2024 IEEE 7th International **Conference on Electronic Information and Communication Technology (ICEICT 2024)**

Xi'an, China 31 July - 2 August 2024

Pages 1-759



IEEE Catalog Number: CFP24F64-POD ISBN:

979-8-3503-8444-4

Copyright © 2024 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP24F64-POD

 ISBN (Print-On-Demand):
 979-8-3503-8444-4

 ISBN (Online):
 979-8-3503-8443-7

ISSN: 2836-7774

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



Table of Contents

Topic 1. Communications and Network		
PID	Paper Information	Page
8379	Research on multidimensional reconstruction security billing strategy in cloud native scenarios Kun Che, Shuo Sheng Chengfang Financial Information Technology Services Co., Ltd	1
8403	Low Coupling Sparse Array Based on Uniform Linear Array Fitting Method Yichang Yao, Yingsong Li, Liping Li, Nikola Zlatanov Harbin Engineering University	7
8404	Near-field Source DOA Estimation Algorithm Based on De-impact Function under Impulse Noise Xingchao Xu, Baohe Pang, Yingsong Li, Liping Li, Dingcheng Zou, Nikola Zlatanov Harbin Engineering University	11
8416	Sparsity-aware Subband Adaptive Filtering in Impulsive Interferences Zhikai Gong, Yingsong Li, Baohe Pang, Xueyan Li, Wudang Xiao, Liping Li, Nakola Zlatanov Harbin Engineering University	17
8433	Soft Multipath Information-Based UWB Tracking in Cluttered Scenarios: Preliminaries and Validations Chenglong Li, Zukun Lu, Long Huang, Shaojie Ni, Guangfu Sun, Emmeric Tanghe, Wout Joseph National University of Defense Technology	20
8446	Joint beam placement and pattern design for beam-hopping HTS system Yu Zhang, Wuyang Zhou University of Science and Technology of China	26
8636	A Microwave Sensor for Detection of Water Adulteration and Spoilage in Milk Based on Split-Ring Resonator Shuying Ding, Yingsong Li, Zhixiang Huang, Eugene Sinkevich, Vladimir Mordachev Anhui University	32
8745	Securing Near-Field MIMO Communications via Dynamic Metasurface Antennas Jilin Hou, Lixia Yang, Xinyue Hu, Yu Zhang, Jialin Zhou, Zhengang Nie Anhui University	34
8785	Efficient Multi-UAV Path Planning for Wireless Data Harvesting: A Deep Reinforcement Learning Approach Nawaf Qasem Hamood Othman, Haithm M. Al-Gunid, Imran Younas XIDIAN UNIVERSITY	39
8823	Deep Neural Networks for Estimating DOA of Multiple Radio Waves Shen Qian, Cheng Meng Kanagawa University	45

8858	Adaptive Channel Assignment for Wireless Mesh Networks Based on Multi-Intelligent Body Reinforcement Learning Hang Su, Fang Ye, Chunxia Su, Xue Sun Key Laboratory of Advanced Marine Communication and Information Technology, College of Information and Communication Engineering, Harbin Engineering University	49
8859	A Q-Learning-Based Load Balancing Routing Protocol for Underwater Wireless Sensor Networks Jialiang Gao, Fang Ye, Kaiyue Zhang, Zhi Zhang Key Laboratory of Advanced Marine Communication and Information Technology, College of Information and Communication Engineering, Harbin Engineering University	55
	Topic2: Signal Processing (SP) and Information Technology	
PID	Paper Information	Page
8234	Design of Performance Testing Method for Track Circuit Products Based on PXI Universal Bus Technology Li Caiqi, Xie Zaisheng Beijing National Railway Research Design Institute of Signal Communication Group Co.,Ltd.	61
8238	Trial Study on Sea Clutter Identification and Target Detection Hongguang Ma, Jinku Guo, Buyu Zhang, Binzhou Yan, Jian Wu, Weifeng Chen Xi'an Daheng Tiancheng IT Co. Ltd	66
8362	Spatial Spectrum Estimation Direction Finding Algorithm of Uniform Linear Array Based on Virtual Array Transformation and Data Enhancement Haochuan Chen, Zhinan Chen, Xuemei Chu Beijing Research Institute of Telemetry	72
8370	Research on Interference Methods for Interferometer Direction-finding Based on Dual-point Source Co-processing <i>Qi Zhao, Zhonghao Lu, Shunping Xiao</i> National University of Defense Technology	78
8380	A Space-Time Modulated Metasurface Encoding Scheme for Orbital Angular Momentum Multiplexing Yingqi Yue, Hui Deng, Junbing Liu, Minjie Li, Rongqiang Yang Beihang University	82
8400	A ViT Merged Oriented-Detector with Neuron Attention for Ship Detection in SAR Images Yiyang Huang, Di Wang, Wentao Huang, Daoxiang An National University of Defense Technology	85
8411	Enhanced Symplectic Geometric Mode Decomposition via K-means Clustering for LFM Signal Denoising Jincheng Ni, Jin Zhao, Xianliang Wu, Ping Wu Anhui University	91
8423	Software Defined Radio-Based Electromagnetic Environment Interference Detection Chang Ge, Zuchao Li, He Gong, Maoyuan Sun, Kun Li, Mengguan Pan Anhui University	95

