Majid, Nadirul Hasraf Mat Nayan and Fahmiruddin Esa (Universiti Tun Hussein Onn Malaysia, Malaysia); Muzammil Jusoh (Universiti Malaysia Perlis, Malaysia); Osman Bin Ayop (Universiti Teknologi Malaysia, Malaysia); Mohd Syahir Anwar Hamzah (Universiti Tun Hussein Onn Malaysia, Malaysia); Hilman Harun and Abd Rahim Mat Sidek (Mindmatics Sdn Bhd, Malaysia)

Pos1.80 ***Generating Multiple Angular Momentum Vortex Beams Using an Artificial Metasurface***
Jiakai Zhang, JiaHui Fu, Dengshuang Yi and Yiding Liu (Harbin Institute of Technology, China); Yizhi Zhang (Harbin Institute of Technolog, China); Wentao Liang and Kuang Zhang (Harbin Institute of Technology, China)

Pos1.81 ***Modeling for Radio Propagation Estimation: a VAE-Based Feature Analysis***
Kosuke Nakamitsu and Miyuki Hirose (Kyushu Institute of Technology, Japan); Satoshi Iwasaki and Kenshi Horihata (Kozo Keikaku Engineering Inc., Japan)

Pos1.82 ***Respiration Monitoring Based on Two-Wave Model Considering Body Movement by Using mm-Wave MIMO FM-CW Radar***
Mie Mle Ko and Toshifumi Moriyama (Nagasaki University, Japan)

Pos1.83 ***A Design of a DAC Capacitor Array with High Linearity and Low Power Consumption Charge Redistribution***
Hua Fan (University of Electronic Science and Technology of China, China)

Pos1.84 ***A 1-Watt Rectenna Prototype for Wireless Power Charging of Lunar Robots***
Anil Sejal Jain (Tohoku University, Japan); Hiroyasu Sato (Tohouku University, Japan); Shreya Santra (Tohoku University, Japan); Kazuya Yoshida (Space Robotics Laboratory, Tohoku University, Japan); Qiang Chen (Tohoku University, Japan)

Pos1.85 ***Microstrip Resonator Performance Testing for Diabetes Classification Using Artificial Neural Network and K-Nearest Neighbor Methods***
Yusnita Rahayu, Irsan Taufik Ali and Aris Setiawan (Universitas Riau, Indonesia)

Tuesday, October 28 15:30 - 17:10

2A7: Remote Sensing and Satellite Propagation

Room A

Chairs: Shunichi Futatsumori (Electronic Navigation Research Institute, Japan), Yasuyuki Maekawa (Osaka Electro-Communication University, Japan)

15:30 ***Introduction of PALSAR Series ~Development of SAR Antenna~***
Masanobu Shibata, Shusuke Ota, Shohei Nakamura and Yu Okada (Mitsubishi Electric Corporation, Japan); Keisho Ito, Takeshi Motohka and Yukihiro Kankaku (Japan Aerospace Exploration Agency, Japan)
(Invited Paper)

16:10 ***Preliminary Analysis of the Impact of Rain Attenuation Around Reference Ground Station Using One-Minute Rainfall Data***
Peeramed Chodkaveekityada and Thanyaporn Supasirasatkul (King Mongkut's Institute of Technology Ladkrabang, Thailand)

16:30 ***A Study on the Mean Canting Angle of Raindrops in Ka-Band Satellite Communications Links***
Yasuyuki Maekawa and Yoshiaki Shibagaki (Osaka Electro-Communication University, Japan)

16:50 ***Big Data Enhancement of R0.01 Reliability for Rain Attenuation Model Optimization in Thailand***
Peeramed Chodkaveekityada and Wetchaphat Pa-In (King Mongkut's Institute of Technology Ladkrabang, Thailand)

2B7: [OS27] Reconfigurable Intelligent Surfaces: Recent Developments and Applications

Room B

Chairs: Mohsen Khalily (University of Surrey & 5G Innovation Centre, Institute for Communication Systems (ICS), United Kingdom (Great Britain)), Okan Yurduseven (Queen's University Belfast, United Kingdom (Great Britain))

15:30 ***Hybrid RIS Aided Wireless Communications***
Nhan Nguyen and Markku Juntti (University of Oulu, Finland)

15:50 ***Programmable Metasurfaces for Computational DoA Estimation: Experimental Validation***
Okan Yurduseven, María García Fernández and Guillermo Alvarez Narciandi (Queen's University Belfast, United Kingdom (Great Britain)); Mohsen Khalily (University of Surrey & 5G Innovation Centre, Institute for Communication Systems (ICS), United Kingdom (Great Britain)); Amir Masoud Molaei (Queen's University Belfast, United Kingdom (Great Britain))

16:10 ***Channel Measurements for Indoor and Outdoor Reconfigurable Intelligent Surface (RIS)-Assisted Links at 3.5 GHz***
Demos Serghiou, Ali Araghi and Maryam Khodadadi (University of Surrey, United Kingdom (Great Britain)); Okan Yurduseven (Queen's University Belfast, United Kingdom (Great Britain)); Mohsen Khalily (University of Surrey & 5G Innovation Centre, Institute for Communication Systems (ICS), United Kingdom (Great Britain)); Rahim Tafazolli (University of Surrey, United Kingdom (Great Britain))

16:30 ***Physical Properties of Liquid Crystals in GHz Band***
Toru Fujisawa (Tohoku University, Japan)

16:50 ***Generative Adversarial Network-Enabled Inverse Design of Multifunctional Metasurfaces***

Xiaosong Liu, Xianbo Cao, Tao Hong and Wen Jiang (Xidian University, China)

2C7: Recent Advances in CEM and Relevant Techniques

Room C

Chair: Ryo Natsuaki (The University of Tokyo, Japan)

15:30 ***Ray-Tracing and Physical-Optics Model for Multibeam Array Antennas Combined with a Dielectric Lens***

Hairu Wang and Mingzheng Chen (KTH Royal Institute of Technology, Sweden); Francisco Mesa (University of Seville, Spain); Oscar Quevedo-Teruel (KTH Royal Institute of Technology, Sweden)

15:50 ***Radiation Properties of Two-Dimensional Straight Photonic Crystal Waveguide with Air-Hole Array Coupled to Dielectric Slab Waveguides***

Masahiro Tanaka (Gifu University, Japan)

16:10 ***Calculation of Surface Impedances Using Method of Moments***

Alexander Gausmann, Lukas Warkentin and Dirk Manteuffel (Leibniz University Hannover, Germany)

16:30 ***Characteristic Modes of Periodic Structures in Stratified Media Using the Method of Moments***

Lukas Warkentin (Leibniz University Hannover, Germany); Adrian Mrochen (Leibniz Universität Hannover, Germany); Dirk Manteuffel (University of Hannover, Germany)

16:50 ***PINNs-Driven Meshless Electric Field Simulation of Striplines***

Mubashra Nabi (University of Southern Denmark, Denmark); Mohamed Kheir (University of Southern Denmark (SDU), Denmark); Thomas Ebel (CIE SDU, Denmark)

2D7: [OS08] HAPS, NTN and related Propagation

Room D

Chairs: Akihiro Sato (Softbank Corp., Japan), Hajime Suzuki (CSIRO, Australia)

15:30 ***Enhancing O2I Path Loss Prediction Using Compound Power Modeling***

Young Chul Lee (Mokpo National Maritime University, Korea (South)); Khairunnisa Aziding (International Islamic University Malaysia); Chul Woo Byeon (Dankook University)

15:50 ***A Study of Arrival Angle Characteristics on the Mobile Station in Vegetation Areas for High Base Station Environment***

Akihiro Sato, Sho Kimura and Hideki Omote (Softbank Corp., Japan)

16:10 ***Rain Resilience of MIMO Ground Stations for LEO Constellations***

Oscar Martinez (Thales Alenia Space, France); Thomas Delamotte (Bundeswehr University Munich, Germany); Hervé Legay (Thalès Alenia Space, France); Andreas Knopp (Bundeswehr University Munich, Germany)

16:30 ***5 GHz Band Unmanned Aerial Vehicle-Based Virtual Array Channel Sounding in Indoor and Outdoor Environments***

Kentaro Saito and Kensei Ishizuka (Tottori University, Japan); Sora Kojima (Tokyo Denki University, Japan)

16:50 ***Extending Statistical Clutter Loss Model for HAPS Propagation***

Hajime Suzuki (CSIRO, Australia)

2E7: Broadband and Small Antennas

Room E

Chairs: Ichiro Oshima (Denki Kogyo Co., Ltd., Japan), Kunio Sakakibara (Nagoya Institute of Technology, Japan)

15:30 ***Design of Broadband Waveguide Transition to Back-Short-SIW Through Dielectric Cavity in Multi-Layer Substrate***

Kunio Sakakibara, Taiga Sugimoto, Azuki Iwamoto, Kenta Nishimura, Yoshiki Sugimoto and Nobuyoshi Kikuma (Nagoya Institute of Technology, Japan)

15:50 ***Dual-Polarized Flexible Antenna Using Closely Arranged Staircase-Shape Trapezoidal Patches***

Mohammad Ameen (National University of Singapore, Singapore); Koen Mouthaan (NUS, Singapore)

16:10 ***Design of Tightly Coupled Dipole Array with Resistor-Loaded Shorting Pins***

Takashi Uno, Takashi Maruyama, Tai Tanaka and Toru Takahashi (Mitsubishi Electric Corporation, Japan)

16:30 ***Bandwidth Enhancement of a DRA Based on Characteristic Modes Analysis***

Ammar Romain (University Of Rennes, France); Ala Sharaiha (Université de Rennes & IETR, France); Sylvain Collardey (University of Rennes 1, France)

16:50 ***Low-Profile Magnetoelectric Dipole Antenna Array with Heat Dissipation Enhancement***

Junming Ding (Shanghaijiaotong University, China); Min Tang (Shanghai Jiao Tong University, China); Yue Ping Zhang (Nanyang Technological University, Singapore)

2F7: [OS14] Emerging Technologies in Transmitarray/Lens Antennas and RISs for Beyond 5G Systems

Room F

Chairs: Shu-Lin Chen (University of Technology Sydney, Australia), Lizhao Song (University of Technology Sydney, Australia & N/a, Australia)

15:30 ***A Wideband Flat Gradient-Index Lens for Wide-Angle Multi-Beam Radiation***

Lizhao Song (University of Technology Sydney, Australia & N/a, Australia); Peiyuan Qin and Y. Jay Guo (University of Technology Sydney, Australia)

15:50 ***A Luneburg Lens Antenna with High Aperture Efficiency***
Guo-Ting Liang, Bohai Zhang, Shuai Gao, Zhe Chen and Tao Yuan (Shenzhen University, China)

16:10 ***Horizontally-Aligned Reconfigurable Generalized Joined Coupler Matrix with Independently Scanned Multibeam***
Yang Xu, Ming Li, Hao Zhang, Shu-Lin Chen and Y. Jay Guo (University of Technology Sydney, Australia)

16:30 ***Beam-Steerable Antenna Pair Fed by a Varactor-Based Frequency-Swappable Diplexer***
Yuan Yuan (The University of Adelaide, Australia); Shengjian Jammy Chen (Flinders University, Australia & The University of Adelaide, Australia); Christophe Fumeaux (University of Queensland, Australia)

16:50 ***Design Metasurface Glass for Dual-Functionality in 5G Communication and Sensing Applications***
Ahmed Abdeen, Jr (1Egypt-Japan University of Science and Technology, Egypt & Electronics Research Institute (ERI), Egypt); Adel Bedair (Egypt-Japan University of Science and Technology, Egypt); Ahmed Sayed Ahmed Abdelhamid Allam (Egypt-Japan University of Science and Technology (E-JUST), Egypt); Tanemasa Asano (Kyushu University, Japan)

2G7: Novel Control Techniques for EM Waves and Circuits

Room G
Chairs: Sangkil Kim (Pusan National University, Korea (South)), Yuichi Kimura (Saitama University, Japan)

15:30 ***Parameter Reduction of Acceleration Framework for Automatic Circuit Design with GA***
Yuta Takayama, Takuma Akada and Kazuhiro Fujimori (Okayama University, Japan)

15:50 ***Phase Nonlinearity Compensation Under Low-Power Conditions in Wideband VNA Systems***
Sungjun Cho (Korea Advanced Institute of Science and Technology, Korea (South)); Seong-Jin Kim (KAIST, Korea (South)); Ji-Young Kim (Korea Advanced Institute of Science and Technology, Korea (South)); Jong-Won Yu (KAIST, Korea (South))

16:10 ***Broadband Frequency-Reconfigurable Metamaterial Absorber Using Large-Area Vanadium Dioxide-Based Switches***
Junghyeon Kim, Minjae Lee and Sungjoon Lim (Chung-Ang University, Korea (South))

16:30 ***Development of Multi-Band Transparent Microwave Absorber Glass Plate***
Yuto Ohta and Yoshinobu Okano (Tokyo City University, Japan); Oka Hidetoshi, Hideaki Oshima, Mamoru Yoshida, Katsuki Ishikawa and Daisuke Inaoka (Nippon Sheet Glass Company, Japan)

16:50 ***Comparative Study of Additive Manufacturing Technologies for Millimeter-Wave OMTs***
Xin Wen, John S. Kot, Keyi Ma and Rodica Ramer (University of New South Wales, Australia)

Wednesday, October 29

Wednesday, October 29 9:00 - 10:40

3A1: [OS05] Propagation Channel Models and Measurement Methodologies for 6G Communication and Sensing

Room A
Chairs: Taro Eichler (Rohde & Schwarz, Germany), Wilhelm Keusgen (Technische Universität Berlin, Germany)

9:00 ***Measuring Time-Varying THz-Channels at 300 GHz for High-Resolution Sensing and Communication***
Wilhelm Keusgen (Technische Universität Berlin, Germany); Taro Eichler (Rohde & Schwarz, Germany)

9:40 ***Unlocking the Potential of THz Links for 6G Aerial Communications and Sensing***
Dajana Cassioli and Alex Piccioni (University of L'Aquila, Italy)

10:00 ***Human RF Channel Modeling: Ray Tracing Methods for 6G ISAC***
Tarun K Chawla (Remcom, Inc, USA); Benjamin M Hardy (Remcom Inc, USA); Gregory Skidmore (Remcom, Inc., USA); Swagato Mukherjee (Remcom Inc, USA)

10:20 ***Indoor Dynamic Channel Measurement for ISAC***
Wataru Yamada and Minoru Inomata (NTT, Japan); Tomoki Murakami (NTT Corporation, Japan); Ryotaro Taniguchi (NTT, Japan); Motoharu Sasaki (NTT Corporation, Japan); Nobuaki Kuno, Koshiro Kitao, Satoshi Suyama and Takahiro Tomie (NTT DOCOMO, INC, Japan); Taro Eichler (Rohde & Schwarz, Germany); Wilhelm Keusgen (Technische Universität Berlin, Germany)

3B1: DOA/TOF Estimation, Localization, Sensing and Radar

Room B
Chair: Kazuma Tomimoto (Softbank Corp., Japan)

9:00 ***Evaluation of Element Reduction Effect in Terahertz Synthetic Aperture Imaging Using Compressed Sensing***
Hikaru Ishizuka, Keizo Cho, Hiroaki Nakabayashi and Koji Suizu (Chiba Institute of Technology, Japan)

9:20 ***Experimental Study of Surface Velocity Sensing in an Open-Channel Flume Using Millimeter-Wave FMCW Radar***
Takumi Matsuda and Hiroyoshi Yamada (Niigata University, Japan); Hiroyasu Yasuda (Niigata University & Deportment of Civil and Environmental Engineering, Japan)

9:40 ***Study on Target Classification in NLOS Using Radio Wave Sensing***
Shota Iwasaki (Mitsubishi Electric Corporation, Japan)

10:00 ***Experimental Evaluation of Outline Refinement of Millimeter-Wave Radar Imaging Using CNN Regression***

Hirofumi Joshita, Koki Kato, Naoki Honma and Kentaro Murata (Iwate University, Japan)

10:20 ***Coconut Quality Inspection Using Natural Resonant Frequencies and Random Forest Classification***
Tanawut Tantisopharak (Khon Kaen University, Thailand); Thunyawat Limpiti (Walailak University, Thailand); C. Kittiyanpunya (KMITL, Thailand); Chulalak Talubnak (Chandrakasem Rajabhat University, Thailand)

3C1: [OS29] Recent Advances in Radar Technologies and Related Topics

Room C

Chairs: Kangwook Kim (GIST, Korea (South)), Takuji Arima (Tokyo University of Agriculture and Technology, Japan)

9:00 ***Direct-Writing of an Antenna with Distributed Loading for Subsurface Radar Imaging***
Woong Kang (Korea Institute of Geoscience and Mineral Resources, Korea (South)); Kangwook Kim (GIST, Korea (South))

9:20 ***Straighten Out the Complex Signal: a CMA-Inspired Adaptive Array for Vital Sign Detection Radar***
Naoki Honma, Kentaro Murata, Morio Iwai and Koichiro Kobayashi (Iwate University, Japan)

9:40 ***Preliminary Adverse Weather Effect Evaluations of 96 GHz Millimeter-Wave Radar for Airport Runway Foreign Object Debris Detection System***
Shunichi Futatsumori and Noriaki Hiraga (Electronic Navigation Research Institute, Japan)

10:00 ***Recent Advances in Space-Time Coding Direct Antenna Modulation Based Radar Sensor***
Shuping Li and Chung-Tse Michael Wu (Rutgers University, USA)

10:20 ***FDTD Analysis of on-Glass Dipole Antenna Mounted in Full-Scale Vehicle on Flat Earth for Radar Application***
Yuya Abe (Tokyo University of Agriculture and Technology, Japan); Toru Uno (Tokyo University of Agricultural Technology, Japan); Takuji Arima (Tokyo University of Agriculture and Technology, Japan); Keisuke Arai and Osamu Kagaya (AGC Inc., Japan)

3D1: [OS11] Antennas for 6G/Next Generation Communications

Room D

Chair: Keisuke Sato (Denki Kogyo Co. Ltd., Japan)

9:00 ***Narrow Multi-Beam Formation Technology for Frequency Sharing Between Low Earth Orbit Satellite and Ground Terminals -a Study on Positioning Error of Non-Wired Phased Array Antenna Mounted on PicoSats-***
Genma Hattori, So Ema, Yuta Horie and Kazuhisa Sano (Microwave Factory Company Limited, Japan); Takashi Takahashi, Takuya Okura and Hiroyuki Tsuji (National Institute of Information and Communications Technology, Japan); Sumio Morioka and Takahiro Inagawa (Interstellar Technologies Inc., Japan)