8434	A Joint Solution Method of Orthogonal Matching Pursuit and Improved Harris Hawk	
	Optimization for 5G Positioning	00
	Rui Xue, Hankuo Liu, Zedong Liang	99
	Harbin Engineering University	
	A Novel Signal Denoising Method Based on Adaptive Stochastic Resonance	
8442	Rui Xue, Yikun Tong	104
	Harbin Engineering University	
	Research on Signal Denoising Method Based on Symplectic Geometric Mode	
0.456	Decomposition and Savitzky-Golay Filtering	440
8456	Xuelong Xu, Jin Zhao, Bo Wu, Xianliang Wu, Jincheng Ni, Ping Wu	110
	Anhui University	
	A Novel Complex-Valued Network for Phase Preservation Sparse SAR Imaging: Initial	
0.455	Result	115
8475	Lingyu Li, Hui Bi, Jingjing Zhang, Yufan Song, Qian Guo	115
	Nanjing University of Aeronautics and Astronautics	
	Exact Observation Based Phase Preservation Bistatic SAR Sparse Imaging: Initial Result	
8476	Zhefan Jin, Jingjing Zhang, Yufan Song, Hui Bi	120
	Nanjing University of Aeronautics and Astronautics	
	Research on Radar Cross Section Measurement Based on Terahertz Radar Near-Field	
0514	High Resolution Imaging	104
8514	Ruijun Wang, Sisan He, Haowei Zhang	124
	Air Force Engineering University	
	Widely Linear Beamforming via Interpolated Difference-Sum Co-Array in Satellite	
8531	Communications	129
0551	Zhen Meng, Feng Shen, Fuqiang Li	129
	China University of Mining and Technology	
	Underwater Target Maneuver Detection and Motion Mode Recognition Based on	
	Bi-LSTM	
8532	Yan Zhu, Weining Mao	135
	Key Laboratory of Underwater Acoustic Signal Processing of Ministry of Education,	
	Southeast University	
	Improved Particle Swarm Algorithm for Sparse Array with Superior Global Sidelobe	
8541	Levels	140
56.12	Jinyang Luo, Yuyan Duan, Kun Li, Lixia Yang	
	Anhui University	
	Interrupted sampling forwarding jamming parameter estimation based on YOLOv7-tiny	
8564	Zhao peng Shi, Hao Wu, Xuan Zhu, Wan tian Wang, Xun Ni, Jia hao Zhang	144
	School of Electronic Information and Communications, Huazhong University of Science	
	and Technology	
	Knowledge Reasoning Based on The Knowledge Graph of Frequency Equipment for	
8621	System-level Electromagnetic Spectrum Planning	150
	Yuru Zhang, Jia Cao, Xiangyu Hao, Shuai Huang	
	China Academic of Electronics and Information Technology	
8627	Proportionation Enpowered Data-Reusing Ekblom Algorithm for Signal Enhancement	
	Ke Ren, Xinqi Huang, Weichao Yang, Xumin Yu	155
	China Academy of Space Technology Xi'an	

8628	Dependable Pipeline Detection algorithms for GPRs in Obscuration Environments Hongyu Zhou, Guanghui Xu, Yingsong Li, Zhixiang Huang	159
	Anhui University	
	Kernel Adaptive Filtering with Weibull M-transform Maximum Versoria Criterion	
8629	Chenchong Bi, Yingsong Li, Liping Li, Nikola Zlatanov	162
	Anhui University	
	Characterization and Analysis of Mutual Terrain-Scattered Interference Based on Different	
8673	Jamming Signal Waveforms	166
	Zexi Ren, Zhaolin Zhang, Mingliang Tao, Zixun Guo, Jia Su	
	Northwestern Polytechnical University Xi'an, China A Model-Based Spiking Neural Network Design for Real-time Spectra Analysis Using	
	LMS Algorithm	
8740	Lei Zhang	N/A
	University of Regina	
	Micromotion Gesture Recognition Technology Based on Millimeter-wave Radar	
8747	Zhaoqi Li, Dayu Cai, Fei Gao, Zheyi Li, Yingchun Li, Cong Wang, Panpan Tang,	176
8/4/	Jingchang Nan	176
	Liaoning Technical University	
	A Wideband Anti-Jamming Acquisition Algorithm Based on Fast FRFT for LEO Satellite	
8748	Mobile Communication	182
	Yi Pan, Chaoji Wu, Shujun Mo, Lei Ning	
	Shenzhen Technology University	
8751	Simultaneous Continuous- and Discrete-Time Unknown Input Filtering CHIEN-SHU HSIEH	190
0/51	Chinese Culture University	190
	Research on Low-Power FPGA Accelerator for Radar Detection	
8770	Shuaijie Liu, Kun Li, Jinyang Luo, Xiaolong Li	196
	Anhui University	
	A Screen-Shooting Resilient Video Watermarking Algorithm Utilizing Information	
8776	Membrane Overlay	200
8//0	Jiameng Wang, Xiang Li, Xiaolong Li, Yao Zhao	200
	Beijing Jiaotong University	
	A Self-interference Canceller Design Based on Knowledge-driven Neural Network	
8780	Peng Gao, Jinling Xing, Songhu Ge, Yu Guo, Zhongpu Cui, Fangmin He	206
	College of Electrical Engineering, Zhejiang University	
	Gridless Parameter Estimation for Integrated Sensing and Communications in Cellular Networks	
8783	Mengguan Pan, Yingsong Li, Lixia Yang, Anqi Xue, Zhixiang Huang, Guisheng Liao	212
	School of Electronic and Information Engineering, Anhui University	
	Robust DOA Estimation Against Outliers Based on Bias-compensated Adaptive Filtering	
8800	Wudang Xiao, Canping Yu, Yingsong Li, Liping Li, Dingcheng Zou, Nikola Zlatanov	218
	Anhui University	
	High Degree of Freedom Low Coupling Sparse MIMO Array	
QQA1	Yichang Yao, Baohe Pang, Yingsong Li, Canping Yu, Wudang Xiao, Liping Li, Nikola	222
8801	Zlatanov	223
	Harbin Engineering University	

	Stealth Backdoor Attack for Remote Sensing Image Classification	
8811	Yi Hua, Lifei Liu, Jing Cao, Hao Chen	229
	Beijing Institute of Aerospace Systems Engineering	
	Bayesian weighted Dynamic Distribution of Samples-based Remote Sensing Feature	
8812	Selection Method	234
0012	Yi Hua, Jing Cao, Lifei Liu, Hao Chen	254
	Beijing Institute of Aerospace Systems Engineering	
	Kernel Affine Projection Algorithms Based on the Robust Mixed-norm Method	
8827	Guoliang Li, Ji Zhao, Hongbin Zhang	240
	University of Electronic Science and Technology of China	
	Topic3: Microwave Technology and Antennas	
PID	Paper Information	Page
	Compact Tri-band Monopole Antenna for RFID/GPS/WLAN/WiMAX Applications	
8365	Ming Yang, Jinzhi Zhou	246
0000	West Anhui University	
	Neural Network-Based High-Power Microwave Near-Field Reconstruction Method	
8392	Haozhe Tian, Hui Deng, Minjie Li, Junbing Liu, Rongqiang Yang	250
3072	Beihang University	
	A Single-Layer Low-Profile Circularly-Polarized Filtering Antenna for 5.8GHz WLAN	
	Application	
8406	Jinping Zhang, Yingsong Li, Eugene Sinkevich, Vladimir Mordachev	253
	Harbin Engineering University	
	A Design for an Ultra-Wideband Antenna with Reconfigurable Band-Notch Capabilities	
8426	Hao Zhang, Fang Zhang	256
	College of Physical Science and Technology, Bohai University	
	A Wideband Circularly Polarized Folded Transmitarray Antenna With Linearly Polarized	
0.420	Feed	
8430	Xiangdong Sun, Xulong Guo, Yin Li, Yongliang Zhang, Yingsong Li	261
	Inner Mongolia Universit	
	Digital Twin System for Reflector Antenna Structure Performance Evaluation Based on	
9440	Surrogate Model	262
8440	Hanwei Cui, Binbin Xiang, Wei Wang, Peiyuan Lian, Jianping Zhou, Shangmin Lin	263
	Xinjiang University	
	Active Compensation of Reflector Antenna Structural Deformation Based on Deep	
8441	BP-Neural Network	267
0771	Tianxiang Zheng, Binbin Xiang, Shangmin Lin, Wei Wang, Peiyuan Lian, Hanwei Cui	207
	School of Mechanical Engineering, Xinjiang University, Urumqi, China	
	A Compact Wide Load Rectifier Based on A Grounded Transmission Line	
8448	Rufan Liu, Xuan Fan, Zijun Ma, Yang Yang, Huacheng Zhu	271
	College of Electronics and Information Engineering, Sichuan University	
	Design of Resonant SIW Antenna in UHF Band	
8457	Shengchuan Xiao, Xiaoxiang He, Yang Yang, Zilong Chen	274
	Nanjing University of Aeronautics and Astronautics	