9:20 ***Dual-Band CP Reconfigurable Antenna Composed of Metalines and Patches***
Tomoki Abe and Hisamatsu Nakano (Hosei University, Japan)

9:40 ***3D-Printed Antenna Solutions for 6G: a Review with Emphasis on Research in Thailand***
Nonchanutt Chudpooti and Prayoot Akkaraekthalin (King Mongkut's University of Technology North Bangkok, Thailand)

10:00 ***Substrate-Integrated Inverted-L Slot Array for 6G Mobile Communications***
Alberto Hernández-Escobar and Takashi Tomura (Institute of Science Tokyo, Japan)

10:20 ***Photonic-Assisted Radio Beamformer for High-Frequency Wireless Applications***
Ken Hiraga, Honoka Itou, Hirofumi Sasaki and Riichi Kudo (NTT Corporation, Japan)

3E1: [OS13] Emergent Wireless Power Transmission Applications and Core Technologies

Room E

Chairs: Naoki Hasegawa (Softbank, Japan), Yuki Tanaka (Panasonic Holdings Corporation, Japan)

9:00 ***Integrated Communication and Wireless Power Transfer System with Beamforming Control***
Yuta Nakamoto (Softbank Corp., Japan); Naoki Hasegawa (Softbank, Japan); Kosuke Takeda, Masaya Ogino, Kiyotaka Imai and Takashi Hirakawa (SoftBank Corp., Japan); Yuki Takagi (Softbank corp., Japan); Yoshichika Ohta (Softbank Corp., Japan)

9:20 ***Analysis of Matching Circuit Loss Versus Transmitting Electrode Length in Platform-Electrode Capacitive Power Transfer***
Shinji Abe (Power Wave Co. Ltd, Japan)

9:40 ***A Novel Rectenna Structure with a GaAs Rectenna MMIC and an EM Coupled External Antenna***
Naoki Sakai, Masaomi Tsuru, Keisuke Noguchi and Kenji Itoh (Kanazawa Institute of Technology, Japan)

10:00 ***Experimental Evaluation of Beamforming with Broad Nulls for Microwave Power Transfer***
Zhengdong Lin, Yu Kagaya, Akira Ebihara, Daisuke Kobuchi, Hiroyuki Morikawa and Yoshiaki Narusue (The University of Tokyo, Japan)

10:20 ***Experimental Evaluation of Massive RIS-Assisted Wireless Power Transfer Based on Channel Estimation with Limited Power Sensors***
Yuto Ozawa, Kentaro Murata and Naoki Honma (Iwate University, Japan)

3F1: [OS23] IEEE AP-S and ISAP 2025 Young Professional Special Session

Room F

Chairs: Gangil Byun (Ulsan National Institute of Science and Technology (UNIST), Korea (South)), Can Ding (University of Technology Sydney (UTS), Australia)

9:00 ***915MHz Wireless Power Transfer System for Supercapacitor-Energized IoT Terminals***

Wei Lin (The Hong Kong Polytechnic University, Hong Kong)

9:25 ***Spectral-Domain Green's Function Analysis of Connected Slot Antenna Arrays with Multilayer Dielectric Media***
Dongju Choi (Ulsan National Institute of Science and Technology, Korea (South)); Gangil Byun (Ulsan National Institute of Science and Technology (UNIST), Korea (South))

9:50 ***RePH: RIS-Inspired Electronic Phantom***
Kentaro Murata, Naoki Honma and Shinya Miyajima (Iwate University, Japan)

10:15 ***Design of Low-Profile Square-Bottom Lens Antenna Array with anti-Reflection Structure on Lens Surface of High-Permittivity Material***
Yoshiki Sugimoto, Hideaki Sugiyama, Kunio Sakakibara and Nobuyoshi Kikuma (Nagoya Institute of Technology, Japan)

Wednesday, October 29 11:00 - 12:40

3A2: Planar Antennas and Array antenna technology

Room A
Chairs: Hiroshi Hashiguchi (National Defense Academy, Japan), Kazuhiro Honda (University of Toyama, Japan)

11:00 ***Emerging Leaky-Wave Antenna Technologies for Wireless Systems***
Dongze Zheng (Southeast University, China); Ke Wu (Polytechnique Montréal, Canada)
(Invited Paper)

11:40 ***Design and Fabrication of Wideband Patch Antenna for Narrow Element Spacing Array***
Takashi Maruyama, Jun Goto and Shigeo Udagawa (Mitsubishi Electric Corporation, Japan)

12:00 ***Fundamental Study on Circularly Polarized Ring Slot and Curl Antenna Elements for 20-GHz / 30-GHz Band Shared-Aperture Phased Arrays***
Takashi Shiraki, Takehisa Wada and Takashi Tomura (Institute of Science Tokyo, Japan); Yuta Mori (Sharp Corporation, Japan)

12:20 ***A Fast DBF Array Antenna Calibration by Multi-Frequency Multi-Beam REV Method***
Tomoki Nakazawa, Koki Furuuchi, Welday Gerezgiher Berhe, Tomoyuki Furuichi, Satoshi Tsukamoto and Noriharu Suematsu (Tohoku University, Japan)

3B2: RIS and Antenna Systems for Wireless Communications

Room B
Chair: Mitoshi Fujimoto (University of Fukui, Japan)

11:00 ***Study on the Arrangement of Metal Reflectors for Indoor Wireless LANs Using the 150 GHz Band***
Keizo Cho and Akihiko Hirata (Chiba Institute of Technology, Japan)

11:20 ***A 2-Bit Reconfigurable Intelligent Surface Unit for Far-Field Focusing and Beam Scanning***
Wentao Liang, Wei Li, Maolin Chai and Liangyu Sun (Harbin Institute of Technology, China); Ruihao Gao (Harbin Institute of Technology,China)

11:40 ***Towards a 1-Bit Modulated Wireless Sensing System Utilizing Unique Capabilities of RIS***
Mondeep Saikia and Amir Masoud Molaei (Queen's University Belfast, United Kingdom (Great Britain)); Luis M. Pessoa (INESC TEC & Faculty of Engineering, University of Porto, Portugal); Simon Cotton (Queen's University, Belfast, United Kingdom (Great Britain) & Queen's University Belfast, United Kingdom (Great Britain)); Okan Yurduseven (Queen's University Belfast, United Kingdom (Great Britain))

12:00 ***Broadband Reflective Metasurface at X-Band Frequency Using Snowflakes Fractal Ring Design***
Nur Syahirah Mohd Yaziz (Universiti Teknologi Malaysia, Malaysia); Mohamad Kamal A-Rahim (Universiti Teknologi Malaysia, Malaysia & Advanced RF and Microwave, Malaysia); Noor Asmawati Binti Samsuri (Universiti Teknologi Malaysia, Malaysia); Farid Zubir (Universiti Teknologi Malaysia & Faculty of Electrical Engineering, Malaysia); Sunti Tuntrakool (KMITL, Thailand)

12:20 ***Secrecy Performance Optimization for STAR-RIS Assisted Communications***
Fang-Biau Ueng (National Chung Hsing University, Taiwan); Ye-Shun Shen (National Formosa University, Taiwan); Li-You Lin (National Chung Hsing University, Taiwan)

3C2: [OS20] Reconfigurable Intelligent Surfaces, Metasurfaces

Room C
Chairs: Gangil Byun (Ulsan National Institute of Science and Technology (UNIST), Korea (South)), Yasutaka Murakami (UEC, Japan)

11:00 ***Pilot Test of Coverage Expansion in Local 5G Using Metasurface Reflector in a Factory***
Keisuke Arai and Osamu Kagaya (AGC Inc., Japan); Kenichi Kimura (Fujita Corporation, Japan); Manabu Fujino (Magna Wireless Corporation, Japan); Hideki Ohmae (Toyota Motor Corporation, Japan)

11:20 ***Scattering Characteristics of a Metamaterial-Based Thin Electromagnetic Scattering Sheet***
Yasutaka Murakami (UEC, Japan); Jerdvisanop Chakarothai, Lira Hamada and Katsumi Fujii (National Institute of Information and Communications Technology, Japan)

11:40 ***Reconfigurable 2-Bit Coding Metasurface Reflector with Mechanical Slide Operation***
Oora Baba, Ryuji Kuse and Takeshi Fukusako (Kumamoto University, Japan); Ho-Yu Lin, Akihiro Sato and Hideki Omote (Softbank Corp., Japan)

12:00 ***Reconfigurable Reflection Direction and Operating Frequency Band 1-Bit Reflectarray Antenna***
Taisei Urakami (National Institute of Technology, Kagawa College, Japan); Tamami Maruyama (Hiroshima Institute of Technology, Japan); Akira Ono (National Institute of Technology (KOSEN), Kagawa College, Japan); Na Chen and Minoru Okada (Nara Institute of Science and

Technology, Japan)

12:20 ***Metaradar: a Fully Integrated MIMO Radar with System-Level Time Synchronization***

Bao Thai Hoang (Ulsan National Institute of Science and Technology, Korea (South)); Jin Myeong Heo (Ulsan National Institute of Science and Technology (UNIST), Korea (South)); Anthony Grbic (University of Michigan, Ann Arbor, USA); Gangil Byun (Ulsan National Institute of Science and Technology (UNIST), Korea (South))

3D2: mmW/THz Propagation

Room D

Chairs: Azril Haniz (National Institute of Information and Communications Technology, Japan), Akihiko Hirata (Chiba Institute of Technology, Japan)

11:00 ***A Measurement of Transmission Characteristics of Laminated Glasses in mmWave and Sub-THz Bands***

Masaki Takanashi (Toyota Central R&D labs. Inc., Japan); Toshiaki Watanabe (Toyota Central R&D Labs., Inc., Japan); Katsushi Sanda (Toyota Central Research and Development Laboratories, Incorporated, Japan); Keizo Inagaki (National Institute of Information and Communications Technology, Japan & Waseda University, Japan); Hirokazu Sawada (National Institute of Information and Communications Technology, Japan); Issei Watanabe (National Institute of Infomation and Communications Technology, Japan); Norihiko Sekine (National Institute for Information and Communications Technology, Japan); Akifumi Kasamatsu (National Institute of Information and Communications Technology, Japan)

11:20 ***Effect of Cylindrical Acrylic Scattering on Polarization Characteristics of Terahertz Waves***

Masayuki Miyashita (SoftBank Corp., Japan); Kazuma Tomimoto (Softbank Corp., Japan)

11:40 ***Application of MIMO Multiplexing Technology to 120 GHz Band Sheet LAN***

Kei Takahashi, Tomoya Sugiyama and Akihiko Hirata (Chiba Institute of Technology, Japan)

12:00 ***Evaluation of Blockage Probability of Direct Wave by Human Bodies in Indoor Hotspot Environment***

Kosuke Ishii and Tetsuro Imai (Tokyo Denki University, Japan); Toshiki Hozen and Kazuma Tomimoto (Softbank Corp., Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan); Tomonori Ikeda (Softbank Corp., Japan)

12:20 ***Directional Diversity Effects in Drone Relay System Mounted with Multi-Beam Antenna***

Yudai Ishikawa and Tetsuro Imai (Tokyo Denki University, Japan)

3E2: [OS15] Technologies in implementation and deployment of mmWave

Room E

Chairs: Rui Ma (pSemi Corporation, USA), Hideki Ueda (Murata Manufacturing, Japan)

11:00 ***System Modeling for Practical mmWave Phased Array Implementation***

Rui Ma (pSemi Corporation, USA); Peter Bacon (Peregrine Semiconductor, USA)

11:20 ***60GHz Wireless Module for Long Distance Transmission and Mobility***

Hiroaki Asano (Panasonic & Panasonic System Networks R&D Laboratory, Japan); Sotaro Shinkai and Tsutomu Asanuma (Panasonic System Networks R&D Laboratory, Japan)

11:40 ***Bandwidth and Front-to-Back Ratio Improvement of Microstrip Antennas with Grounded Wall at Edge of Narrow Substrate***

Hideki Ueda, Ryo Komura and Yoshiki Yamada (Murata Manufacturing, Japan); Kaoru Sudo (Murata Manufacturing Co., Ltd., Japan)

12:00 ***Design of a DUT Socket for OTA Testing with Automated Test Equipment***

Jose Moreira (Advantest Europe GmbH, Germany); Frank Goh (Advantest, Singapore); Daniel Sun (Advantest, China); Natsuki Shiota (Advantest, Japan); Kewei Qin, Eric Sun, Yongjun Hu and Wei Xu (Advantest, China); Lu Shuai and Lei Pu (Sanechips, China); Min Lu (Sanechips Technology Co., Ltd, China & State Key Lavoratory of Mobile Network and Mobile Multimedia Technology, China); Yang Hao (Sanechips, China)

12:20 ***Synthetic Radar Return-Based Neural Network for Detecting Breathing Anomaly***

Benjamin M Hardy and Swagato Mukherjee (Remcom Inc, USA); Tarun K Chawla (Remcom, Inc, USA)

3F2: [OS23] IEEE AP-S and ISAP 2025 Young Professional Special Session

Room F

Chairs: Wei Lin (The Hong Kong Polytechnic University, Hong Kong), Kentaro Murata (Iwate University, Japan)

11:00 ***Modelling and Experimental Validation of Fluorescence Modulation in Mid-Infrared Photothermal Microscopy***

Sahil Sharma (Indian Institute of Technology, Delhi, India); Joby Joseph (Professor IIT Delhi, India); Qammer Abbasi, Jonathan Taylor and Hasan Abbas (University of Glasgow, United Kingdom (Great Britain))

11:25 ***Near-Field Surface Profilometer Using Compact Terahertz All-Dielectric Magnetic Dipole Antenna***

Daniel Headland (The University of Adelaide, Australia); Guillermo Carpintero (Universidad Carlos III de Madrid, Spain)

11:50 ***Enable Multi-Band Shared-Aperture Patch Array via Symmetrical Residual Current Cancellation***

Can Ding (University of Technology Sydney (UTS), Australia); Xichen Wang, Li Shiyong, Guoqiang Zhao and Houjun Sun (Beijing Institute of Technology, China)

12:15 ***Research on Wireless Technology Connecting Cyber and Physical Spaces***

Ryotaro Taniguchi (NTT Corporation, Japan); Minoru Inomata (NTT, Japan); Wataru Yamada, Tomoki Murakami and Tomoaki Ogawa (NTT Corporation, Japan)

Wednesday, October 29 13:40 - 15:20

Pos2: Poster Session 2

Room: Event hall

Pos2.1 ***Direction Selective Wavefront Engineering with Asymmetric Metagratings***
Zhen Tan (Nantong University, China); Jianjia Yi (Xi'an Jiaotong University, China); Shah Nawaz Burokur (LEME, France)

Pos2.2 ***Fast Calculation Method of Radiation Patterns for on-Glass Electric Dipole Arrays***
Ukyo Komai (Tokyo University of Agriculture and Technology, Japan); Toru Uno (Tokyo University of Agricultural Technology, Japan); Takuji Arima (Tokyo University of Agriculture and Technology, Japan); Keisuke Arai and Osamu Kagaya (AGC Inc., Japan)

Pos2.3 ***A Base Station Antenna for 2 GHz and 3.4 GHz with Dual Polarization Using a Frequency-Selective Reflector***
Nobukazu Tanaka and Keizo Cho (Chiba Institute of Technology, Japan)

Pos2.4 ***3-D Reconfigurable Wideband Frequency Selective Surface Based on Coupled Slotline Structures***
Rong Li, Tao Hong, Shitong Wang, Xianbo Cao and Wen Jiang (Xidian University, China)

Pos2.5 ***Experimental Validation of Up/down Converter for High-Altitude Platform Station (HAPS)***
Ting Kai Jiang, Chia-Kai Wang and Tzyh-Ghuang Ma (National Taiwan University of Science and Technology, Taiwan)

Pos2.6 ***Designing Sparse Planar Arrays with Holes Using Hole-Minimizing Strategy***
Ryuichiro Kataoka (Yokohama National University, Japan); Steven Wandale (University of Malawi, Malawi); Koichi Ichige (Yokohama National University, Japan)

Pos2.7 ***Quantum Computing Formulation for Antenna Applications Using Pseudo Binary Encoding***
Ryo Yamaguchi (SOFTBANK Corp., Japan); Tomonori Ikeda and Kazuma Tomimoto (Softbank Corp., Japan)

Pos2.8 ***Geometry Scalable Model of on-Chip Multilayer Interdigital Capacitors***
Yiwen Liu and Huanpeng Wang (University of Electronic Science and Technology of China, China); Jia Liu (China National Accreditation Service for Conformity Assessment, China); Yunqiu Wu, Jie Liu, Huihua Liu, Yiming Yu, Chenxi Zhao, Qingfeng Zhang and Kai Kang (University of Electronic Science and Technology of China, China)

Pos2.9 ***Design of a W-Band Metasurface Absorber with Optically Transparent Performance***
Young-Pyo Hong and Tae-Weon Kang (Korea Research Institute of Standards and Science, Korea (South)); In-June Hwang (Korea Research Institute of Standards and Science (KRISS), Korea (South)); Dal-Jae Yun (Korea Research Institute of Standards and Science, Korea (South)); Dahye Shin and Jinwoo Park (Agency for Defense Development, Korea (South))

Pos2.10 ***Design of 4-Beam Orthogonal Switching Matrices Using Couplers with Smaller Coupling Ratio***
Boyu Zhang, Shengjia Wu, Jiro Hirokawa and Takashi Tomura (Institute of Science Tokyo, Japan); Nelson Fonseca (Anywaves, France)

Pos2.11 ***Beamforming of Array Antennas Using Quantum Annealing***
Kayako Yuda and Mitoshi Fujimoto (University of Fukui, Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan); Kazuma Tomimoto and Tomonori Ikeda (Softbank Corp., Japan)

Pos2.12 ***Amplitude-Tailorable Spin-Decoupled Metasurface for Wideband Dual-Circularly Polarized Low-Sidelobe Transmitarray***
Weixu Yang, Ke Chen and Yijun Feng (Nanjing University, China)

Pos2.13 ***Propagation Study on the Feasibility and Hardware Requirements for RIS-Assisted Indoor THz-Communications***
Christoph Herold, Bo Kum Jung and Thomas Kürner (Technische Universität Braunschweig, Germany)

Pos2.14 ***Positional Accuracy of Multilateration and ADS-B on Airport Surface Through Flight Experiment***
Junichi Honda and Takuya Otsuyama (Electronic Navigation Research Institute, Japan); Yasuyuki Kakubari (Electronic Navigation Research Institute, MPAT, Japan); Keisuke Matsunaga (Electronic Navigation Research Institute, Japan)

Pos2.15 ***Angle-Range Beamforming Based on FDA-MIMO***
Jiangwei Jian (National University of Singapore, Singapore & University of Electronic Science and Technology of China, China); Koen Mouthaan (NUS, Singapore)

Pos2.16 ***Performance Evaluation of Non-Linear Precoded Massive MIMO-OFDM with Peak Cancellation***
Kiyoaki Inada, Zhuoran Li and Osamu Muta (Kyushu University, Japan)

Pos2.17 ***Impedance Matching Method of Metasurface-Aided Magnetic Wireless Power Transfer for Deep Implants Based on Maximal Ratio Combining***
Ryoya Ishiura, Maoyuan Li and Takahiro Aoyagi (Institute of Science Tokyo, Japan)

Pos2.18 ***Sophistication of Machine Learning Model for Temperature Prediction During Microwave Renal Denervation***
Fitriyanti Nur Aisyah, Tohgo Hosoda, Tsugumi Nishidate and Kazuyuki Saito (Chiba University, Japan)

Pos2.19 ***Robust First-Order Bragg Peak Extraction Method Based on Improved Dynamic Programming***
Zichun Wang, Yingning Dong and Xin Zhang (Harbin Institute of Technology, China)

Pos2.20 ***Initial Functionality Test of a Future Airport Surveillance Radar Using Software-Defined Radio***
Kazuyuki Morioka (Electronic Navigation Research Institute, Japan); Gaku Sato (Electronic Navigation Research Institute, Japan & Yokohama National University, Japan); Naruto Yonemoto (Electronic Navigation Research Institute & National Institute of Maritime, Port, and Aviation Technology, Japan); Junichi Honda (Electronic Navigation Research Institute, Japan)

Pos2.21 ***Accuracy Assessment of Rebar Corrosion Estimation in Concrete Using UWB Radar***
Masahiko Nishimoto (Kumamoto University, Japan); Yoshihiro Naka (University of Miyazaki, Japan); Kohichi Ogata (Kumamoto University, Japan)

Pos2.22 ***Semi-Implicit FDTD Analysis of a Spoof Plasmonic Structure with High-Contrast Gratings***
Kazuhiro Fujita (Saitama Institute of Technology, Japan)

Pos2.23 ***Accuracy Improvement by Utilizing Electric Field Correction in the FDTD Method***
Haku Inanobe and Takuji Arima (Tokyo University of Agriculture and Technology, Japan); Wataru Yamada (NTT Corporation, Japan)

Pos2.24 ***An Open-Loaded Coupled Line with Asymmetric Output Power for Developing Nonplanar Microwave Sensors***
Chien-Hao Liu, Chen-Pu Chang, Ching-Lung Yen and Yuan-Tai Ho (National Taiwan University, Taiwan); Pai-Yen Chen (University of Illinois at

Chicago, USA)

Pos2.25 ***Multimodal Bloch Analysis for the Retrieval of Constitutive Parameters Under Oblique Incidence***
Moises Tercero (KTH Royal Institute of Technology, Sweden & Thales Research and Technology, France); Francisco Mesa (University of Seville, Spain); Oscar Quevedo-Teruel (KTH Royal Institute of Technology, Sweden)

Pos2.26 ***300-GHz Beam-Steering Wireless Communication Enabled by Tunable Laser & Chromatic Dispersion***
Masato Kawano, Yoshiki Kamiura, Bo Li, Yuya Mikami and Kazutoshi Kato (Kyushu University, Japan)

Pos2.27 ***A Ka-Band Filtering Leaky-Wave Antenna Based on Single-Ridge Waveguide***
Dongxu Wang and Sihai Hu (Xi'an Jiaotong University, China); Roberto Gómez-García (University of Alcalá, Spain); Kai-Da Xu (Xi'an Jiaotong University, China)

Pos2.28 ***Electromagnetic Characterization in a Thermally Constrained Environment at ONERA***
Cedric Martel, Juan-Carlos Castelli, Aurélie Dorlé, Herve Jeuland, Aurélie Jankowiak, Jean-François Petex, Loïc Castanet and Francois Issac (ONERA, France)

Pos2.29 ***A Novel Low-RCS Phased ArrayBased on Principle of Phase Cancellation***
Xin Yue, Jinbo Liu, Zengrui Li, Qingxin Guo and Yajin Wang (Communication University of China, China)

Pos2.30 ***Design and Simulation of an s-Band Slot Antenna Integrated into a 3U CubeSat Rail***
Daisuke Nakayama, Tohlu Matsushima and Yuki Fukumoto (Kyushu Institute of Technology, Japan)

Pos2.31 ***A Slot-Coupled SRR Antenna for 5G n77 Applications***
Wen Hsiu Hsu (University of SHU-TE, Taiwan)

Pos2.32 ***Design of a Circularly Dual-Polarized Wideband Microstrip Antenna Fed by Two Orthogonally-Arranged L-Probes and a Two-Section Hybrid Coupler***
Yo Makabe and Yuichi Kimura (Saitama University, Japan)

Pos2.33 ***Design of a Low-Profile Wideband Ring Microstrip Antenna Fed by Two L-Probes with a Rat-Race Coupler***
Seidai Suzuki and Yuichi Kimura (Saitama University, Japan)

Pos2.34 ***Antennas for Wireless Powering of Wearable Devices in Small Animal Medical Research***
Haruki Ishigaki, Takafumi Fujimoto and Chai-Eu Guan (Nagasaki University, Japan)

Pos2.35 ***A Compact Polarization-Reconfigurable Transmit Phased Array for L-Band Radar***
Haoze Luan and Gong Chen (National University of Singapore, Singapore); Koen Mouthaan (NUS, Singapore)

Pos2.36 ***Array Pattern Optimization Method for Modular Subarray-Based Fabry-Perot Cavity Antenna Array***
Zi Li, Qiming Wang and Jiaran Qi (Harbin Institute of Technology, China)

Pos2.37 ***Decoupling and Cross-Polarization Suppression for Antenna Using Parasitic Strips***
Mengdi Liu and Hui Li (Dalian University of Technology, China)

Pos2.38 ***Dynamic Pattern Generation of a Two-Element ESPAR Antenna Using Reactance Time Function***
Anand Mohan Gupta and Masato Saito (University of the Ryukyus, Japan)

Pos2.39 ***Multiband, Short-Circuited Plate Dipole for Wi-Fi 8 and 6G Applications***
Saou-Wen Su, Tung-Chan Yu and Ju-Cheng Huang (National Kaohsiung University of Science and Technology, Taiwan)

Pos2.40 ***A Tri-Band Shared-Aperture Antenna Based on Dipole and Taper Slots with Large Frequency Ratio***
Xin Chen, Qing-Yi Guo and Yu-Xiang Sun (Shenzhen University, China)

Pos2.41 ***Omnidirectional Circularly Polarized Dielectric Resonator Antenna for UAV Aplications***
Sandra Zuleta and Yair Zarate (Pontificia Universidad Católica de Valparaíso, Chile); Francisco Pizarro (Pontificia Universidad Catolica de Valparaiso, Chile)

Pos2.42 ***A Low-Profile Wideband Endfire-Broadside Integrated mmWave Phased Array Antenna for B5G IoT Smartphones***
Lixing Zhao (University of Electronic Science and Technology of China, China & None, China); Ya Fei Wu and Yu Jian Cheng (UESTC, China)

Pos2.43 ***3D-Printed Sub-Terahertz Beam-Scanning Device***
Hongmei Li, Yiding Liu, Wang Yuzhong and Yu Axiang (Harbin Institute of Technology, China); Yizhi Zhang (Harbin Institute of Technolog, China); Mingshuang Hu, Zeming Kong and Jiaran Qi (Harbin Institute of Technology, China)

Pos2.44 ***A 1-Bit Broadband Angle-Insensitive Reconfigurable Metasurface for Multi-Beam Generation and Radar Cross Section Reduction***
Fengan Li (Shanghai Jiao Tong University, China); Xiaochun LI (SHANGHAI Jiao Tong University, China); Ping LI (University of Electronic Science and Technology of China, China)

Pos2.45 ***Fully Additive Manufactured Ku-Feeder Link Antenna for Satellite Communications***
Juan Andres Vásquez Peralvo, Symeon Chatzinotas, Hafsa Talpur and Ulan Myrzakhan (University of Luxembourg, Luxembourg)

Pos2.46 ***Flexible Circularly Polarized Antenna for Wearable off-Body Defense Communication***
Rishabh Kumar Baudh (PDPM IIITDMJ, India); Sonal Sahu (PPPM IIITDM JABALPUR, India); Dinesh Vishwakarma (PDPM-IIITDM Jabalpur, India); Manoj Singh Parihar (ABV-IIITM, Gwalior, India)

Pos2.47 ***Performance Evaluation of Miniaturized MACKEY Using Interdigital Capacitor Based on Simulation and Measurement***
Yoichi Murakami, Ryoya Kishi, Toru Fukasawa and Shigeru Makino (Kanazawa Institute of Technology, Japan)

Pos2.48 ***Effect of Breathing on Reflection and Diffraction of 300 GHz Radio Waves in the Human Body***
Akihiko Hirata (Chiba Institute of Technology, Japan)

Pos2.49 ***Effect of Road Width on Non-Line-of-Sight Propagation over Intersections***
Shunsuke Mabuchi and Mitoshi Fujimoto (University of Fukui, Japan)

Pos2.50 ***Oriented Ship Detection in SAR Images with Angle-Aware Gaussian IoU Loss***
Xiaowo Xu (National University of Singapore, Singapore); Xiaoling Zhang (University of Electronic Science and Technology of China, China);

Koen Mouthaan (NUS, Singapore)

Pos2.51 ***Unit Cell Design and Performance Evaluation of a Reconfigurable Intelligent Surface Utilizing Liquid Crystals***
Kazuki Matsunaga, Mitsutaka Okita, Daiichi Suzuki and Shinichiro Oka (Japan Display Inc., Japan)

Pos2.52 ***Wireless Charging System for UAVs Based on High-Integration Irregular Asymmetric Coupler and Constant Current Output***
Hao Wang, Chunyan Xiao, Sihui Hao and Bohan Yang (Beihang University, China)

Pos2.53 ***An Optically Modulated UHF RFID Tag and Its Application in Range of Motion Arc of Shoulder Rehabilitation***
Chao Yu Jiang (University of Macau, Macao); Kam Weng Tam (University of Macau, China); Chi Hou Chio (University of Macau, Macao); Wenhai Zhang (Soochow University, China); Qiwei Chen and Junxiao Liu (Macau Wujing Technology Co Ltd, Macao); Hou-Pan Sio and Man-Chon Si (Macao Science Center, Macao); Fan Zou Chen (University of Macau, Macao); Tian Hua Tang (University of Macao, Macao); Cheng Teng (University of Macau, Macao); Ngai Kong (Crosstech Innovation Group Limited, China)

Pos2.54 ***A Fast Time-Frequency Transformation Method for EM Response Calculation Based on High-Frequency Transmission Line Equations***
Yiqing Tao, Chunyan Xiao, Rundong Liu and Weiya Liang (Beihang University, China)

Pos2.55 ***Analysis of Effective Permittivity and Permeability in a Landy-Type Metamaterial Absorber***
Takayuki Matsumuro and Satoru Shimizu (ATR, Japan); Toshikazu Sakano (Advanced Telecommunications Research Institute International, Japan)

Pos2.56 ***Dual-Band Metasurface to Improve Transmission Through Glass in mm-Wave Array Modules for Mobile Terminals***
Rocio Rodriguez-Cano and Shuai Zhang (Aalborg University, Denmark)

Pos2.57 ***Eliminating Communication Blindspots Using a Single-RF Chain Planar 60 GHz Antenna Featuring High Gain and Wide-Beamwidth***
Sungjun Han (Pohang University of Science and Technology (POSTECH), Korea (South)); Geon Park (POSTECH, Korea (South)); Dongseop Lee (Pohang University of Science and Technology (POSTECH), Korea (South)); Jeonghyo Lee (POSTECH, Korea (South)); Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

Pos2.58 ***Design and Analysis of a 28 GHz Leaky-Wave Antenna with Coaxial Feeding***
Takahisa Kanamoto (I-PEX Inc., Japan & Graduate School of Engineering, Takushoku University, Japan); Takumi Okubo and Toshiyuki Maeyama (Takushoku University, Japan); Hiroki Nakamura (I-PEX Inc., Japan); Genma Hattori (Graduate School of Engineering, Takushoku University, Japan)

Pos2.59 ***Design of 140 GHz Array Antenna Using Synthetic Fused Silica Glass Substrate***
Daisuke Yamanaka and Osamu Kagaya (AGC Inc., Japan)

Pos2.60 ***Design of a Novel Planar Filtering Quasi-Yagi Antenna***
Zhongpeng Liu (Northwestern Polytechnical University, China); Xilong Lu (Yangtze River Delta Research Institute, Northwestern Polytechnical University, China); Yunxi Tao and Liu Qingyue (Northwestern Polytechnical University, China); Zeyuan Chen (NorthwesternPolytechnicalUniversity, China); Rui Zhang (Yangtze River Delta Research Institute, Northwestern Polytechnical University, China)

Pos2.61 ***Efficient Full-Wave Analysis and Optimization of Large Horn and Waveguide Antenna Arrays***
Min Zhou, Pasquale Giuseppe Nicolaci and Erik Jørgensen (TICRA, Denmark)

Pos2.62 ***A DGS-Based Dual-Band Antenna for ISM, WiMAX, and X-Band Satellite Communication***
Tithi Rani (Rajshahi University of Engineering and Technology, Bangladesh); Naymaa Rashid and Liton Chandra Paul (Pabna University of Science and Technology, Bangladesh); Sk A. Shezan (Northern Border University, Saudi Arabia); Md. Ashraful Haque (UTP, Bangladesh); Ali H Alenezi (Northern Border University, Saudi Arabia)

Pos2.63 ***Dual-Band Microstrip Antena with T- and E-Shape Defected Ground Structure for Wi-Fi 7 Technology***
Loveta Ramyhaidar Winaryo and Fitri Yuli Zulkifli (Universitas Indonesia, Indonesia)

Pos2.64 ***A Novel Low-Profile UWB Electric Dipole Antenna for Ice-Penetrating Radar Applications***
Yuxiao Tian, Zhaoqian Gong and Feng Zhang (Aerospace Information Research Institute Chinese Academy of Sciences, China); Zhangjun Ma (University of Chinese Academy of Sciences, China)

Pos2.65 ***A Stacked Wideband Dielectric Resonator Antenna for 5G Communication Systems***
Pan Yin, Qixin Tang, YongQi Cheng, Ziyang Zhang, Lijia Chen and Shengchang Lan (Harbin Institute of Technology, China)

Pos2.66 ***A Study on Miniaturization of Millimeter-Wave UWB Monopole Antenna Using Coupling Structure***
Nobuyasu Takemura (Chukyo University, Japan)

Pos2.67 ***A Wideband 2 × 2 Array Antenna with 45-Degree Half-Power Beamwidth for Angular Characterization at 5-to-6 GHz ISM Band***
Indar Surahmat (RWTH Aachen University, Germany & Universitas Muhammadiyah Yogyakarta, Indonesia); Florian Reher (RWTH Aachen University, Germany); Widyasmoro Widyasmoro (Universitas Muhammadiyah Yogyakarta, Indonesia); Dirk Heberling (RWTH Aachen University, Germany)

Pos2.68 ***Dual-Band Dual Slant-Polarized 5G Base-Station Antenna for Sub-6 GHz Spectrum***
Vikrant Singh (5GIC & 6GIC, Institute for Communication Systems (ICS), University of Surrey & Digital Catapult, United Kingdom (Great Britain)); Demos Serghiou and Ali Araghi (University of Surrey, United Kingdom (Great Britain)); Mohsen Khalily (University of Surrey & 5G Innovation Centre, Institute for Communication Systems (ICS), United Kingdom (Great Britain))

Pos2.69 ***Dual-Polarized Ultra-Wide-Angle Scattering Metasurface***
Sun-Gyu Lee, Jung Ick Moon and Jung-Nam Lee (Electronics and Telecommunications Research Institute, Korea (South))

Pos2.70 ***Field-of-View-Enhanced Metasurface Lens Based on Dual-Polarized Elements***
Nannan Wang (Harbin Institude of Technology, China); Yongjian Ma, Pengcheng Wang, Jingjing Liu and Jinghui Qiu (Harbin Institute of Technology, China)

Pos2.71 ***Calibration Factor Measurement of RF Power Sensors Using a Vector Network Analyzer***
Young Jin Yun (Korea Testing Laboratory, Korea (South))

Pos2.72 ***Three-Axis Magnetic Induction Sensor for Mid-Range Magnetic Communication in Heterogeneous Media Environments***

Jang-Yeol Kim (ETRI, Korea (South)); Hyun Joon Lee (Electronics and Telecommunications Research Institute, Korea (South)); JungHoon Oh (ETRI, Korea (South)); Kye-Seok Yoon (Electronics and Telecommunications Research Institute, Korea (South)); In-Kui Cho (ETRI, Korea (South))

Pos2.73 ***Radio Propagation Prediction Using Machine Learning and Multiple Side-View Images***
Kazuki Yuasa and Koichi Ichige (Yokohama National University, Japan); Tatsuya Nagao and Takahiro Hayashi (KDDI Research, Inc., Japan)

Pos2.74 ***Monitoring Pollinators with 60 GHz Micro-Doppler Radar***
Maryam Norouzi (Postdoctoral Researcher, Trinity College Dublin, Ireland); Pieter Barnard (PhD, Trinity College Dublin, Ireland); Ian Donohue (Professor in Environmental Science and Head of School of Natural Sciences Trinity College Dublin, Ireland); Adam Narbudowicz (Associate Professor, DTU Space, Technical University of Denmark, Denmark)

Pos2.75 ***A MIM0 Array Antenna for Millimeter-Wave Imaging Radar***
Jia Fang (CETC38, China)

Pos2.76 ***Estimation Method for Elevation Angle of Arrival Using a Circular Monopole Array Antenna***
Haruto Mouri and Kazuhiro Honda (University of Toyama, Japan)

Pos2.77 ***Compact High-Directive Electronically-Beam-Switchable Yagi-Uda Antenna for Sub-6G Technology***
Raneem Jaafar (Université de Rennes, France); Sylvain Collardey (University of Rennes 1, France); Ala Sharaiha (Université de Rennes & IETR, France)

Pos2.78 ***Non-Dispersive Jones Matrix for Polarization Multiplexed Holographic Encryption***
Mingshuang Hu and Jiaran Qi (Harbin Institute of Technology, China)

Pos2.79 ***A Dual-Polarized Antenna Array with L-Strip Isolator for Ka-Band Satellite Communication***
Sung-Nien Hsieh, Shu-Ming Yang and Ding-Bing Lin (National Taiwan University of Science and Technology, Taiwan)

Pos2.80 ***Double Ridged Antenna with Dipole Element***
Akio Kuramoto (NEC Platforms, Ltd., Japan)