8478	A Non-contact Choke Structure for Broadside Adjustable Waveguide Phase Shifter Xin Li, Bangji Wang Southwest Jiaotong University	279
8488	A Vacuum Sealed Rotary Joint with Low Loss for High Power Microwave Application Yu Yang, Ping Xie, Bixiao Jiang, Shitao Chen, Yong Liao, Chuan Yu Institute of Applied Electronics, China Academy of Engineering Physics	283
8515	A Study on the Wide-Angle Stability of Programmable Metasurfaces with Rectangular and Triangular Grids Linying Fang, Lu Liu, Peng Chen, Tongyu Ding School of Ocean Information Engineering, Jimei University, Xiamen 361021, China	285
8526	Analysis of the Imaging Performance of the Mouth-shape Sparse MIMO Array Minjia Chai, Qian Chen, Bowen Wu, Songlin Yan, Xinyue Guo, Zhixiang Huang Anhui University	289
8528	A Design of a Broadband Circularly Polarized Antenna Based on LTCC Technology Mengying Han, Shufeng Sun, Xu Yang China Academy of Space Technology, Xi'an Branch	293
8535	A RFID Chipless Tag Based on Hybrid Frequency-Polarization Coding Zilong Chen, Yang Yang, Xiaoxiang He, Shengchuan Xiao Nanjing University of Aeronautics and Astronautics	296
8539	D-plane Cross-polarization Suppression of Microstrip Patch Antennas Guanglei Song, Qingnan Rong China Academy of Aerospace Science and Innovation	302
8543	Radiation Pattern Computation with the Variable Resolution for Reflector Antennas using the CZT Yang Zhang, Binbin Xiang, Shangmin Lin, Yongqin Zhao, Shike Mo, Wei Wang School of Mechanical Engineering Xinjiang University	305
8561	Center-Fed Dual-band Dual-Sense Wide Axial-Ratio Beamwidth Circularly Polarized Antenna Wen-Yuan Xie, Zhi-Hong Tu, Wen-She Huang, Xiao-Dao Huang, Zhao-Jiong Wu, Zhi-Yong Wen Shenzhen-Zhongshan Link Administration Center, Guangdong Provincial Key Laboratory of Tunnel Safety and Emergency Support Technology and Equipment	309
8596	An Artificial Electromagnetic Metasurface For Special Reflective Reconfigurable Antenna Array Yitong Cheng, Yuqi Zhang, Liang Zhou, Qingfeng Kong, Yiping Zang, Mengxin Ma, Jie Ma, Peng Li Xi'an Institute of Electromechanical Information Technology	312
8599	A Dual-Polarization Ultra-Wideband Frequency Selective Surface Based On External Dielectric Loading At Large Angle of Incidence Huan Gu Jiangsu JARI Information Technology Co.,Ltd	316
8600	Antenna Stealth Design Based on Polarization Reconfigurable Metasurfaces Huan Gu Jiangsu JARI Information Technology Co.,Ltd	322

8605	All-Metal Metamaterial Based Leaky Wave Antenna with High Power Capacity and Fixed Frequency Beam Scanning	327
	Yu Yang, Yeping Zhang, Ping Xie, Bixiao Jiang, Shitao Chen, Chuan Yu	327
	Institute of Applied Electronics, China Academy of Engineering Physics	
	A Novel Broadband Low Profile Circularly Polarized Antenna Using AMC	
8607	Haowen Shi, Jilong Cui, Zijian Xing	330
	School of Electronics and Information, Northwestern Polytechnical University	
	A planar wideband quasi-isotropic antenna based on triple current line sources theory	
8633	Heng Gui, Zhixi Liang, Shaoyong Zheng	333
	Sun Yat-Sen University	
	Research on FDFD Modeling and Wireless Power Transmission of Near-sea Surface	
8681	Xiang Chi, Rong Bao, Jinyi Hui, Jingkuan Mu, Chunliang Liu, Chunjie He	337
	Xian Jiaotong University	
	Low Side-lobe High-Mode OAM Beam Generation Technique Based on Concentric Ring	
8692	Array	341
	Shitao Zhu, Yunlong Lu, Die Li, Yiheng Nian, Caipin Li, Anxue Zhang	
	School of Information and Communications Engineering, Xian Jiaotong University	
0.50	Ultra-wideband Vivaldi antenna for applications in microwave medical imaging	244
8728	Yongli Han, Chaozhu Zhang, Mingyuan Ma, Xinyu Liao	344
	Qilu University of Technology Jinan, China	
0521	Efficiency Analysis of UCAA for OAM Beam Generation	2.40
8731	Lyu Lyu, Shitao Zhu, Die Li, Caipin Li	348
	Xian Jiaotong University	
0755	A 170~260GHz On-wafer Probe Based on High Resistivity Silicon	251
8755	Jingsong Xu, Cheng Guo, Qian Yang, Anxue Zhang Department of Floatronic and Information Engineering Vi'an Jingtong University	351
	Department of Electronic and Information Engineering Xi'an Jiaotong University	
0771	A High Gain Omnidirectional Dipole Array Antenna for WiFi-6E Wenzhe Gu, Botao Feng, Yiyuan Luo, Xuexin Zhu, Yun Lu	254
8771	Huizhou University	354
	Transparent CPW-fed Antenna Array for 5G Communication Applications	
8779	Shuo Chen, Maopeng Jin, Xudong Hao, Zhengquan Zu, Zixi Li, Yansheng Li	358
0113	Qingdao University of Technology	330
	Testing and Analysis of DC/DC Circuit Boards Based in ESD Interference Sources	
	Jinxin Zhang, Dezhi Zeng, Deren Feng, Jinfu Liao, Zhaoquan Chen, Rui Ding, Rui Zhou,	
8798	Jinming Chen, Weiheng Shao	362
0.70	School of Electric and Information Engineering Anhui University of Technology	002
	Ma'anshanAnhui, China	
	Integrated Design of X-band Dual Circularly Polarized Antenna and Filter	
8809	Jiamin Zhang, Shigang Zhou, Jianying Li	366
	Northwestern Polytechnical University	
8826	A Seawater Reconfigurable Antenna Based on 3d Printing Technology	369
	Jing Gao	
	Liaoning Technical University	