Pos2.81 ***Variation of Global Ionospheric Parameters on Space-Borne VLF Antenna Characteristics***
Yangyong Zhang and Yu Chen (722 Research Institute, CSIC, China); Zhiqiang Chai, Dudu Huang and Huiran Zeng (Xidian University, China); Tong He (Zhejiang Lab, China); Li Kai (Zhejiang University, China)

Pos2.82 ***Accurate Measurement of Electric Fields near Scattered Objects in the GHz Band Using Electro-Optic (EO) Probes***
Takuji Arima and Haku Inanobe (Tokyo University of Agriculture and Technology, Japan); Wataru Yamada (NTT Corporation, Japan)

Pos2.83 ***Current Ratio Conditions for Optimal Efficiency in a Multi-Tx WPT System with Different Coil Specifications***
Hyungchul Kim (National Korea Maritime & Ocean University, Korea (South))

Pos2.84 ***A Quick and Low-Cost Simulation Approach for the OAM Metasurface with 20 x 20 Unit Cells***
YongYu Huang, Wang Cheong and Kam-weng Tam (University of Macau, Macao); Hongji Li (Shenzhen University, China); Chao Yu Jiang (University of Macau, Macao); Huawei Lin (University of Macau, China); Ngai Kong (Crosstech Innovation Group Limited, China); Hou-Pan Sio and Man-Chon Si (Macao Science Center, Macao)

Pos2.85 ***Passive Single-Layer Smart Electromagnetic Skin for Enhancing 5G Signal Coverage in Urban Areas***
Zhuo Huang, Guan-Long Huang and Mustafa Khalid Taher Al-Nuaimi (Foshan University, China); Wei Lin (The Hong Kong Polytechnic University, Hong Kong); Yiannis Vardaxoglou (South China University of Technology, China)

Pos2.86 ***Receiver Design Considerations for Non-Coil Wireless Power Transfer Systems***
Jungho Kim and Sungmin Shin (Ulsan National Institute of Science and Technology, Korea (South)); Seongbin Kwon (UNIST, Korea (South)); Franklin Bien (Ulsan National Institute of Science and Technology, Korea (South))

Wednesday, October 29 15:40 - 17:40

3A4: [OS04] Antenna Measurement Techniques Association (AMTA)

Room A

Chairs: Michitaka Ameya (AIST, Japan), Jin-Seob Kang (KRISS, Korea (South))

15:40 ***Recent Advances in Plane Wave Generators for Low Frequency Antenna and System Level Testing***
Lars Foged (Microwave Vision Italy, Italy)
(Invited Paper)

16:20 ***One-Port Calibration Technique for Measuring the Reflectivity of Millimeter-Wave Absorbers***
Jin-Seob Kang (KRISS, Korea (South))

16:40 ***Comparison of near-Field to Far-Field Transformations for Bistatic Radar Cross-Section Prediction with Fixed Transmitter Position***
Yoshihiko Akamine (Japan Ministry of Defense, Japan)

17:00 ***Near-Field Reconstruction Using Gaussian Process Regression for Sparse Spherical near-Field to Far-Field Transformation***
Michitaka Ameya (AIST, Japan)

17:20 ***Receiving Performance of the 4-Element Array Antenna-Coupled Electrode Electro-Optic Modulator for 80 GHz Band***
Satoru Kurokawa (National Institute of Advanced Industrial Science and Technology, Japan); Michitaka Ameya (AIST, Japan); Masatoshi Onizawa and Masahiro Sato (SEIKOH GIKEN, Japan); Hiroshi Murata (Mie University, Japan)

3B4: [OS19] Innovative antenna systems for the realization of integrated wireless technology

Room B

Chairs: Wei Lin (The Hong Kong Polytechnic University, Hong Kong), Kentaro Murata (Iwate University, Japan)

15:40 ***Improved Data Transmission Rates in 300-GHz-Band Communication Using Reconfigurable Metalens***

Adam Pander and Hibiki Kagami (NTT Device Technology Laboratories, Japan); Hiroshi Hamada and Daisuke Kitayama (NTT Corporation, Japan); Haruka Matsunaga and Hiroyuki Takahashi (NTT Device Technology Laboratories, Japan)

16:00 ***FDTD Analysis of Characteristics of Reflection from Ocean Debris in Marine FMICW Radar***

Takuji Arima and Kyoya Inakawa (Tokyo University of Agriculture and Technology, Japan)

16:20 ***Study on Improving Target Detection Accuracy of Sensing Using Mobile Communication Systems***

Kazuma Tomimoto (Softbank Corp., Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan); Toshiki Hozen and Shumpei Tabuchi (Softbank Corp., Japan)

16:40 ***Interference-Free Human-Aware Beamforming for Microwave Wireless Power Transfer***

Mao Sekine, Shunto Arai, Kentaro Murata and Naoki Honma (Iwate University, Japan)

17:00 ***A Radial Line Curl Array Antenna Radiating Gaussian Beam for 24-GHz-Band Fixed Wireless Power Transmission***

Yuto Kihara (Institute of science Tokyo, Japan); Gen Nakayama and Takashi Tomura (Institute of Science Tokyo, Japan)

17:20 ***Decoupling of Antenna and Arrays Using Meta-Surface Polarization-Rotators***

Luyu Zhao, Jiafeng Ge and Haoxuan Li (Anhui University, China); Zexing Fan (Anhui Lambda Science and Technology Corporation Limited, China)

3C4: [OS22] Recent Advancement of Microwave, Millimeter Wave, and Terahertz Wave Circuits and Applications

Room C

Chairs: Takuichi Hirano (Tokyo City University, Japan), Satoshi Yoshida (Ryukoku University, Japan)

15:40 ***Development of End-Fire 60-GHz-Band 2×2 Digital Beam Forming Antenna for Built-in Mobile Devices***

Takehiro Yamaki and Satoshi Yoshida (Ryukoku University, Japan)

16:00 ***Measurement of Principle 300 GHz Antenna for Array Antenna Module***

Nagahiro Abe, Takuma Nishimura, Hikaru Watanabe, Ichiro Somada, Takumi Nagamine, Akimichi Hirota and Yuta Sugiyama (Mitsubishi Electric Corporation, Japan); Kenichi Okada (Tokyo Institute of Technology, Japan)

16:20 ***Terahertz Sensing Using an CMOS-RFIC with on Chip Patch Antenna***

Ichiro Somada, Yuki Tsukui and Akihito Hirai (Mitsubishi Electric Corporation, Japan); Akinori Taira (Mitsubishi Electric Corp., Japan); Kazuaki Ishioka, Nagahiro Abe and Koji Yamanaka (Mitsubishi Electric Corporation, Japan)

16:40 ***Stretchable Reconfigurable Intelligent Surfaces with Dynamic Reflection Beam Width Control Functionality at Terahertz Frequency Band***

Yuki Tankawa (The University of Osaka, Japan); Yuto Kato (National Institute of Advanced Industrial Science and Technology, Japan); Yosuke Nakata and Atsushi Sanada (The University of Osaka, Japan)

17:00 ***A Novel Varactor-Tuned Filtenna Array with Frequency Agile and Beam Steering Functions***

Masataka Ohira (Doshisha University, Japan); Kazusa Watanabe and Zhewang Ma (Saitama University, Japan); Hiroyuki Deguchi (Doshisha University, Japan)

17:20 ***SDR-Based Propagation Measurements in Indoor Corridors***

Grant Lewis M Bulaong and Takuichi Hirano (Tokyo City University, Japan)

3D4: [OS10] Advanced Techniques for Expanding Millimeter-Wave/Terahertz Network Coverage

Room D

Chairs: Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South)), Minseok Kim (Niigata University, Japan)

15:40 ***Near-Field Reflector-Assisted Indoor Dual-Beam MIMO Capacity Analysis at Sub-THz Bands***

Minghe Mao and Minseok Kim (Niigata University, Japan)

16:00 ***Wireless Coverage Enhancement via EM Scattering Redistribution***

Wonjeong Jo and Hyunjae Shin (Pohang University of Science and Technology (POSTECH), Korea (South)); Donggeun An and Myoungsun Kim (Pohang University of Science and Technology, Korea (South)); Daehyeon Kim (POSTECH, Korea (South)); Youngno Youn (Incheon National University, Korea (South)); Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

16:20 ***Experimental Evaluation of Zone Plate Reflector for 300 GHz Coverage Enhancement***

Cong Minh Hieu Le, Hang Song, Nopphon Keerativoranan and Andrey S Andrenko (Institute of Science Tokyo, Japan); Minghe Mao and Minseok Kim (Niigata University, Japan); Jun-ichi Takada (Institute of Science Tokyo, Japan)

16:40 ***Inverse-Designed Holographic Surfaces for Multi-Focus Spatial Beamforming with Flexible Focal Region and Polarization Control***

Jihwan Lee (Pohang University of Science and Technology (POSTECH), Korea (South)); Sirous Bahrami (Pohang University of Science and Technology, Korea (South)); Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

17:00 ***A Reconfigurable Multi-Band Radio-Wave Absorber for Beyond 5G/6G Applications***

Sangyeop Lee and Motohiro Takayasu (Institute of Science Tokyo, Japan); Shinsuke Hara (National Institute of Information and Communications Technology, Japan)

17:20 ***Octave-Bandwidth Resistive Absorber for Multi-Band Radar and Communication Systems***

Youngno Youn (Incheon National University, Korea (South)); Daehyeon Kim (POSTECH, Korea (South)); Donggeun An (Pohang University of Science and Technology, Korea (South)); Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

3E4: [OS16] Advanced Antenna and RF Technologies for Satellite Communications and Remote

Sensing (UNIST RRC Special Session)

Room E

Chair: Gangil Byun (Ulsan National Institute of Science and Technology (UNIST), Korea (South))

15:40 ***W-Band Circularly Polarized Antenna Array Using Sequentially Coupled Feed Structure for Satellite Communications***
Chang Hee Lee (Ulsan National Institute of Sicence and Technology (UNIST), Korea (South)); Gangil Byun (Ulsan National Institute of Science and Technology (UNIST), Korea (South))

16:00 ***A 28-GHz GaN Front-End Module with a Deep Back-off Doherty Power Amplifier***
Sangjin Yoo and Ockgoo Lee (Pusan National University, Korea (South))

16:20 ***A 5.74-8.02 GHz Area-Efficient and Low-Noise CMOS Cross-Coupled LC-VCO***
Hyogyoung An, Hyeonjun Nam, Sungjin Kim and Heein Yoon (Ulsan National Institute of Science and Technology (UNIST), Korea (South))

16:40 ***A Systematic Study of Field Electron Emission Properties of MXene Film for Cold-Cathode Applications***
Si Eun Han and Jaeeun Park (Ulsan National Institute of Science and Technology (UNIST), Korea (South)); Mincheal Kim and EunMi Choi (UNIST, Korea (South)); Jun Yeop Lee and Soon-Yong Kwon (Ulsan National Institute of Science and Technology (UNIST), Korea (South))

17:00 ***Interface Carbon Defect Reduction in SiC Oxides for Reliable SiC RF Devices***
Yeong Jin Ahn, Yun Ho Lee, Su Hyun Park, Jeong Wook Kim and Cheul Hyun Yoon (POSTECH, Korea (South)); Byoung Don Kong (Pohang University of Science and Technology & POSTECH, Korea (South))

17:20 ***Dual-Output RF Energy Harvester with Adaptive Energy Buffering for Enhanced Power Availability Under Intermittent Input for PPG Sensors***
Mun-Jung Cho, Seung-Ju Lee, Yeon-Woo Jeong, Jong-Hun Kim, Min-Sik Kim, Myeong-Ho Kim, Geon Kim, Min-Gyu Jeong and Dong-Chan Lee (Pohang University of Science and Technology (POSTECH), Korea (South)); Se-Un Shin (POSTECH, Korea (South))

Wednesday, October 29 15:40 - 17:20

3F4: [OS23] IEEE AP-S and ISAP 2025 Young Professional Special Session

Room F

Chairs: Hasan Abbas (University of Glasgow, United Kingdom (Great Britain)), Takashi Tomura (Institute of Science Tokyo, Japan)

15:40 ***Design of a Folded Reflectarray Antenna with High Aperture Efficiency and Low Sidelobes***
Makoto Sano (Yokohama National University, Japan)

16:05 ***Study on Materials for Weight Reduction of Lens Antennas for HAPS Ground Stations***
Takuya Okura and Hiroyuki Tsuji (National Institute of Information and Communications Technology, Japan)

16:30 ***Low Loss and Permittivity Glass for Electronic Packaging Applications***
Rocio Rodriguez-Cano (Aalborg University, Denmark); Michael T Lanagan (The Pennsylvania State University, USA)

16:55 ***Radar Fusion for Enhanced Resident Monitoring in Long-Term Care Facilities***
Hajar Abedi and Ahmad Ansariyan (University of Waterloo, Canada)

Thursday, October 30

Thursday, October 30 9:00 - 10:40

4A1: Reflector, Reflectarray and Lens Antennas

Room A

Chairs: Hiroyasu Sato (Tohouku University, Japan), Ick-Jae Yoon (Chungnam National University, Korea (South))

9:00 ***Design and Analysis of Deployable Mesh Reflector Antennas for Satellite Applications***
Changhyeon Im and Hosung Choo (Hongik University, Korea (South))
(Invited Paper)

9:40 ***A Beam-Forming Method for 1-Bit Time-Modulate Reflectarray at Carrier Frequency***
Xianbo Cao (Xidian University, China); Wen Wu (Tohoku University, Japan); Xiaosong Liu, Tao Hong and Wen Jiang (Xidian University, China)

10:00 ***Design and Experimental Verification of SF6-Gas Infilled Dual-Reflector Antenna for HPM System***
Dong-Hoon Lee (Chungnam National University, Republic of Korea, Korea (South)); Wonkyo Kim (Chungnam National University, Korea (South)); Min-Seok Cha (Chung-Nam National University, Korea (South)); Junyeon Kim and Donggeun Seo (Agency for Defense Development, Korea (South)); Ick-Jae Yoon (Chungnam National University, Korea (South))

10:20 ***New Foaming 3D Printing Filaments with Adjustable Low Permittivity for Printing Gradient Index (GRIN) Lens Antennas***
Oscar Moschner, Volker Wienstroer, Markus Heinrichs and Rainer Kronberger (TH Cologne University of Applied Sciences, Germany)

4B1: [OS01] Advanced Antenna and EMC Measurement Technologies for Microwave and Millimeter Wave Systems

Room B

Chairs: Xiaoming Chen (Xi'an Jiaotong University, China), Kun Li (The University of Electro-Communications, Japan)

9:00 ***Experimental Verification of OTA Testing Method for Test Zone Extension***
Takumi Omoto and Kazuhiro Honda (University of Toyama, Japan); Kun Li (The University of Electro-Communications, Japan)

9:20 ***RCS Measurements of Single Parabolic Cylindrical Compact Range with Linear Array Feed***
Ke Yang, Zhengpeng Wang and Zhiming Luo (Beihang University, China)

9:40 ***Interpolation Techniques for Sparse Spherical near-Field Measurements: a Comparative Study***
Kitiphon Sukpreecha, Titipong Lertwiriyaprapa, Danai Torrungrueng and Kittisak Phaebua (King Mongkut's University of Technology North Bangkok, Thailand)

10:00 ***Fast Nonlinear Reconstruction for Radiation Patterns in Reverberation Chamber with Full Data***
Mengsheng Wang and Kuiwen Xu (Hangzhou Dianzi University, China); Fangyun Peng (Xian Jiaotong University, China); Xiaoming Chen (Xi'an Jiaotong University, China)

10:20 ***Open-Boundary Quad-Ridged Horn Antenna Loaded with Absorbing Materials***
Miaoshan Song and Zhengpeng Wang (Beihang University, China); Guokai Jiang (China Automotive Technology and Research Center Co. Ltd., China)

4C1: [OS09] Recent Advances and Applications of Metamaterials and Metasurfaces

Room C

Chairs: Yongjune Kim (The University of Suwon, Korea (South)), Ryuji Kuse (Kumamoto University, Japan)

9:00 ***Constitutive Method for Topological Waveguides Using Two-Dimensional T- and π-Type Rhombic Unit Cell Structures***
Tsutomu Nagayama (Kagoshima University, Japan)

9:20 ***Leveraging Symmetries for the Dispersion Analysis of Open 2D-Periodic Structures***
Jesus Maria Jimenez-Suarez (KTH Royal Institute of Technology, Sweden); Sergio Garcia-Martinez (Universidad Politécnica de Madrid, Spain); Francisco Mesa (University of Seville, Spain); Oscar Quevedo-Teruel (KTH Royal Institute of Technology, Sweden)

9:40 ***Forward Scattering Enhancement of Monopole Antenna with Huygens' Metasurface***
Hiroshi Hashiguchi and Naobumi Michishita (National Defense Academy, Japan)

10:00 ***Independent Control of Dual-Polarized Beams in Reflectarray Antenna with Low Cross-Polarization Design***
Yosuke Maruno (Kumamoto University, Japan); Makoto Sano (Yokohama National University, Japan); Takeshi Fukusako and Ryuji Kuse (Kumamoto University, Japan); Kazuma Tomimoto, Toshiki Hozen and Tomonori Ikeda (Softbank Corp., Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan)

10:20 ***Prototyping of the Electromagnetic Scattering Sheet in 300 GHz Band***
Lira Hamada (National Institute of Information and Communications Technology, Japan); Yasutaka Murakami (UEC, Japan); Jerdvisanop Chakarothai and Katsumi Fujii (National Institute of Information and Communications Technology, Japan)

4D1: [OS03] Underwater Wireless Technology Using Electromagnetic Waves

Room D

Chairs: Miyuki Hirose (Kyushu Institute of Technology, Japan), Nozomu Ishii (Niigata University, Japan)

9:00 ***Maximum Distance Verification for Undersea Radio Frequency Communication Between Two Loop Antennas Using Wavelet-OFDM***
Juan Carlos Rosales Rodriguez, Tohlu Matsushima, Yuki Fukumoto, Kazuhiro Eguchi and Daisuke Nakayama (Kyushu Institute of Technology, Japan)

9:20 ***Underwater Robot Navigation Under Sea Ice Using Very Low Frequency Electromagnetic Waves in the Polar Regions***
Hiroshi Yoshida (JAMSTEC & IACE, Japan); Masaharu Takahashi and Shinnosuke Sakaya (Chiba University, Japan); Nozomu Ishii (Niigata University, Japan); Qiang Chen (Tohoku University, Japan)

9:40 ***Electromagnetic Propagation in Seawater and Hybrid Air-Seawater Environments Using a Hollow Cylindrical Concrete Structure***
Qiaowei Yuan (Tohoku Institute of Technology, Japan)