8832	A Planar Dual Circularly Polarized Wide-Angle Scanning Phased Array Zhe-Jun Zhu, Yu-Hang Yang, Lian-Wei Zhu, Yi-Lin Dong, Shi-gang Zhou Northwestern Polytechnical University	372
8840	Design of Dual-Polarization Shared Aperture Antenna Based on Frequency Selective Surface Wenhan Zhang, Lu-Yang Ji, Yuhang Yang, Wuyi Huang, Shigang Zhou Northwestern Polytechnical University	375
8841	V-band Transceiver Based on Through Silicon Via (TSV) Technique Yan-hong Gao, Dong-bo Chen, Shi-gang Zhou, Xi-long Lu The 13th Research Institute of China Electronics Technology Group Corporation	378
8842	Design of a broadband tightly coupled circular array antenna Li Sun, Yihang Li, Wang Li, Junyi Gu, Yangming Wan, Guanjun Qian Northwestern Polytechnical University	381
8843	A novel 2×6 beamforming network for shaping flat-topped radiation patterns Li Sun, Wang Li, Yihang Li, Junyi Gu, Yangming Wan, Guanjun Qian Northwestern Polytechnical University	385
8844	Novel Integrated Ka–Band Amplitude Limiting Low Noise Amplifier Design Shixiong Deng, Yue Zhang, Weidong Kong, Qiaonan Wang, Biao Zhou, Shubin Chen, Changzheng Gao, Guohui Yang, Kuang Zhang Hebei Semiconductor Research Institute	389
8850	A Fast Analysis Method of Port Voltage Standing Wave Ratio for Special Cascade Networks Weidong Kong, Jihu Li, Kang Wu, Qiaonan Wang, Shixiong Deng, Peng Lin, Cong Wang, Kuang Zhang, Guohui Yang	393
	Hebei Semiconductor Research Institute	
	Hebei Semiconductor Research Institute Topic4: Microelectronic Devices and Integrated Circuits	
PID		Page
PID 8431	Topic4: Microelectronic Devices and Integrated Circuits	Page
	Topic4: Microelectronic Devices and Integrated Circuits Paper Information A Novel Window Function for Memristor Model with Short-Term and Long-Term Memory Behavior Nan Shao, Maged Al-Barashi	
8431	Topic4: Microelectronic Devices and Integrated Circuits Paper Information A Novel Window Function for Memristor Model with Short-Term and Long-Term Memory Behavior Nan Shao, Maged Al-Barashi School of Aeronautics and Astronautics, Guilin University of Aerospace Technology An Energy Efficient CMA Equalizer based on Approximate Computing Junjie Zhou, Ke Chen	396
8431	Topic4: Microelectronic Devices and Integrated Circuits Paper Information A Novel Window Function for Memristor Model with Short-Term and Long-Term Memory Behavior Nan Shao, Maged Al-Barashi School of Aeronautics and Astronautics, Guilin University of Aerospace Technology An Energy Efficient CMA Equalizer based on Approximate Computing Junjie Zhou, Ke Chen Nanjing University of Aeronautics and Astronautics Manufacturing Process and Comparative Analysis of MEMS Accelerometers Zhang Shilong, Tang Zhengyang, Chen Kejun	396

8551	An Approach to Enhance the Efficiency of RISC-V Verification Using Intelligent Algorithms Shuying Xia, Ying Zhang, Zixiao Wang, Ruhui Ding, Hewei Cui, Xin Chen Nanjing University of Aeronautics and Astronautics	419
8597	Error Compensation based Approximate Booth Multiplier with Improved Booth Encoder and Low Complexity Compressor Zhiming Zhu, Junqi Huang, Hongyi Zhang, Huali Jiang, Xingen Gao Xiamen University of Technology	424
8649	Modulation and Demodulation: A Defense Method Against Weight Bit-Flip Attacks in Floating Point CNN Hardware Accelerators Wang Zixiao, Zhang Ying, Ding Ruhui, Xia Shuying, Fang Zhiyu, Chen Xin Nanjing University of Aeronautics and Astronautics	430
8714	Design and Optimization of a Low-Noise Mixer Using Advanced Design System (ADS) for RF Applications Xudong Hao, Xiao Wang, Shuo Chen, Zhengquan Zu, Zixi Li, Yansheng Li Qingdao University of Technology	436
8807	Detection of Hardware Attacks in Network on Chip Based on Machine Learning Ruhui Ding, Ying Zhang, Shuying Xia, Zixiao Wang, Jie Deng, Xin Chen Nanjing University of Aeronautics and Astronautics	440
8837	A Novel Design Method for a Miniaturized Vertical Interconnection TSV Structure Yihao Xia, Qingyu Kong, Zeyuan Chen, Zhongpeng Liu, Yanhong Gao, Dongbo Chen, Shigang Zhou, Xilong Lu School of Microelectronics Northwestern Polytechnical University Taicang, China	446
8838	Three-Dimensional Silicon Based SIP Design of the Four-Channel Phased Array Radar TR Module for Ka-band Applications Yanhong Gao, Dongbo Chen, Yihao Xia, Qingyu Kong, Zeyuan Chen, Zhongpeng Liu, Shigang Zhou, Xilong Lu The 13th Research Institute of China Electronics Technology Group Corporation Shijiazhuang, China	449
	Topic5: Computer Science and AI Technology	
PID	Paper Information	Page
8373	Study on Oracle Bone Image Preprocessing Based on Fusion of Denoising and Enhancement Techniques: Improving Text Detection Accuracy Hankun Yang, Bowei Zhu, Yanmin Zhang, Beiming Li Yantai Research Institute of Harbin Engineering University	452
8375	Research on Document Image Binarization: A Survey Jinlong Ho, Min Liu School of Opto-Electronic Comunication Engineering Xiamen University of Technology	457
8385	MonoMixNet:Self-Supervised Monocular Depth Estimation with a Mixed Network Hongming Tao, Ping Wang, Junqing Wang, Yifan Cheng, Fajian Liu School of Communication and Information Engineering Chongqing University of Posts and Telecommunications	463

8389	Design of an Airport Baggage Soft and Hard Bag Recognition Device Xiuqing Yang, Yong Xiang, Shilai Liao, Lihua Zhong, Shu Zhou, Yue Xu Civil Aviation Logistics Technology Company Limited The Second Research Institute of CAAC	469
8394	SSM-YOLO: Lesion Detection Algorithm for Colorectal Polyps Baojie Zhang, Zhongxun Wang, Yiyan Zhang, Peixue Liu Yantai University	475
8412	Lung Nodule Detection Algorithm Based on Improved YOLOv5 Network Modeling Xinchan Li, Pengfei He, Peixue Liu, Yiyan Zhang Yantai University	482
8413	Integrated Method of Deep Learning and Large Language Model in Speech Recognition Bo Guan, Jin Cao, Xingqi Wang, Zhuoyue Wang, Mingxiu Sui, Zixiang Wang Virginia Tech	487
8435	A Fast Stereo Matching Network Based on Multi-Scale Feature Fusion Bingxuan Zhang, Wangjun Wan, Shaoye Liu, Xiangping Wu School of Information Engineering China Jiliang University	491
8436	A Dehazing Algorithm for Endoscopic Images Based on Cycle GAN Shaoye Liu, Ling Dai, Han Dong, Bingxuan Zhang, Xiangping Wu School of Information Engineering China Jiliang University	497
8437	Dual-branch Brain Tumor Classification Based on CNN and Transformer <i>Qian Wang, Haoshu Shi, Xiangping Wu, Xia Li</i> School of Information Engineering China Jiliang University	503
8443	Exploratory Application of Dynamic Incremental-based Graph Attention Networks for Financial Fraud Recognition in Listed Companies Wu Chengying, Liu Ruijia, Tan Shide Zhejiang University	509
8452	Drivable area detection in off-road for Autonomous Driving Luhan Wu, Tangyou Liu Donghua University	515
8469	A Fine-Grained Clothing Style Image Segmentation Method Based on Deeplab v3+ Qinyin Gong, Xiaohui Li College of Fashion and Design of Donghua University	521
8485	An Intelligent Classification Method for Vibration Signals Based on Random Forest <i>Yao Zhen, Kun Li, LiXia Yang</i> Anhui Unversity	527
8494	A Network Security Management System Structure Based on Internet of Things Shiliang Luo Huizhou University	531
8582	Randomized-enhanced Magnitude Channel Pruning for Radar Jamming Detection Xun Ni, Hao Wu, Xuan Zhu, Zhao peng Shi School of Computer Science and Technology Huazhong University of Science and Technology	534

PID	Paper Information	Page
	Topic7: Sensors	
8439	Research on Measurement Method for Secondary Electron Emission Coefficient of Aerospace Material Wang Sizhan, Wang Zhihao, Nie Xiangyu, Yang Xiaoyi Beijing Institute of Spacecraft Environment Engineering	587
PID	Paper Information	Page
	Topic6: Advanced Materials and Electronic Devices	
8830	A Point-interval Prediction Method for Photovoltaic Power Generation Considering Weather Types: a Novel Hybrid Deep Learning Model Yuzhuo Dong, Wentao Ma, Jiahui Dai, Lihong Qiu, Peng Guo Xi'an University of Technology	581
8782	Probing the Interaction Effect in Moderated Multiple Regression Yanchun Jin, Bing Guan Huizhou University	578
8773	Self-Supervised Learning for Camouflaged Object Detection Zhouyong Liu, Taotao Ji, Chunguo Li, Luxi Yang southeast university	572
8769	BeautyGuard: Style Transfer-Based Adversarial Beautification for Facial Privacy Protection Tiankuo Shi, Jingtian Wang, Xiaolong Li, Yao Zhao Beijing Jiaotong University	566
8767	Cross-Language Code Development with Generative AI: A Source-to-Source Translation Perspective Laxmisha Rai, Smriti Khatiwada, Chunrao Deng, Fasheng Liu Shandong University of Science and Technology	562
8736	Time—Frequency Analysis of Phase Encoding in Spiking Neural Networks Using Polar Coordinates Lei Zhang University of Regina	N/A
8732	Optimal Arrangement of Time-shiftable Loads for Photovoltaic Power Shuang Qie, Xuan Liu, Jian Dou, Yue Tang, Yina Du, Yue Han China Electric Power Research Institute Co., Ltd	550
8686	Optimizing Antenna Design through AI Integration: A Concise Review Xiaotian Liu, Kwok L. Chung, Wenbiao Li, Ruihong Li, Shuwei Huang, Yingsong Li Huizhou University	545
8663	An Effective Kriging-assisted Water Flow Optimization for Ultra-wideband Monopole Antenna Design Xianan Ling, Xingning Jia Ningxia University	540