10:00 ***Applicable Range of Pseudo-Scale Models for Air-Sea Two-Layer Problems Using Sommerfeld Integral***
Akio Sejimo and Nozomu Ishii (Niigata University, Japan)

10:20 ***Scaled Transmission Measurement Between Dipole Antennas in Proximity to PVC Pipe in Seawater***
Naoki Kuzu and Nozomu Ishii (Niigata University, Japan); Masaharu Takahashi (Chiba University, Japan); Qiaowei Yuan (Tohoku Institute of Technology, Japan); Qiang Chen (Tohoku University, Japan); Hiroshi Yoshida (JAMSTEC & IACE, Japan)

4E1: Millimeter-wave and Terahertz Antennas I

Room E

Chair: Shintaro Hisatake (Gifu University, Japan)

9:00 ***Photonic-Integrated InGaAs/SiC UTC-PD-Fed Microstrip Stub Array Antenna for 300-GHz Fan-Beam Generation***
Ming Che, Yoshiki Kamiura, Ryo Doi and Kazutoshi Kato (Kyushu University, Japan)

9:20 ***A Tile Type V-Band 4-Element Circular Polarized Patch Array Antenna with Matching Circuit***
Welday Gerezgiher Berhe, Koki Furuuchi, Tomoyuki Furuichi, Satoshi Tsukamoto and Noriharu Suematsu (Tohoku University, Japan)

9:40 ***An Experimental Verification of 300-GHz Band Laminated Resonator Antenna***
Jihoon Kim, Hiroshi Uchimura and Nobuki Hiramatsu (Kyocera Corporation, Japan); Kunio Sakakibara and Yoshiki Sugimoto (Nagoya Institute of Technology, Japan)

10:00 ***Expansion of Sheet LAN Alignment Margin by Using Branched Structure Waveguide Probe***

Shintaro Nakamura, Hayato Sasaki and Akihiko Hirata (Chiba Institute of Technology, Japan)

10:20 ***Contactless BGA Interconnection of Gap Waveguide MLW Slot Array Antenna for E-Band Automotive Radar Applications***
Juan Luis Albadalejo Lijarcio (Chalmers University of Technology, Sweden & Gapwaves AB, Sweden); Abbas Vosoogh and Carlo Bencivenni (Gapwaves AB, Sweden); Ashraf Uz Zaman (Chalmers University of Technology, Sweden)

4F1: Part1: Technical session [OS25] Highlighting Research Achievements Beyond Gender

Room F

Chair: Fauziahanim Che Seman (Universiti Tun Hussein Onn Malaysia, Malaysia)

9:00 ***Phased Arrays in Waveguide Technology for Low Earth Orbit (LEO) Active Payloads***
Esteban Menargues and Santiago Capdevila (SWISSto12, Switzerland); María García-Vigueras (IETR-INSA Rennes, France)

9:25 ***Wide-Power-Range RF Harvester with Constant Output Voltage for Autonomous Sensing Systems***
Lei Guo, Kuo Guan, Xuwang Li and Mengxi Yan (Dalian University of Technology, China); Wenwen Yang (Nantong University, China); Ke Wu (Polytechnique Montréal, Canada)

9:50 ***Design of Triple Band Microstrip Antenna for 5G Network Applications in Indonesia***
Nadya Rizka Salsabila (University of Indonesia, Indonesia); Fitri Yuli Zulkifli (Universitas Indonesia, Indonesia)

10:15 ***Design Method of Normal-Mode Helical Antenna at 10MHz for Undersea Radio Communication***
Muhammad Syamim Fitri Othman and Kamilia Kamardin (Universiti Teknologi Malaysia, Malaysia); Yoshihide Yamada (Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia); Idnin Pasya (University of Aizu, Japan); Nozomu Ishii (Niigata University, Japan); Masaharu Takahashi (Chiba University, Japan)

Thursday, October 30 11:00 - 12:40

4A2: Antenna Theory and Design

Room A

Chairs: Masataka Ohira (Doshisha University, Japan), Naoki Sakai (Kanazawa Institute of Technology, Japan)

11:00 ***Design of High Gain and Low Scattering Antennas***
Ying Liu (Xidian University, China)
(Invited Paper)

11:40 ***Design of Low-Profile Dual-Polarized Metasurface Antenna Using Characteristic Mode Analysis***
Haoyang Chen and Xiang Zhang (University of Science and Technology of China, China); Jun Gu (University of Science and Technology of China, China & USTC, China); Weidong Chen (University of Science & Technology of China, China); Chang Chen (University of Science and Technology of China, China)

12:00 ***Circular Polarization Characteristics of a High Impedance Rampart-Type Microstrip Line Array Antenna***
Fumiaki Matsukura, Keisuke Noguchi, Kenji Itoh and Naoki Sakai (Kanazawa Institute of Technology, Japan)

12:20 ***A Dual-Band High-Impedance Antenna for WPT Applications***
Kei Takahashi and Keisuke Noguchi (Kanazawa Institute of Technology, Japan)

4B2: [OS01] Advanced Antenna and EMC Measurement Technologies for Microwave and Millimeter Wave Systems

Room B

Chairs: Xiaoming Chen (Xi'an Jiaotong University, China), Kun Li (The University of Electro-Communications, Japan)

11:00 ***Fiber Bragg Grating-Assisted Differential EO Sensing for 450 GHz Antenna near-Field Measurement***
Wataru Kumazawa, Kento Ishihara, Daiki Kojima, Shinya Ochi, Yusuke Tanaka and Shintaro Hisatake (Gifu University, Japan)

11:20 ***On the Robustness of TwIST-Based Compressed Sensing for Spherical near-Field Measurements***
Fangyun Peng (Xian Jiaotong University, China); Xiaoming Chen (Xi'an Jiaotong University, China)

11:40 ***Reduction of Planar near-Field Truncation Error Using a Three-Dimensional Optimization Method***
Junhao Zheng (China); Guan-Long Huang (Foshan University, China); Xiaoming Chen (Xi'an Jiaotong University, China)

12:00 ***Over-the-Air Testing of BAN Diversity Antennas in 4G Downlink Frequency Band***
Yuhei Oda and Haruto Utsushigawa (The University of Electro-Communications, Japan); Takumi Omoto and Kazuhiro Honda (University of Toyama, Japan); Kun Li (The University of Electro-Communications, Japan)

12:20 ***A Suitable Metric for Maximum Received Power of Deep-Tissue Implantable Devices***
Maoyuan Li (Institute of Science Tokyo, Japan); Mingxiang Gao (EPFL, Switzerland & IT'IS Foundation, Switzerland); Anja K. Skrivervik (EPFL, Switzerland); Takahiro Aoyagi (Institute of Science Tokyo, Japan)

4C2: [OS26] Electromagnetic field analysis and industry applications

Room C

Chairs: Kenichi Ishida (Kyushu Sangyo University, Japan), Yukihisa Suzuki (Tokyo Metropolitan University, Japan)

11:00 ***Reconstruction of a Dielectric Cylinder by Applying a Physics-Informed Neural Network***
Kenichi Ishida and Tsuyoshi Matsuoka (Kyushu Sangyo University, Japan)

11:20 ***Physics-Informed Neural Network Formulation for Electromagnetic Beam Propagation***
Kazuhiro Fujita (Saitama Institute of Technology, Japan)

11:40 ***Analysis of Resonator Structure Constructed by Two-Dimensional MDM Plasmonic Waveguide Using Transmission Line Circuit Model***
Yoshihiro Naka (University of Miyazaki, Japan); Masahiko Nishimoto (Kumamoto University, Japan); Mitsuhiro Yokota (University of Miyazaki, Japan)

12:00 ***Stability Condition of the Three-Dimensional FDTD Method Based on the Iterated Crank-Nicolson Scheme***
Koshin Miwatashi and Jun Shibayama (Hosei University, Japan)

12:20 ***Evaluation of Vortex Dichroism Spectroscopy Using MoM for Spiral Thin Conductor Model***
Hideki Kawaguchi (Muroran Institute of Technology, Japan); Koichi Matsuo (Hiroshima University, Japan); Chenxu Wang (National Institute for Fusion Science, Japan); Masahiro Katoh (Institute of Molecular Science, China); Hiroaki Nakamura (National Institute for Fusion Science & Nagoya University, Japan)

4D2: [OS03] Underwater Wireless Technology Using Electromagnetic Waves

Room D
Chair: Nozomu Ishii (Niigata University, Japan)

11:00 ***Design of an LCC-s Wireless Power Transfer System for Sea Water with Eddy Current Loss***
Sungryul Huh (Korea Advanced Institute of Science and Technology (KAIST) & COILS, Korea (South)); Seongho Woo, Hyunsoo Lee, Seungmin Ha and Seungyoung Ahn (Korea Advanced Institute of Science and Technology, Korea (South))

11:20 ***Loss Analysis of Wireless Power Transfer System Using Litz Wire Coil in Seawater***
Sora Anzai (Tokai University, Japan); Atsuya Mizota (Tokai Univ, Japan); Mamiko Inamori (Tokai University, Japan)

11:40 ***A Study of Antenna Configuration for Underwater MIMO Communication Systems Based on Capacity Analysis***
Miyuki Hirose (Kyushu Institute of Technology, Japan)

12:00 ***An Electrically Small Unidirectional Underwater Antenna Using a Huygens Source***
Takashi Kawamura (Sony Corporation, Japan)

12:20 ***Normal-Mode Helical Antenna Design at 1 MHz for Undersea Application***
Badrul Amin Azahari (Universiti Teknologi Malaysia & Malaysia-Japan International Institute of Technology, Malaysia); Yoshihide Yamada (Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia); Kamilia Kamardin (Universiti Teknologi Malaysia, Malaysia); Idnin Pasya (University of Aizu, Japan); Nozomu Ishii (Niigata University, Japan); Masaharu Takahashi (Chiba University, Japan)

4E2: [OS12] Small and Low-Profile Antennas

Room E
Chairs: Chai-Eu Guan (Nagasaki University, Japan), Keisuke Noguchi (Kanazawa Institute of Technology, Japan)

11:00 ***Design of a Low-Profile Wi-Fi 7 MIMO Antenna for a Laptop Applications***
Wei-Zhan Zeng and Hsin-lung Su (National Pingtung University, Taiwan)

11:20 ***Impact of Loss Resistance on the Radiation Efficiency of Small Antennas Excited by Folded Structure***
Daiki Miyamori and Keisuke Noguchi (Kanazawa Institute of Technology, Japan); Keisuke Fujita (Maebashi Institute of Technology, Japan)

11:40 ***Simulation of Pattern Reconfigurable Antenna Composed of Patch and Monopole Elements***
Naoki Takamura, Shimpei Akimoto and Kengo Nishimoto (Mitsubishi Electric Corporation, Japan)

12:00 ***Design of a Metasurface Reflector to Enhance the Axial Ratio Magnitude of a Compact Crossed-Dipole Antenna***
Chai-Eu Guan and Takafumi Fujimoto (Nagasaki University, Japan)

12:20 ***Characteristics of Inverted L Antenna Fabricated with Inkjet Printed PET Sheet***
Tsuyoshi Matsuoka (Kyushu Sangyo University, Japan); Mitsuo Taguchi (Nagasaki University, Japan)

4F2: Part2: D&I session "Sharing Ideas on Gender Innovation"

Room F
Chair: Fauziahanim Che Seman (Universiti Tun Hussein Onn Malaysia, Malaysia)

Thursday, October 30 13:40 - 15:20

Pos3: Poster Session 3

Room: Event hall

Pos3.1 ***The Degree of Spatial Coherence of Crossly Polarized EM-Waves in Continuous Random Medium***
Yukihisa Nanbu (National Institute of Technology, Ariake College, Japan); Mitsuo Tateiba (Kyushu University, Japan)

Pos3.2 ***Noise Source Separation in Pulse-Frequency Modulation-Controlled DC-DC Converters Using near-Field Features***
Hiroyasu Sano (Tokyo Metropolitan Industrial Technology Research Institute, Japan); Kenta Umebayashi (Tokyo University of Agriculture and Technology, Japan); Satoshi Suzuki, Hidekatsu Sasaki and Yasuaki Kaneda (Tokyo Metropolitan Industrial Technology Research Institute, Japan)

Pos3.3 ***Distributing the Aperture: Signal Localization with a Space-Based Extremely Large Array***
Dany Mestas and Thomas Delamotte (Bundeswehr University Munich, Germany); Hervé Legay (Thalès Alenia Space, France); Raúl Regada Alvarez (Thales Alenia Space, Spain); Andreas Knopp (Bundeswehr University Munich, Germany)

Pos3.4 ***Experimental Study of Polarimetric Scattering Diversity Effect on MIMO Imaging Radar***

Dion Hayu Fandiantoro, Takeshi Fukusako and Ryuji Kuse (Kumamoto University, Japan); Kazuma Tomimoto, Toshiki Hozen and Tomonori Ikeda (Softbank Corp., Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan)

Pos3.5 ***Broadband Vivaldi Antenna Design with in-Band RCS Suppression***

Yuan-Chang Hou and Yu-Lun Huang (National Ilan University, Taiwan)

Pos3.6 ***Quasi-Analytical Model for Space-Time Periodic Structures Controlled by Diodes***

Carlos Molero and Juan Rafael Sanchez-Martinez (University of Granada, Spain); Mario Pérez-Escribano (Universidad de Málaga, Spain); Pablo Padilla (University of Granada, Spain); Antonio Alex-Amor (University of Pennsylvania, USA)

Pos3.7 ***Design of a Microstrip Antenna Array Fed by Inclined Slots on the Broad Wall of a Rectangular Waveguide with Standing-Wave Excitation for 45-Degree Inclined Linear Polarization***

Kenshi Inoue and Yuichi Kimura (Saitama University, Japan)

Pos3.8 ***A C/Ka-Band Groove-Loaded Spline Taper Horn with Low-Cross-Polarization***

Hiroki Nishida, Masataka Ohira and Hiroyuki Deguchi (Doshisha University, Japan)

Pos3.9 ***Estimation of the Number of Signals Using High SNR-Extended MEEV Considering Amplitude and Phase Errors in Antenna Elements***

Yuto Nakajima, Yoshiki Takahashi and Tadashi Oshima (Mitsubishi Electric Corporation, Japan)

Pos3.10 ***4-Subarray MIMO Monopole Antenna with Beam Steering Function***

Seiya Katsuragawa and Kazuhiro Honda (University of Toyama, Japan)

Pos3.11 ***Effects of Magnitude Dynamic Range Constraints on MIMO Wireless Power Transfer Efficiency***

Young-Seok Lee, Jungsuek Oh and Sangwook Nam (Seoul National University, Korea (South))

Pos3.12 ***Toward ADAS Full Autonomy: "Shift-Left" Solution for in-Cabin Safety Radar Development***

Tung Nguyen (Ansys Inc, Japan); Arien Sligar (Ansys Inc., USA)

Pos3.13 ***GNSS Multi-Band Signal Parameter Estimation Method Using Array Signal Processing***

Seina Otani (Meiji University, Japan); Tsubasa Terada and Ryuhei Takahashi (Mitsubishi Electric Corporation, Japan); Takeshi Amishima (Meiji University, Japan)

Pos3.14 ***Quantum Annealing-Based Optimization of on-Vehicle Antenna Placement***

Yuika Nakayama (University of Saga, Japan); Yuto Shimada and Eisuke Nishiyama (Saga University, Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan); Toshiki Hozen and Kazuma Tomimoto (Softbank Corp., Japan); Ichihiko Toyoda (Saga University, Japan)

Pos3.15 ***Research on RCS Reduction Based on Electromagnetic Surface***

Zhichao Miao (Harbin Institute of Technology, China); Wei Chen (China Airborne Missile Academy, China); Min Zhang (Harbin Institute of Technology wei hai, China)

Pos3.16 ***High-Selectivity Frequency-Selective Absorber with an Ultra-Narrow Upper Transition Band***

Shen Meng, Qingxin Guo, Jinbo Liu and Zengrui Li (Communication University of China, China)

Pos3.17 ***Experimental Validation of 2.4 GHz Microwave Sensor for Hepatitis B Virus Detection***

Yusnita Rahayu, Meilita Kurniati, Anhar Anhar, Huriatul Masdar and Maya Savira (Universitas Riau, Indonesia)

Pos3.18 ***A Dual-Band Circularly Polarized Antenna Architecture for Wearable Products***

Haohuan Wang (Dalian University of Technology, China); Shaoshu Sha and Yan Shi (Xiaomi Corporation, China); Hui Li (Dalian University of Technology, China)

Pos3.19 ***Design of Patch Phased Array Antenna with Multi-Layer Dielectric in Metal Cavity***

Yao Yang, Lingkai Zhang, Guangwei Yang and Jian-ying Li (Northwestern Polytechnical University, China)

Pos3.20 ***Time-Domain Gating Optimization for Stationary Free-Space Radome Measurement***

Ji-Min Park and Kyoung Hun Kim (Gyeongsang National University, Korea (South)); Wang-Sang Lee (Gyeongsang National University (GNU), Korea (South))

Pos3.21 ***Reflection Properties of Meta-Surface Reflector with Short Posts***

Shinya Endo and Mitoshi Fujimoto (University of Fukui, Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan); Kazuma Tomimoto and Tomonori Ikeda (Softbank Corp., Japan)

Pos3.22 ***Beamforming Performance of E-MIMO Approach from near-Field to Far-Field in Array Antennas***

Jintai Wu and Qiaowei Yuan (Tohoku Institute of Technology, Japan)

Pos3.23 ***Design of Expandable Transmitter for Extended Range in Omnidirectional Wireless Power Transfer***

Seong-Jin Kim (KAIST, Korea (South)); Yeong-Ju Seo (Korea Advanced Institute of Science and Technology, Korea (South)); Hyo-Won Lee (KAIST, Korea (South)); Sungjun Cho (Korea Advanced Institute of Science and Technology, Korea (South)); Jong-Won Yu (KAIST, Korea (South))

Pos3.24 ***3D Positioning Method of Human-Body Using SISO-CSIs Among Multiple Wi-Fi Devices***

Daiki Nagao, Kentaro Kikuta, Naoki Honma and Kentaro Murata (Iwate University, Japan); Takeshi Nakayama and Shoichi Iizuka (Panasonic Corporation, Japan)

Pos3.25 ***Analytical Optimization of Metal-Pattern Metasurfaces Using Equivalent Circuit Models***

Ilyes Moufid, Paula Aguilera and Justine Labat (CEA, France)

Pos3.26 ***Design of an Ultrawide-Angle 77 GHz Transmission Window for Radome Supporting Both TE- and TM-Polarizations***

Shuang Zeng, Shi Pu and Ning Xu (Wuhan University of Technology, China)

Pos3.27 ***Miniaturized Metasurface Using Split Ring Resonator with Double Interdigital Structure***

Sukreechat Yenmee (KMUTNB, Thailand); Pongsathorn Chomtong (King Mongkut's University of Technology North Bangkok, Thailand); Akkarat Boonpoonga (KMUTNB, Thailand); Prayoot Akkaraekthalin (King Mongkut's University of Technology North Bangkok, Thailand)

Pos3.28 ***A W-Band Planar Luneburg Lens Antenna with Multiple Sum and Difference Beams***

Jingrui Xu (Harbin Institute of Technology, China); Nannan Wang (Harbin Institude of Technology, China); Pengcheng Wang, Guowei Xu and Dongqing Liu (Harbin Institute of Technology, China)

Pos3.29 ***Multi-Port Center-Feed Slotted Waveguide Antenna Array for Power Combining***

Chuanming Zhu, Haikun Jia, Wei Deng and Baoyong Chi (Tsinghua University, China)

Pos3.30 ***Post-Wall Waveguide Series-Fed Sidelobe-Suppression Slot Subarray Antenna for Millimeter-Wave Radar***

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

Pos3.31 ***Dielectric Flat 3D-Printed Luneburg Lens with Circular Polarization for Satellite Applications***

Kevin Pulgar and Marco Cruz (Pontificia Universidad Católica de Valparaíso, Chile); Francisco Pizarro (Pontificia Universidad Catolica de Valparaiso, Chile)

Pos3.32 ***Millimeter-Wave Dual-Polarized Patch Antenna with Low Cross-Polarization for 5G Applications***

Keshuang Feng and Xin Xu (Southeast University, China)

Pos3.33 ***Compact Coplanar Waveguide Fed Two-Port Patch Antenna Using Thin Flexible Substrate for 26/28GHz Millimeter-Wave Band***

Ainur Fasihah Mohd Fazilah (Universiti Malaysia Perlis, Malaysia); Saidatul Norlyana (Universiti Malaysia Perlis & Advanced Communication Engineering Centre of Excellence (CoE), Malaysia); Azremi Abdullah Al-Hadi, Mohd Syahir Ahmad Azhari, Fwen Hoon Wee and Surentiran Padmanathan (Universiti Malaysia Perlis, Malaysia); Che Muhammad Nor Che Isa (University of Malaysia Perlis, Malaysia); Yen San Loh (Jabil Circuits Sdn. Bhd., Malaysia); Muhammad Syahir Mahyuddin, Lai Ming Lim and Zambri Samsudin (Jabil Circuit Inc, Malaysia); Idris Mansor (Jabil Circuits Sdn. Bhd., Malaysia)

Pos3.34 ***Compact Dual-CP Waveguide Polarizer with a Wire-Grating Dual Feed***

Martin Simak and Ding-Bing Lin (National Taiwan University of Science and Technology, Taiwan); Pavel Hazdra (Czech Technical University in Prague, Czech Republic)

Pos3.35 ***Design Methodology for Optimized Variable-Thickness Airborne Radomes***

Min-Seok Cha (Chung-Nam National University, Korea (South)); Dong-Hoon Lee (Chungnam National University, Republic of Korea, Korea (South)); Jong-Gyun Baek, Dong-Kyun Lee and Youngwan Kim (LIG Nex1, Korea (South)); Ick-Jae Yoon (Chungnam National University, Korea (South))

Pos3.36 ***A Study of Ceramics-Less Dual-Band Antenna for GNSS Systems Based on MSA Using Printed Coils***

Kenta Tsurubuchi (YOKOWO Company Limited, Japan); Takeshi Sampo (Yokowo Co Ltd, Japan); Kenichi Yamada (YOKOWO CO. LTD, Japan); Hiroshi Iwai (Yokowo, Japan); Yuichi Kimura (Saitama University, Japan)

Pos3.37 ***Radiation Characteristics of Wullenweber Antenna with ULPIL Element Antenna***

Mitsuo Taguchi (Nagasaki University, Japan); Haruo Kawakami (Later Sophia University, Japan)

Pos3.38 ***A Novel Coplanar Waveguide Feeding Method for Tapered Slot Antennas***

Mayumi Matsunaga (Shizuoka University, Japan)

Pos3.39 ***Multi-Activation Fluid Antenna System with a Single RF Chain for Fast Multi-User Access***

Jiewei Huang (Shenzhen Technology UniversitySHEN, China); Huan Meng and Baiyang Liu (Shenzhen Technology University, China); Kin Fai Tong (Hong Kong Metropolitan University, Hong Kong)

Pos3.40 ***Study on Implementation of Vehicle Antenna for NTN Applications***

Tomonori Ito and Keisuke Noguchi (Kanazawa Institute of Technology, Japan)

Pos3.41 ***Slot 4G MIMO Dual-Antenna for Metal-Frame Smartphones***

Shu-Chuan Chen (National Defense University Chung Cheng Institute of Technology, Taiwan & Chung Cheng Institute of Technology, Taiwan); Kuang-Hsiung Tan (National Defense University & Chung Cheng Institute of Technology, Taiwan); Yung-Lung Lee (National Defense University Chung Cheng Institute of Technology, Taiwan)

Pos3.42 ***Metasurface Holography with Arbitrary-Bit Discrete Phase***

Zeming Kong, Jiaran Qi, Yiding Liu and Wentao Liang (Harbin Institute of Technology, China); Yizhi Zhang (Harbin Institute of Technolog, China); Wang Yuzhong, Mingshuang Hu, Yongjian Ma, Qirui Yu and Yu Axiang (Harbin Institute of Technology, China)

Pos3.43 ***Design of a Double-Layered Varactor-Loaded Dual-Band Microstrip Antenna Fed by an L-Probe with a Miniaturized Shorted and Slitted Element***

Takahito Seta and Yuichi Kimura (Saitama University, Japan)

Pos3.44 ***Dual-Polarized Compact Shared-Aperture Array Antenna with Functional Reuse***

Miao Lv and Guo Weisen (Xidian University, China); Tong Wu (Xi'dian University, China); Zhiya Zhang (Xidian University, China)

Pos3.45 ***Testing LoRa Communication Between Underground and Above Ground Modules***

Patryk Kalkowski and Aleksander Krupa (Gdansk University of Technology, Poland); Mateusz Rzymowski (Gdansk University of Technology & WiComm Center of Excellence, Poland); Luiza Leszkowska, Krzysztof Nyka and Lukasz Kulas (Gdansk University of Technology, Poland)

Pos3.46 ***Antenna Size for Multi-Swath Observation-Oriented Small SAR Satellites***

Ryo Natsuaki (The University of Tokyo, Japan); Michio Takikawa and Hirofumi Saito (Nihon University, Japan); Akira Hirose (The University of Tokyo, Japan)

Pos3.47 ***Fundamental Study on Computational Microwave Imaging Using Conducting-Reflector-Backed Dipole Metasurface***

Nanaho Kawata (Antenna Giken Co, Ltd., Japan & Tohoku University, Japan); Qiang Chen (Tohoku University, Japan)

Pos3.48 ***Adaptive Multiple-Input Multiple-Out Radar Array Beamformer with an Advanced Generalized Sidelobe Canceller***

Cheng-Jie Wang and Ju-Hong Lee (National Taiwan University, Taiwan)

Pos3.49 ***Human Motion Classification Using Multilink Millimeter-Wave Channels***

Yupeng Wang and Minseok Kim (Niigata University, Japan)

Pos3.50 ***Triple-Band Metasurface Absorber***

Qiongyan Lei (Harbin Institute of Technology, China); Xiyao Huang (Harbin Insititute of Technology, China); Shengchang Lan, Yueyi Yuan and Kuang Zhang (Harbin Institute of Technology, China)

Pos3.51 ***Frequency-Selective Polarization Converters Based on CT and CQ Coupling Topologies***

Hang Yuan, Kai-Ran Xiang and Fu-Chang Chen (South China University of Technology, China)

Pos3.52 ***Design of a Flexible Metasurface Absorber Using Textile Materials for X-Band Applications***

In-June Hwang (Korea Research Institute of Standards and Science (KRISS), Korea (South)); Young-Pyo Hong and In-Ho Lee (Korea Research Institute of Standards and Science, Korea (South)); Jinwoo Park (Agency for Defense Development, Korea (South)); Dal-Jae Yun (Korea Research Institute of Standards and Science, Korea (South))

Pos3.53 ***Dual Circularly Polarized Filtering Antenna Using a Quarter Wavelength Resonator***

Dwi Astuti Cahyasiwi (Universitas Muhammadiyah HAMKA, Indonesia); Dian Widi Astuti (Universitas Mercu Buana, Indonesia); Yus Natali (Universitas Telkom, Indonesia); Syah Alam (Universitas Trisakti, Indonesia); Rosalina (Universitas Muhammadiyah HAMKA, Indonesia)

Pos3.54 ***Dielectric Superstrate Design for High-Gain 6x26 Slotted Waveguide Array Antenna***

You Seok Yeoh (Korea Maritime & Ocean University, Korea (South)); Min Cheol Paek, SeungJun Kim and Seong Been Jang (National Korea Maritime & Ocean University, Korea (South)); Kyeong-sik Min (Korea Maritime and Ocean University, Korea (South))

Pos3.55 ***A Low-Cost and Compact 38 GHz SIW Yagi Antenna Array with Integrated Power Divider***

Ming-An Chung, Zhi-xuan Zhang, Jin-Hong Chou, Chia Chun Hsu, Yi-Ju Yao and Chia-Wei Lin (National Taipei University of Technology, Taiwan)

Pos3.56 ***Design of Low RCS Dual Circularly Polarized Antenna Using Characteristic Mode Analysis***

YongQi Cheng, Ziyang Zhang, Pan Yin, Qixin Tang, Lijia Chen and Shengchang Lan (Harbin Institute of Technology, China)

Pos3.57 ***Multi-Axis Bendable Rigid-Flexible X-Band Antenna Array Based on Corrugated Microstrip Circular Patch Antenna***

Gong Chen and Yuyang Chen (National University of Singapore, Singapore); Koen Mouthaan (NUS, Singapore)

Pos3.58 ***Low-Cost, Printed Monopole Antenna for Wi-Fi 8 and 6G Laptop Computers***

Yu-Ting Su and Saou-Wen Su (National Kaohsiung University of Science and Technology, Taiwan)

Pos3.59 ***Wi-Fi 7 MIMO Antennas for Metal-Housing Laptop***

Wen-Shan Chen and Wei-Ren Huang (Southern Taiwan University of Science and Technology, Taiwan)

Pos3.60 ***A Dual-Band Dual-Circularly Polarized Shared-Aperture Microstrip Antenna for LEO Satellite Communications***

Nannan Wang (Harbin Institude of Technology, China); Zixu Tang, Chengye Wang, Pengcheng Wang and Jinghui Qiu (Harbin Institute of Technology, China)

Pos3.61 ***Dual-Band Dual-Polarized Shared Aperture Traveling-Wave Antenna Using Hybrid Dual-Mode Floquet Excitation for Satellite ISAC Systems***

Dongseop Lee and Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

Pos3.62 ***A Coupling-Fed Broadband Multi-Band Annular-Slot Antenna with Omnidirectional Radiation Pattern***

Jing-Yi Zhang, Chaoyang Zhao, Junjie Zhang, Shiyan Wang and Gang Zhang (Nanjing Normal University, China)

Pos3.63 ***Ultrawideband Circularly Polarized Cavity-Integrated EBG-Backed Archimedean Spiral Antenna for IoT Applications***

Bancha Luadang (Rajamangala University of Technology Rattanakosin, Thailand); Pisit Janpangngern (Suranaree University of Technology, Thailand); Chuwong Phongcharoenpanich (King Mongkut's Institute of Technology Ladkrabang, Thailand)

Pos3.64 ***All Metal Inductively Connected Tightly Coupled Array (iTCA)***

Alpha Osman Bah (University of Technology Sydney, Australia & UTS, Australia)

Pos3.65 ***A Compact Size Antenna for Wi-Fi 7 Laptop Applications***

Chow-Yen-Desmond Sim (National Sun Yat-sen University, Taiwan); Ching-Ting Huang (National Taiwan University of Science and Technology, Taiwan); Sz-Jan Liao (National Sun Yat-Sen University, Taiwan)

Pos3.66 ***Novel Partially-Reflective-Surface Design Based on Asymmetric Compact Microstrip Resonant Cells for Wideband Gain Enhancement***

Jhirat Mearnchu (Silpakorn University, Thailand); Danai Torrungrueng (King Mongkut's University of Technology North Bangkok, Thailand)

Pos3.67 ***Improved Reflection Characteristics for Oblique Incidence of Microwave Absorber Acting as an Antenna***

Teru Obata (Tokyo Metropolitan Industrial Technology Research Institute, Japan); Takuji Arima (Tokyo University of Agriculture and Technology, Japan)

Pos3.68 ***Enhancing Realized Gain of LTCC Based Antenna by Combining Radiating Modes***

Maciej Smierzchalski (ATOS, France); Christophe Delaveaud (CEA-LETI, France); Ryo Yokoyama, Shunsuke Abe and Seiji Hidaka (Murata, Japan); Antonio Clemente (CEA-Leti, France)

Pos3.69 ***Non-Contact Detection of Permittivity Variations and a Crack in Plastic Gears for IoT***

Juntaro Hatta, Hitoshi Shimasaki and Daisuke Iba (Kyoto Institute of Technology, Japan)

Pos3.70 ***Analysis of Frequency Characteristics of Human Body Shadowing Loss***

Ayumu Okuhigashi, Yoshiki Nakanishi, Hisato Iwai and Shinsuke Ibi (Doshisha University, Japan)

Pos3.71 ***Wideband Reconfigurable Dual Circularly- Polarized Magnetoelectric Dipole Antenna for Mmwave Satellite Applications***

Arpan Desai (Pandit Deendayal Energy University, India); Heng-Tung Hsu and Yi-Fan Tsao (National Yang Ming Chiao Tung University, Taiwan)

Pos3.72 ***A Measurement of Propagation Variations near the Ground Surface for Wildlife Detection Using 920 MHz Band Radio Waves***

Ryo Matsuda, Makoto Kobayashi, Shunpei Yamaguchi, Koichi Shin and Masahiro Nishi (Hiroshima City University, Japan)

Pos3.73 ***A Dual-Polarized Patch Antenna on LTCC for 6G Upper-Mid Band Antenna-in-Package (AiP) Module***

Eunyoung Park, Sangkil Kim, Gyoungdeuk Kim, Hoyong Kim and Yuna Jeong (Pusan National University, Korea (South))

Pos3.74 ***Millimeter-Wave Wireless Power Transfer Technology for IoT Applications***

Jung Ick Moon (Electronics and Telecommunications Research Institute, Korea (South))

Pos3.75 ***An Antenna Sensor for Radio-Wave-Type Endoscope***

Satoru Shiraishi, Takafumi Fujimoto, Chai-Eu Guan and Toshiyuki Tanaka (Nagasaki University, Japan); Yoko Maemura (University of Nagasaki, Japan)

Pos3.76 ***A Novel DGS-Based Efficient UWB Circular Patch Array Antenna for ISM, WLAN, 5G and IoT***
Tithi Rani (Rajshahi University of Engineering and Technology, Bangladesh); Liton Chandra Paul and Naymaa Rashid (Pabna University of Science and Technology, Bangladesh); Sk A. Shezan (Northern Border University, Saudi Arabia); Md. Ashraful Haque (UTP, Bangladesh); Ali H Alenezi (Northern Border University, Saudi Arabia)

Pos3.77 ***Sustainable Material Selection for 3D-Printed Overlays Applied to ESPAR Antennas***
Bartosz Kamecki, Luiza Leszkowska, Benedykt Sikorski, Krzysztof Nyka and Lukasz Kulas (Gdansk University of Technology, Poland)

Pos3.78 ***A Wireless Strain Sensor with Independent Bi-Directional Sensing Based on a Dual-Band Antenna***
Lei-Jun Siau, Wen-Xi Tan, Jie-Wei Gim, Pei Song Chee, Eng Hock Lim and Jen Hahn Low (Universiti Tunku Abdul Rahman, Malaysia)

Pos3.79 ***Gain Improvement for 2x2 Patch Array Antenna by Using Metamaterial Based***
Peerasan Khamsalee and Auychai Yatongchai (Suranaree University of Technology, Thailand)

Pos3.80 ***Compact Dual-Band Microwave Sensor for Dielectric Sensing Using Complementary C-Shaped Resonators***
Pongphan Leelatien (Thammasat University, Thailand)

Pos3.81 ***Measurement of Propeller Modulation for ILS Flight Inspection by Drone***
Atsushi Kezuka and Shinji Saitoh (Electronic Navigation Research Institute, MPAT, Japan)

Pos3.82 ***Enhancing Electrode Efficiency of 350 kHz Earth-Grounded Antenna for Through-the-Earth Communication***
Peerasan Khamsalee, Atawit Jantaupalee, Chokpiwat Pruekchatsiri and Auychai Yatongchai (Suranaree University of Technology, Thailand)

Pos3.83 ***A Low-Cost Solution for Efficient Wireless Communication in Cultivated Areas***
Patryk Kalkowski (Gdansk University of Technology, Poland); Łukasz Szczygielski (Gdańsk University of Technology, Poland); Krzysztof Nyka and Lukasz Kulas (Gdansk University of Technology, Poland)

Pos3.84 ***Printed Antenna Arrays with Heat-Spreader for Wi-Fi 6 MIMO Application***
De-Lun Huang (PEGATRON Corporation, Taiwan)

Pos3.85 ***Design of Differential-Antenna (DA)-Based Sensors for Characterization of Dielectric Materials***
Kittima Lertsakwimarn, Danai Torrungrueng, Kitiphon Sukpreecha and Kittisak Phaebua (King Mongkut's University of Technology North Bangkok, Thailand); Hsi-Tseng Chou (National Taiwan University, Taiwan)

Thursday, October 30 15:40 - 17:20

4A4: [OS34] Yagi-Uda Antenna 100th Anniversary of Birth Special Session

Room A

15:40 ***Invention of Yagi-Uda Antenna and Its Application to Long-Distance UHF Communications***
Kunio Sawaya (Tohoku University, Japan)
(Invited Paper)

16:20 ***Design and Development of Medium-Gain Cross Multi-Beam Antenna Suitable for Future Mobile Communication Systems***
Koichi Tsune (Chubu University, Japan)

16:40 ***A Novel Rectenna Array Inspired by the Yagi-Uda Loop Antenna for Extended Wireless Power Transmission Distance***
Tamami Maruyama (Hiroshima Institute of Technology, Japan); Noa Ebita (Japan); Masashi Nakatsugawa (National Institute of Technology, Hakodate College, Japan); Masaya Tamura (Toyohashi University of Technology, Japan); Noriharu Suematsu (Tohoku University, Japan)