8410	Magnetic Core Inductor-Based Resonator for Magnetic Sensing and Communication Zhiguang Wang, Zhiyuan Deng, Qingren Jin, Qiancheng Lv, Ke Zhou, Baihua Lu, Bing Tian, Yuhang Ma, Ming Liu Xian Jiaotong University	593
8501	Highly Sensitive Distributed Strain Sensor Based on φ-OTDR with Ultraweak Fiber Bragg Grating Yunfan Yang, Chunfu Cheng, Wei Fan, Yiwen Ou, Hui Lv, Bo Deng, Tianxin Huang, Zhihong Wu Hubei University of Technology	597
8808	Electromagnetic Model and Validation of Multi-point Near-field Cardiac Sensing System Li Chenming, Zheng Shilie, Zhang Xianmin, Hui Xiaonan Zhejiang University	603
	Topic8: Electronical Engineering and Automatic Control	
PID	Paper Information	Page
8382	Scheme of Low Transmitter Sampling Rate for New Generation Railway 5G Wideband Power Amplifiers Shanghui Xiao, Xiaopeng Zhang, Boyan Zhang, Xiangjie Xia School of Telecommunication Engineering, Sichuan Railway College	606
8386	A High Impedance Grounding Fault Location Method for Transmission Lines Based on Electromagnetic Time Reversal and Harmonics Fajian Liu, Ping Wang, Junqing Wang, Hongming Tao, Yifan Chen School of Communication and Information Engineering, Chongqing University of Posts and Telecommunications	609
8619	Path Planning Method for Maritime Drones Based on NSGA II Algorithm Xiang Li Hubei University	615
8643	Improvement Plan for cyber-security of DCS Control System of Nuclear Power Plants Qiang Wang, Yuan Xiang, Daming Wang China Nuclear Control System Engineering Co.,Ltd	620
8682	Robust Event-Triggered Model Predictive Control for Uncertain Linear Parameter-Varying Systems Hongru Jiang, Yue Guo, Tianxin Liu, Quan-Yong Fan, Kuan Lu Northwestern Polytechnical University	625
8831	EFT Immunity Test and Damage Localization of C-Band Limiters Jiacheng Ma, Weiheng Shao, Deren Feng, Zhaoquan Chen, Bin Liu Anhui University of Technology	631
	Special Session 1: Electric energy conversion and intelligent control	
PID	Paper Information	Page
8409	Robust Estimation of Lithium-ion Battery State of Health via Improved Extreme Learning Machine Xue Jingsong, Ma Wentao, Yang Bo, Cai Panfei, Guo Peng Xian University of Technology	635

8631	A Control Method for Current Sharing in Interleaved LLC Resonant Converter Yuan He, Yetao Jia, Longxiang Gao, Wei Xue, Yan Yang, Tian Gao Northwestern Polytechnical University	641
8720	Load Current Feedforward Fuzzy Adaptive PI Control Strategy For Single-phase Dual Active Bridge Lina Dong, Xueqin Bi, Yuanyuan Fu Xi an Technological University	646
8722	Thyristor Conduction Angle Acquisition Based on Strong Tracking Filter Zhang Liguang, Liu Shan, Zhao Yuqian, Zhang Yuzhe Xian Technological University	653
8725	Research on Power Efficiency Optimization of Resonant BD-WPT Zhang Yu, Wang Qi, Li Wang, Liu Shan Xi'an Technological University	658
Spe	cial Session 2: Advanced Technologies and Emerging Applications for Active and Pas Sensors	sive
PID	Paper Information	Page
8482	Statistical Characteristics Analysis based on a Measured Ku-band Sea Clutter Dataset Zijun Zhang, Yifei Fan, Shaofeng Zhang, Jia Su, Zixun Guo, Mingliang Tao Northwestern Polytechnical University	664
8592	An Jamming Mitigation Method For Time-Domain Phase Modulation of Electromagnetic Metasurfaces Jiarong Song, Jia Su, Guonan Cui, Zhaolin Zhang, Tao Li, Xiangyang Liu School of Electronics and Information	668
8640	Recognition and Classification of Radar Targets Base on Multiple Features of High-Resolution Range Profiles Yixiao Liu, Tao Li, Zhaolin Zhang, Zixun Guo Northwestern Polytechnical University	672
8647	Automatic Radar Antenna Scan Type Recognition Based on the Residual Network Yanyun Gong, Danzi Qubi, yifei Fan, Shuting Tang, Zixun Guo, Xiangyang Liu School of Electronics and Information Northwestern Polytechnical University	677
8670	Point Cloud Generation with Millimeter-Wave Radar for UAV Taxiing Xuchen Wang, Zhaolin Zhang, Jia Su, Zixun Guo, Jun Fan Northwestern Polytechnical University, Xi'an, China	681
8674	Characterizing the Mutual Terrain Scattered Interference in Spaceborne SAR Images under Different Terrains Yu Xin, Zexi Ren, Weike Li, Huanyu Sun, Mingliang Tao Beijing Institute of Remote Sensing Information	685
	Special Session 3: Antennas and antenna arrays for MMW and THz applications	
PID	Paper Information	Page
8454	A Serial-Fed Antenna Implementation for 60GHz Millimeter-Wave Radar Altimetry on Unmanned Aerial Vehicles Yong Hu, Quan Sun, Daiweixuan Yang, Tongyu Ding, Ying Huang Jimei University	689