17:00 ***Cubic Yagi-Uda Array Antenna for 500 MHz Band Rectenna***
Keisuke Konno and Qiang Chen (Tohoku University, Japan)

4B4: Wireless Power Transfer Technologies

Room B
Chairs: Shinji Abe (Power Wave Co. Ltd, Japan), Naoki Sakai (Kanazawa Institute of Technology, Japan)

15:40 ***Ultra-Low Input Power Drivable IoT Wireless Sensor Using Energy Harvesting from Wi-Fi***
Masato Wadahama and Kazuhiro Fujimori (Okayama University, Japan)

16:00 ***APAA Pattern Reconfiguration Field Test Using an Aircraft for SPS Demonstration***
Yoshiyuki Fujino, Ryunosuke Hirose and Hidetoshi Kataoka (Toyo University, Japan); Tomohiko Mitani (Kyoto University, Japan); Koji Tanaka (Japan Aerospace Exploration Agency, Japan)

16:20 ***A Beam-Forming Array Antenna Based Wireless Powering Framework***
Yu-Feng Chen and Wen-Jiao Liao (National Taiwan University of Science and Technology, Taiwan)

16:40 ***A Circular Patch High-Density Array Antenna for High Output-Power Rectenna Arrays***
Koki Maeda (University of Saga, Japan); Eisuke Nishiyama and Ichihiko Toyoda (Saga University, Japan)

17:00 ***Application of BCITL-Based Wireless-Power-Transmission (WPT) Model for Material Level Sensors Using UHF-RFID Systems***
Supakit Kawdungta (Rajamangala University of Technology Lanna Chiang Mai, Thailand); Danai Torrungrueng (King Mongkut's University of Technology North Bangkok, Thailand); Varatchariya Thatinchan (Rajamangala University of Technology Lanna, Thailand); Kittisak Phaebua (King Mongkut's University of Technology North Bangkok, Thailand); Hsi-Tseng Chou (National Taiwan University, Taiwan)

4C4: Developments in Periodic Structures and Metasurfaces

Room C
Chair: Nobuyasu Takemura (Chukyo University, Japan)

15:40 ***Numerical Accuracy Evaluation for Scattering Waves by Multiple Plane Gratings***
Hideaki Wakabayashi (Okayama Prefectural University, Japan); Masamitsu Asai (Kinki University, Japan); Jiro Yamakita (Okayama Prefectural University, Japan)

16:00 ***Deep Learning for Radome FSS Multifunctionality Prediction via Bayesian Optimized U-Net***
Dal-Jae Yun, Haewon Jung, Jin-Hyeok Kim, In-Ho Lee and Young-Pyo Hong (Korea Research Institute of Standards and Science, Korea (South)); Min-Sung Kim and Jong-Cheon Lee (Agency for Defense Development, Korea (South)); In-June Hwang (Korea Research Institute of Standards and Science (KRISS), Korea (South))

16:20 ***A Wide Passband Frequency Selective Absorber Based on Cascading Different Parallel Resonators***
Dengshuang Yi, Qirui Yu, JiaHui Fu and Jiakai Zhang (Harbin Institute of Technology, China); Yizhi Zhang (Harbin Institute of Technolog, China); Wentao Liang and Yiding Liu (Harbin Institute of Technology, China)

16:40 ***A High Isolation AFSS Design Method Based on Non-Resonant Band***
Zhexun Zhang, Jiangcheng Ge, Tao Hong and Wen Jiang (Xidian University, China)

4D4: ML and AI for AP Applications

Room D
Chairs: Kazuhiro Fujita (Saitama Institute of Technology, Japan), Koichi Ichige (Yokohama National University, Japan)

15:40 ***Large Language Model-Inspired Transformer Framework for Antenna Design***
Chang Ge and Qiang Chen (Tohoku University, Japan)

16:00 ***Neural Network-Based Optimization of U-Slot Microstrip Antenna for Enhanced Performance***
Jitu Prakash Dhar, Eisuke Nishiyama and Ichihiko Toyoda (Saga University, Japan)

16:20 ***Water-Level Estimation Using Wi-Fi Channel State Information and Neural Networks***
Mineki Nakayasu and Hitoshi Shimasaki (Kyoto Institute of Technology, Japan)

16:40 ***Enhancing Urban Wireless Path Loss Prediction with Physics-Based Deep Learning and OpenStreetMap Features***
Inocent Mramba Calist and Minseok Kim (Niigata University, Japan)

17:00 ***A CNN-Aided SDR-Based SFCW Ground Penetrating Radar System for Subsurface Utility Detection***
Jesrey Martin S Macasero and Rochelle M Sabarillo (Mindanao State University - Iligan Institute of Technology, Philippines); Olga Joy Gerasta (Mindanao State University-Iligan Institute of Technology, Philippines); Chi-Fang Huang (Tatung University, Taiwan)

4E4: [OS31] Evolution of Radio Technology Shaping 6G in Japan

Room E
Chair: Issei Kanno (KDDI Research, Inc., Japan)

15:40 ***Digest of Beyond 5G White Paper on Repeater, Metasurface and RIS/IRS***
Gia Khanh Tran (Institute of Science Tokyo, Japan); Kei Sakaguchi (Tokyo Institute of Technology & Fraunhofer HHI, Japan)

16:00 ***Propagation Characteristics in Suburban Environment at 8GHz FR3 Spectrum for 6G***
Takahiro Hayashi and Satoshi Ito (KDDI Research, Inc., Japan)

16:20 ***Evaluation and Experimental Comparison of WLAN-Based Device-Free Localization Using Distributed Antennas***
Osamu Muta, Fuma Kunihiro and Shunsuke Shimizu (Kyushu University, Japan); Tomoki Murakami, Shinya Otsuki and Hanae Otani (NTT Corporation, Japan)

16:40 ***A Comparison of Eigenvalues and Channel Capacity Between OAM Mode Multiplexing and LoS MIMO with Linear or Rectangular Array in Free Space***
Makoto Taromaru (Fukuoka University, Japan)

17:00 ***Terminal-Collaborated MIMO Systems: Initial Results of 25.9GHz Collaboration***
Hidekazu Murata (Yamaguchi University, Japan)

4F4: [OS21] Analysis and Measurement for Reconfigurable Intelligent Surfaces (RIS)

Room F
Chair: Mayumi Yoshino (Nihon Dengyo Kosaku Co. Ltd., Japan)

15:40 ***Study on Design of Two-Layered Transparent Type Meta-Surface***
Masato Utsunomiya and Mitoshi Fujimoto (University of Fukui, Japan)

16:00 ***A Study of RIS Propagation Simulation Methods with near-Field Effect***
Masayuki Shirakawa, Daisuke Hosokawa, Kohei Suzuki, Yosuke Saiki, Gilbert S Ching and Kenshi Horihata (Kozo Keikaku Engineering Inc., Japan)

16:20 ***Design Optimization of Metasurface Reflectors with Discrete-State Elements via Annealing Techniques***
Yuto Kato (National Institute of Advanced Industrial Science and Technology, Japan); Michitaka Ameya (AIST, Japan); Atsushi Sanada (The University of Osaka, Japan)

16:40 ***Indoor Experiment of Liquid Crystal Reconfigurable Intelligent Surface for mmWave Communications***
Hiroki Aoki, Takuya Ohto and Takahiro Hayashi (KDDI Research, Inc., Japan); Mitsutaka Okita, Kazuki Matsunaga, Masayuki Ikari, Daijiro Takano and Shinichiro Oka (Japan Display Inc., Japan)

17:00 ***Design of Transmission-Type Metasurfaces and Evaluation of the Received Power Enhancement for a 5G Base Station***
Masamichi Yonehara, Nobuki Hiramatsu, Hiromichi Yoshikawa and Takafumi Uehama (Kyocera Corporation, Japan); Hisamatsu Nakano (Hosei

University, Japan)

Friday, October 31

Friday, October 31 9:00 - 10:40

5A1: Smart and Reconfigurable Antennas

Room A

Chairs: Nozomi Haga (Toyohashi University of Technology, Japan), Maodudul Hasan (Toyohashi University of Technology, Japan)

9:00 ***Multifunctional Reconfigurable Antenna Arrays with Distributed Diode Control***

Van Thang Nguyen and Jae-Young Chung (Seoul National University of Science and Technology, Korea (South))
(Invited Paper)

9:40 ***A Polarization-Mixing Analog Beamforming (PMBF) System for 2D Beamwidth Control***

Fanchao Zeng (University of Technology Sydney, Australia); Can Ding (University of Technology Sydney (UTS), Australia); Y. Jay Guo (University of Technology Sydney, Australia)

10:00 ***Individually Steerable Analogue Multibeam Antenna with Wide-Angle Coverage***

Ming Li, Shu-Lin Chen and Y. Jay Guo (University of Technology Sydney, Australia)

10:20 ***Realization of Constant Amplitude Standing Wave Excitation Through Multi-Level Coupling Control in a Reconfigurable Series-Fed Antenna***

Seungwoo Bang and Jaehoon Kim (Seoul National University, Korea (South)); Jun Gi Jung (Samsung Electronics, 34 Seongchon-gil, Seoul Korea, Korea (South)); Jun Hwa Oh (Samsung Research & Samsung Electronics Co., Korea (South)); Byeongjin Kim and Jungsuek Oh (Seoul National University, Korea (South))

5B1: [OS06] Propagation and Modeling in ITU-R SG3

Room B

Chairs: Myung-Don Kim (ETRI, Korea (South)), Juyul Lee (ETRI, Korea (South))

9:00 ***Antenna Height Impact Analysis on Measured Path Loss and Delay Spread at Sub-6 GHz and mmWave Bands in an Urban Environment***

Azril Haniz and Hirokazu Sawada (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT), Japan & Kyoto University, Japan)

9:20 ***Exploring Radio Propagation Characteristics of Data Center Environments at 415 GHz***

Jinhyung Oh (Electronics and Telecommunications Research Institute, Korea (South)); Jong Ho Kim (ETRI, Korea (South))

9:40 ***Sub-THz Propagation Channel Characteristics in an Outdoor Open Square Environment***

Masato Yomoda (University of Niigata, Japan); Minghe Mao and Minseok Kim (Niigata University, Japan)

10:00 ***255 GHz Indoor Office Propagation Measurements for Path Loss and Delay Spread Analysis***

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

10:20 ***Sub-Terahertz Path Loss Measurements in Urban and Suburban Environments***

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

5C1: [OS24] Electromagnetic field theory

Room C

Chairs: Hideki Kawaguchi (Muroran Institute of Technology, Japan), Chenxu Wang (National Institute for Fusion Science, Japan)

9:00 ***Scattering Analysis of Nano-Scale Chiral Structures in Ultraviolet Optical Vortex Using FDTD Method***

Chenxu Wang (National Institute for Fusion Science, Japan); Hideki Kawaguchi (Muroran Institute of Technology, Japan); Hiroaki Nakamura (National Institute for Fusion Science & Nagoya University, Japan)

9:20 ***An Investigation on the Frequency-Dependent FDTD Model of Dirac Semimetals***

Takumi Tamaki, Takuto Makimoto and Jun Shibayama (Hosei University, Japan); Jerdvisanop Chakarothai (National Institute of Information and Communications Technology, Japan); Yukihisa Suzuki (Tokyo Metropolitan University, Japan)

9:40 ***Temperature Sensitivity Analysis of Waveguide-Type and Kretschmann-Type SPR Sensors in the Terahertz Band Using the FDTD Method***

Hinata Yagi (Tokyo Metolopolitan University, Japan); Yukihisa Suzuki (Tokyo Metropolitan University, Japan); Jun Shibayama (Hosei University, Japan); Jerdvisanop Chakarothai (National Institute of Information and Communications Technology, Japan)

10:00 ***Reconstruction of Phase Information for THz Electromagnetic Beams Using Phase Retrieval Algorithms***

Shunichi Fujimori (Tokyo Metropolitan University, Japan); Masafumi Fukunari (University of Fukui, Japan); Alfred Kik, Toshio Kamijo and Yukihisa Suzuki (Tokyo Metropolitan University, Japan); Yoshinori Tatematsu (University of Fukui, Japan)

10:20 ***Analysis of Leakage Magnetic Fields Including Harmonic Components in Wireless Power Transfer with a Sandwich Structure***

Hiroaki Arai (Tokyo Metropolitan Industrial Technology Research Institute, Japan & Tama Techno Plaza, Japan); Misato Akiyama, Hiroyasu Sano and Teru Obata (Tokyo Metropolitan Industrial Technology Research Institute, Japan); Yukihisa Suzuki and Masao Taki (Tokyo Metropolitan University, Japan)

5D1: [OS18] Indoor and Outdoor Propagation

Room D

Chairs: Naoki Kita (Tokyo Denki University, Japan), Koshiro Kitao (NTT DOCOMO, INC, Japan)

9:00 ***Experimental Verification of Doppler Spectrum Considering Moving Scatterers in V2V Communications***

Tatsuya Kutsukawa (Univerasity, Japan & Chiba Institute of Technology, Japan); Hiroaki Nakabayashi (Chiba Institute of Technology, Japan)

9:20 ***Channel Measurements and Characteristics for Sub-Terahertz Band in Urban Environment***

Minoru Inomata and Ryotaro Taniguchi (NTT, Japan); Wataru Yamada (NTT Corporation, Japan); Nobuaki Kuno, Koshiro Kitao, Takahiro Tomie and Satoshi Suyama (NTT DOCOMO, INC, Japan); Tetsuaki Ikoma (Keysight Technologies, Japan); Michael Millhaem and Roger Nichols (Keysight Technologies, USA)

9:40 ***Outdoor Spatial Scattering Measurements from Complex Structures at 92-110 GHz***

Demos Serghiou, Tim Brown, Ali Ali and Pei Xiao (University of Surrey, United Kingdom (Great Britain)); Mohsen Khalily (University of Surrey & 5G Innovation Centre, Institute for Communication Systems (ICS), United Kingdom (Great Britain)); Rahim Tafazolli (University of Surrey, United Kingdom (Great Britain))

10:00 ***Measurement and Analysis of Transmission Loss in the Millimeter-Wave Band for Window Glasses***

Masaya Takahashi and Shoma Tanaka (SoftBank Corp., Japan); Sho Kimura, Ho-Yu Lin, Akihiro Sato and Hideki Omote (Softbank Corp., Japan)

10:20 ***Wideband Delay and Angular Profile Evaluation at 158 GHz in Indoor Office Environment***

Nobuaki Kuno, Koshiro Kitao, Takahiro Tomie and Satoshi Suyama (NTT DOCOMO, INC, Japan); Minoru Inomata (NTT, Japan); Wataru Yamada (NTT Corporation, Japan); Ryotaro Taniguchi (NTT, Japan); Michael Millhaem (Keysight Technologies, USA); Tetsuaki Ikoma (Keysight Technologies, Japan); Roger Nichols (Keysight Technologies, USA)

5E1: Small antenna and antenna measurement

Room E

Chairs: Takafumi Fujimoto (Nagasaki University, Japan), Toru Fukasawa (Kanazawa Institute of Technology, Japan)

9:00 ***Conformal Design for 3D-Printable Leaky-Wave Antennas***

Patrick J Bartley (The University of Queensland, Australia); Christophe Fumeaux (University of Queensland, Australia); Nic Lawrence (University of Adelaide & Defence Science Technology Group, Australia); Nghia Nguyen (Nextwaves Industries, Vietnam)

9:20 ***A Circularly Polarized Antenna with Optimized Symmetrical Axial Ratio Beamwidth***

Phanuphong Boontamchauy (CATC Thailand, Thailand); Pongphol Aeimopas and Manurak Rattanasuttikan (Civil Aviation Training Center of Thailand, Thailand); Sathian Yutthanaboon and Usa Torteanchai (CATC, Thailand)

9:40 ***A W-Band Compact Wideband Vertically-Polarized Omnidirectional Antenna***

Dongqing Liu (Harbin Institute of Technology, China); Nannan Wang (Harbin Institude of Technology, China); Pengcheng Wang, Guowei Xu and Jingrui Xu (Harbin Institute of Technology, China)

10:00 ***Realization and Validation of an L-Band Local Plane-Wave Illumination Bench for Electromagnetic Susceptibility Studies***

Sami Barouki (CEA-Gramat, France & Xlim Research Institute, France); Patrick Hoffmann (CEA, France); Alain Reineix (University of Limoges, CNRS, unknown)

10:20 ***RF Assessment of the Mechanical Design of the Compact Antenna Test Range for HERTZ 2.0***

Cecilia Cappellin, Pasquale Giuseppe Nicolaci and Min Zhou (TICRA, Denmark); Giuseppe Valsecchi and Mauro Maggioni (MediaLario, Italy); Claudio Franchini (Microvawe Engineering Consultant, Italy); Luis Rolo (European Space Agency, ESTEC, The Netherlands); Antonio Riccardi (ESTEC, The Netherlands)

5F1: [OS28] Advanced Techniques for EMC/EMI

Room F

Chairs: Fauziahanim Che Seman (Universiti Tun Hussein Onn Malaysia, Malaysia), Rasyidah Hanan Mohd Baharin (National Institute of Information and Communications Technology, Japan)

9:00 ***ITO-PDMS Based Millimeter Wave Transparent Reflectarray Antenna for 5G Communications***

Muhammad Inam Abbasi and Altaf Ahmed (Universiti Teknikal Malaysia Melaka (UTeM), Malaysia); S. Kesarajah and Imran Mohd Ibrahim (Universiti Teknikal Malaysia Melaka, Malaysia)

9:20 ***Statistical Evaluation of Electromagnetic Interference Characteristics in the Aircraft Radio Altimeter Frequency Band Using Large-Scale FDTD Analysis***

Kohsuke Ushimaru, Takashi Hikage, Manabu Yamamoto and Manabu Omiya (Hokkaido University, Japan); Kazuyuki Morioka and Shunichi Futatsumori (Electronic Navigation Research Institute, Japan)

9:40 ***Experimental Evaluation of near-Field Gain of Circularly Polarized Cross-Dipole Antenna in Pure Water at 6 GHz and 9 GHz***

Aale Muhammad and Nozomu Ishii (Niigata University, Japan); Yuto Shimizu and Tomoaki Nagaoka (National Institute of Information and Communications Technology, Japan)

10:00 ***Design and Complex Permittivity Control of Dry Phantoms with Carbon Fibers and Nanotubes***

Takehito Sato (E&C Engineering K.K, Japan); Tamaki Noto and Koji Nakagawa (E&C Engineering, Japan); Toshiyasu Tanaka (Microwave Factory Co., Ltd., Japan); Takashi Hikage (Hokkaido University, Japan)

10:20 ***EMC Analysis of 275kV Transmission Lines: Impacts on Nearby Equipment and Pacemakers***

Zarismail Abd Rahman (Universiti Tun Hussein Onn, Malaysia); Syarfa Sapuan (University Tun Hussein Onn Malaysia (UTHM), Malaysia); Fauziahanim Che Seman (Universiti Tun Hussein Onn Malaysia, Malaysia); Mohd Fahrul Hassan (EMTEX, Malaysia)

Friday, October 31 11:00 - 12:40

5A2: AP Related Topics for B5G and 6G

Room A

Chair: Tetsuro Imai (Tokyo Denki University, Japan)

11:00 ***Enhancing Societal Resilience Through ICT Innovations and Deployment***
Masugi Inoue (National Institute of Information and Communications Technology, Japan)
(Invited Paper)

11:40 ***Construction of a Multi-Antenna Evaluation System Using 3GPP-Compliant Signals***
Shumpei Tabuchi, Kazuma Tomimoto, Toshiki Hozen and Tomonori Ikeda (Softbank Corp., Japan); Ryo Yamaguchi (SOFTBANK Corp., Japan)

12:00 ***Dynamic Mode Group Selection Method for Beam Axis Misalignment in OAM Multiplexing***
Ryosuke Hoshi (Waseda University, Japan); Yasunori Yagi (NTT Corporation, Japan); Doohwan Lee (NTT, Japan); Fumiaki Maehara (Waseda University, Japan)

12:20 ***Probing Electromagnetic Exposure Around LEO VSAT Terminals***
Amina Fellan (Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Germany); Hans D. Schotten (University of Kaiserslautern, Germany)

5B2: Metasurface technology

Room B

Chairs: Tamami Maruyama (Hiroshima Institute of Technology, Japan), Makoto Sano (Yokohama National University, Japan)

11:00 ***A Reconfigurable Circular Polarized Reflective Metasurface with Strip and Parasitic Patches***
Jeong-Hae Lee (Hongik University, Korea (South))

11:20 ***A Quasi 4-Bit Reconfigurable Metasurface Antenna for Continuous Beam Steering***
Yong-Hyun Nam (Korea (South)); Jeong-Hae Lee (Hongik University, Korea (South))

11:40 ***Multiwavelength Multiplexing Airy Vortex Wave Generation via Impedance Metasurface***
Jun Gu (University of Science and Technology of China, China & USTC, China); Xiang Zhang, Haoyang Chen and Chang Chen (University of Science and Technology of China, China); Weidong Chen (University of Science & Technology of China, China)

12:00 ***A Small Single-Layer Phase Gradient Metasurface for Gain Enhancement***
Jialiang Han and Hui Li (Dalian University of Technology, China)

12:20 ***Via-Free SIW Resonator Antennas Based on Coplanar Meta-Surfaces for Generating OAM Vortex Waves***
Xinhui Cui, Dongxing Gao, Fanning Kong, Yueying Bai, Liang Likai and Yanling Wang (Shandong University, China)

5C2: [OS02] Frontiers of Computational Electromagnetics

Room C

Chair: Keisuke Konno (Tohoku University, Japan)

11:00 ***Frequency Characteristics of Circuit Model of Undersea Loop Coupler Derived by Impedance Double Expansion Method***
Nozomi Haga (Toyohashi University of Technology, Japan); Jerdvisanop Chakarothai (National Institute of Information and Communications Technology, Japan); Keisuke Konno (Tohoku University, Japan)

11:20 ***Mesh-Free Modeling of Two-Dimensional Infinite Periodic Structure Using Green's Function for Method of Moments***
Keisuke Konno (Tohoku University, Japan); Nozomi Haga (Toyohashi University of Technology, Japan); Jerdvisanop Chakarothai (National Institute of Information and Communications Technology, Japan); Qiang Chen (Tohoku University, Japan)

11:40 ***Generating Sparse Basis Functions for the MoM for the Helmholtz Equation in 3D***
Kazuki Niino (Mitsubishi Electric Corporation, Japan); Asuka Ikegami (Kyoto University, Japan)

12:00 ***Optimized Simulation Technique for Radome Antenna Models***
Weijian Ran and Ming Jiang (University of Electronic Science and Technology of China, China)

12:20 ***An Efficient Technique for Solving Large Scale Honeycomb Arrays***
Weijian Ran, Ming Jiang and Lin Lei (University of Electronic Science and Technology of China, China)

5D2: [OS30] Enhancing Radio Propagation Technologies Driven by Machine Learning

Room D

Chairs: Daisuke Hosokawa (Kozo Keikaku Engineering Inc., Japan), Tatsuya Nagao (KDDI Research, Inc., Japan)

11:00 ***CNN-Based Path Loss Prediction Using Overhead and Side Images Considering Antenna Patterns***
Ryotaro Taniguchi (NTT Corporation, Japan); Minoru Inomata (NTT, Japan); Wataru Yamada and Tomoaki Ogawa (NTT Corporation, Japan)

11:20 ***A Method for Predicting Path Loss Using PointNet and Point Cloud Data of Buildings***
Daisuke Hosokawa, Satoshi Iwasaki, Kenshi Horihata and Yukiko Kishiki (Kozo Keikaku Engineering Inc., Japan)

11:40 ***Virtual 3-D City Augmentation and Its Application to Learning-Based Radio Propagation Prediction***
Rento Hagiwara, Kazuki Yuasa and Koichi Ichige (Yokohama National University, Japan); Tatsuya Nagao and Takahiro Hayashi (KDDI Research, Inc., Japan)

12:00 ***Deep Learning-Based Detection Using Different Polarization Passive Millimeter-Wave Images***
Li Zhang (Harbin Institute of Technology, China & School of Electronics and Information Engineering, China); Yayun Cheng, Kunmiao Huang and Jinghui Qiu (Harbin Institute of Technology, China)

12:20 ***Sub-THz Beam Selection Based on Millimeter-Wave Beam Information***
Toshihiro Sumitani, Hirofumi Sasaki, Ken Hiraga and Riichi Kudo (NTT Corporation, Japan)

5E2: Reflector and Reflectarray Antennas

Room E
Chair: Naobumi Michishita (National Defense Academy, Japan)

11:00 ***A Circularly-Polarized Reflectarray at 90-GHz Band***
Ching-Ting Huang, Ming-Che Li and Tzyh-Ghuang Ma (National Taiwan University of Science and Technology, Taiwan)

11:20 ***Axi-Symmetric Parabolic Reflector for Directive Beam for ISL***
Alex Evrard (Université de Rennes, France); George Goussetis (Heriot-Watt University, United Kingdom (Great Britain)); Andrea Guarriello (Thales Alenia Space, France); Hervé Legay (Thalès Alenia Space, France); Ronan Sauleau (Universite de Rennes, France)

11:40 ***Effect of Shaped Sub-Reflector Performance for Spherical Reflector Antenna***
Yoshihide Yamada and Ayuni Afiqah Arjunaidi (Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia); Norazah Abdullah and Kamilia Kamardin (Universiti Teknologi Malaysia, Malaysia); Hiroshi Hashiguchi and Naobumi Michishita (National Defense Academy, Japan)

12:00 ***Broadband W-Band Single-Layered Circularly Polarized Reflectarray***
KaiFu Chen, Lin-Ting Tseng and Tzyh-Ghuang Ma (National Taiwan University of Science and Technology, Taiwan)

12:20 ***One-Body Two-Dimensional Hollow Waveguide Switching Matrix with a 4×4 Triangular Lattice of Beams***
Shengjia Wu, Jiro Hirokawa and Takashi Tomura (Institute of Science Tokyo, Japan); Nelson Fonseca (Anywaves, France)

5F2: [OS28] Advanced Techniques for EMC/EMI

Room F
Chairs: Takashi Hikage (Hokkaido University, Japan), Tomoaki Nagaoka (National Institute of Information and Communications Technology, Japan)

11:00 ***Assessment of Whole-Body Exposure to Electromagnetic Fields from Beamforming Arrays Using Low-Rank Approximation***
Yujiro Kushiyama and Tomoaki Nagaoka (National Institute of Information and Communications Technology, Japan)

11:20 ***Evaluating SAR Distribution of an Ingestible NMHA in Stomach Tissue Across MICS and ISM Bands***
Kamilia Kamardin, Norsiha Zainudin and Norhudah Seman (Universiti Teknologi Malaysia, Malaysia); Yoshihide Yamada (Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia); Rasyidah Hanan Mohd Baharin (National Institute of Information and Communications Technology, Japan); Tarik Abd Latef (University of Malaya, Malaysia)

11:40 ***Evaluation of Multi-Frequency Electromagnetic Exposure Using Numerical Smartphone Models Considering Various Usage Conditions***
Homei Fujita, Tsugumi Nishidate, Kazuyuki Saito and Masaharu Takahashi (Chiba University, Japan); Tomoaki Nagaoka (National Institute of Information and Communications Technology, Japan)

12:00 ***Whole-Body SAR Evaluation Under Far-Field Exposure with Daily Posture Variability: Toward an Epidemiologically Relevant Assessment***
Koki Kusakabe, Takashi Hikage and Toshihiko Nishimura (Hokkaido University, Japan); Tatsuya Kashiwa (Kitami Institute of Technology, Japan); Naomi Tamura, Yu Ait Bamai, Atsuko Ikeda and Reiko Kishi (Hokkaido University, Japan)

12:20 ***Numerical Estimation of Temperature Increase Due to Ohmic Loss on Implanted Metal Plates Exposed to Microwaves***
Shuhei Waki and Takashi Hikage (Hokkaido University, Japan); Tomoaki Nagaoka (National Institute of Information and Communications Technology, Japan)

Friday, October 31 14:00 - 15:40

5A3: RFID and Its Applications

Room A
Chair: Takuya Okura (National Institute of Information and Communications Technology, Japan)

14:00 ***A Novel RFID Gate Station with Cylindrical Reflector for High-Accuracy Textile Tracking in Smart Hospitals***
Titipong Lertwiriyaprapa (King Mongkut's University of Technology North Bangkok, Thailand); Kiadtisak Salayong and Kittisak Phaebua (King Mongkut's University of Technology North Bangkok, Thailand.); Montree Saowadee (King Mongkut's University of Technology North Bangkok, Thailand)
(Invited Paper)

14:40 ***Insole Antenna System for Detection of Elderly Wanderers***
Hiroyasu Sato (Tohouku University, Japan); Kodai Sato (Tohoku University, Japan); Kazuhiro Suzuki (Life Laboratory Inc., Japan); Qiang Chen (Tohoku University, Japan)

15:00 ***Application of Zeroth-Order Resonant Antennas in RFID Systems Operating in the UHF Band***
Yoshihito Nakado (Kyoto Institute of Technology, Japan); Kohei Enomoto, Yuto Mitsui and Yosuke Hiraiwa (DENSO WAVE Incorporated, Japan); Tetsuya Ueda (Kyoto Institute of Technology, Japan)

15:20 ***Input Resistance Step-Up of Normal-Mode Helical Antennas (NMHA) Using Dual and Triple-Folded Structures***

Noorlindawaty Md Jizat (Multimedia University, Malaysia); Azwan Mahmud (Multimedia University & Telekom Malaysia, Malaysia); Norsiha Zainudin (Universiti Teknologi Malaysia, Malaysia); Muhsin Muhsin (Telkom University, Indonesia); Yoshihide Yamada (Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia)

5B3: Planar / Printed antenna and Arrays

Room B

Chairs: Shengjian Jammy Chen (Flinders University, Australia & The University of Adelaide, Australia), Manabu Yamamoto (Hokkaido University, Japan)

14:00 ***Single-Feed Two-Layer PCB Design for Sequentially Rotated Dipoles***

Héctor Ortega-González (Eindhoven University of Technology, The Netherlands); Jean-Philippe Fraysse (Thales Alenia Space, France); Ulf Johannsen (Eindhoven University of Technology, The Netherlands)

14:20 ***A Simple Technique Enhancing Spectral Performance for Planar Dipole Antennas***

Tianchang Ma and Quoc Hung Dang (The University of Adelaide, Australia); Christophe Fumeaux (University of Queensland, Australia); Nghia Nguyen (Nextwaves Industries, Vietnam); Shengjian Jammy Chen (Flinders University, Australia & The University of Adelaide, Australia)

14:40 ***Fundamental Study of Quasi-Millimeter Wave Wideband Beam Tilt Array Antenna Using Leaf-Shaped Bowtie Slot Antenna***

Haruta Yamada (Hokkaido University, Japan)

15:00 ***Patch Antenna Bandwidth Enhancement with Asymmetric Mushroom Structures***

Junyi Chen (The University of Adelaide, Australia); Shengjian Jammy Chen (Flinders University, Australia & The University of Adelaide, Australia); Christophe Fumeaux (University of Queensland, Australia); Nghia Nguyen (Nextwaves Industries, Vietnam)

15:20 ***Radio Area Evaluation of Base Station Antennas in a Stadium***

Masayuki Nakano (KDDI Research, Japan); Yoshiaki Amano (KDDI Corporation, Japan)

5C3: Future Technologies for EM Waves and Circuits

Room C

Chairs: Rodica Ramer (University of New South Wales, Australia), Michio Takikawa (Nihon University, Japan)

14:00 ***Broadband 1-Port Material Characterization Setup Using a Focusing Lens Antenna in the Millimeter Wave Band***

Julio Sánchez Paredes (UMA, Spain & Telma, Spain); Javier Arjona Ramos (Universidad de Málaga, Spain); Enrique Márquez-Segura (Universidad de Malaga, Spain); Mario Pérez-Escribano (Universidad de Málaga, Spain)

14:20 ***Sub-Terahertz Ultra-Wideband Achromatic Cascaded Waveguide Polarizer***

Keyi Ma, John S. Kot, Xin Wen and Rodica Ramer (University of New South Wales, Australia)

14:40 ***Linearized Low Noise Amplifier and Mixer of Radar Sensing with Received Antenna***

Wen Cheng Lai (National Taiwan University of Science and Technology, Taiwan)

15:00 ***Low Power Phase-Locked Loop with Linearized VCO and Divider at 24 GHz***

Wen Cheng Lai (National Taiwan University of Science and Technology, Taiwan)

5D3: [OS17] Simulation Analysis of Propagation

Room D

Chair: Kenshi Horihata (Kozo Keikaku Engineering Inc., Japan)

14:00 ***Accuracy Evaluation of Indoor Multipath Estimation Using Color Images Method***

Takahiro Tomie, Satoshi Suyama, Koshiro Kitao and Nobuaki Kuno (NTT DOCOMO, INC, Japan)

14:20 ***Propagation Path Reutilization for Efficient Ray Tracing Method in Parameter Studies of Wireless Power Transmission***

Kento Sugiyama, Yasuyuki Ninomiya, Yoto Emori, Kenshi Horihata, Akio Hasegawa and Hiroyuki Yokoyama (Advanced Telecommunications Research Institute International, Japan)

14:40 ***Intelligent Deployment for Post-Earthquake Response: Ray Tracing-Assisted Connectivity for Indoor Rubble-Trapped Victims***

Lawrence Materum, Rafael Alfonso Alegrio, Maria Gianina Bernardo, Marielle Faye Enriquez and Daniel Christopher Monis (De La Salle University, Philippines)

15:00 ***Accelerating Ray Tracing Using Non-Uniform and Restricted Ray Launching Directions in Urban Areas***

Maiko Iwatani (Mitsubishi Electric Corporation, Japan)

15:20 ***Measurement and Deep Learning-Based Power Prediction of the Scatterer for ISAC Channels***

Hongyu Duan, Ke Guan, Danping He, Lei Yang and Tianwei Wu (Beijing Jiaotong University, China); Chuangxin Jiang (ZTE Corporation, China)

5E3: Millimeter wave and Terahertz antenna II

Room E

Chairs: Kengo Nishimoto (Mitsubishi Electric Corporation, Japan), Yoshiki Sugimoto (Nagoya Institute of Technology, Japan)

14:00 ***Best Lens Antenna Shape for Multibeam with Negative Refractive Index***

Izni Husna Idris (Universiti Pertahanan Nasional Malaysia, Malaysia); Yoshihide Yamada (Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia); Kamilia Kamardin and Mohammed Farouk Al Ghifarry (Universiti Teknologi Malaysia, Malaysia)

14:20 ***Design of a Rectangular-Waveguide Bent TE20 Mode Converter for 150 GHz-Band Horizontally-Polarized Omni-Directional Antenna***

Renshi Funabiki (Institute of science Tokyo, Japan); Jiro Hirokawa and Takashi Tomura (Institute of Science Tokyo, Japan)

14:40 ***High-Temperature Superconducting (HTS) Josephson Mixers Integrated with Sub-Terahertz Leaky-Wave Antennas***
He Zhu (CSIRO, Australia)

15:00 ***Design of a Hollow-Waveguide Slot Array Antenna for a Channel Sounder Excited by a Standing Wave 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)

15:20 ***Dielectric Fan-Shaped Antenna for Millimeter Wave Band***
Keisuke Sato (Denki Kogyo Co. Ltd., Japan); Hisamatsu Nakano (Hosei University, Japan)

5F3: [OS07] HAPS mobile communication systems

Room F

Chairs: Gia Khanh Tran (Institute of Science Tokyo, Japan), Hiroyuki Tsuji (National Institute of Information and Communications Technology, Japan)

14:00 ***Evaluating Inter-HAPS System Interference with TDD Frequency and Regenerative Payload***
Yuki Hokazono, Hirofumi Nakajo, Megumi Oozono, Atsunori Shimamura and Kenji Fukasawa (NTT DOCOMO, Japan); Yuto Muroki and Yoshihisa Kishiyama (Space Compass Corporation, Japan)

14:20 ***Improvement of HAPS System Availability Using Open-Loop UPC Based on Local Meteorological Observation Data***
Yuto Muroki, Sunao Toya, Takuya Miyashita and Yoshihisa Kishiyama (Space Compass Corporation, Japan); Yuki Hokazono and Kenji Fukasawa (NTT DOCOMO, Japan); Hiromu Kitanozono (SKY Perfect JSAT Corporation, Japan)

14:40 ***HAPS Cell Design Considering Array Antenna Configuration for Improving Spectral Efficiency***
Koichi Maki, Koji Tashiro, Tsutomu Ishikawa and Kenji Hoshino (SoftBank Corp., Japan)

15:00 ***Experimental Evaluation of Beam Tracking for HAPS Feeder Link***
Kazuki Matsuura (SoftBank Corp., Japan); Yoshichika Ohta (Softbank Corp., Japan)

15:20 ***Model-Based DRL for Dynamic Antenna Beamforming in HAPS Communication System***
Siyuan Yang, Mondher Bouazizi and Tomoaki Ohtsuki (Keio University, Japan)