8455	Design of a Potter Horn Antenna Jing Wu, Chongzhi Han, Xuchu Deng, Jun Xiao Jimei University	693
8458	A Low-profile Wideband Antenna Based on Decoupling Surface for Millimeter-wave Phased Array Application Bao Xiong, Yongzhong Zhu, Leng Han, Wenxuan Xie Engineering University of PAP	696
8467	Design and Simulation of Channel Simulator for Complex Enclosed Space Yan Wang, Tao Zhang, Danqing Zou, Yu Mao, Mengyu Wang Shenyang Aircraft Design and Research Institute	698
8492	Iterative Equal-scale Defocused Frequency Domain Stitching Phase Retrieval Techniques Based on the Phase Transfer Function Youkan Peng, Yonggang Zhou Nanjing University of Aeronautics and Astronautics	701
8512	A Series-fed Frequency-scanning Antenna for UAV's Obstacle Avoidance Radar Feixiang Luo, Quan Sun, Mengchun Wu, Chong-Zhi Han, Lu Liu Jimei University	707
8516	Broadband Orthomode Transducer Based on the Boifot Junction Jizhao Wang The China Mobile Group Device Co., Ltd	710
8517	A Wideband 8-Element Dual-Circularly-Polarization Dielectric Rod Antenna for 5G Millimeter-Wave Communications Yani Huang, Guji Gong, Mengchun Wu, Chong-Zhi Han, Yinqing Fang Jimei University	712
	Special Session 4: 5G/6G LEO Satellite Mobile Communication	
PID	Paper Information	Page
8530	A Flexible Resource Allocation Algorithm in Dual-Timescale Beam Hopping Satellite Systems Shuangyi Li, Haoyu Sun, Jizhao Lei, Xiaobo Ma, Hao Qin Xidian University	714
8566	Chaotic Weighting Random Integration-Based Data Augmentation for Radio Frequency Fingerprint Identification With Extremely Small Sample Size Haotian Zhang, Yuan Jiang, Lei Zhao 1. School of Electronics and Communication Engineering, Sun Yat-Sen University, Shenzhen, China. 2. Guangdong Provincial Key Laboratory of Sea-Air-Space Communication, Shenzhen, China.	720
8567	An Iterative Active Constellation Expansion Method for PAPR Reduction in DZT-OTFS System Yuhua Chen, Yuan Jiang, Lei Zhao Sun Yat-sen University	726
	A Concatenated Mapping ZC Sequences Based Large-Capacity Grant-Free Random Access Preamble Design Method for Satellite Internet of Things	

8697	Joint User Activity Detection and Channel Estimation for Grant-Free Temporal-Correlated Random Access in LEO Satellite Based IoT Sheng Zhong, Li Zhen, Shuchang Li, Ping Dong, Hao Qin Xi'an University of Posts and Telecommunications	738
8796	A Novel Robust Adaptive Beamforming Algorithm Based on Steering Vector Estimation and Covariance Matrix Reconstruction Rao Mingzhao, Jiang Yuan, Zhao Lei, Wang Lei, Sun Xinghua Sun Yat-Sen University	744
	Special Session 6: Radio Fuze Detection Technology	
PID	Paper Information	Page
8477	Wide Solid Angle Scanning Conical Conformal Phased Array Antenna Based on Bidirectional Beam Qiuyan Liang, Rui Xu, Zikang Xing Science and Technology on Electromechanical Dynamic Control Laboratory	750
8542	A Fuze-oriented Multi-parameter Energy-type Interference Environment Model Kaili Yang, Ruihu Wen, Wei Chen, Zitong Li, Panxiong Yang, Ce Bian, Yongqin Huang, Mingyang Xue Xi'an Institute of Electromechanical Information Technology	753
8544	A Design on Silicon-Based Millimeter-Wave Low Noise Amplifier Circuits Zikang Xing, Qiuyan Liang, Rui Xu Xi'an Institute of Electromechanical Information Technology	757
8586	A Power Supply Method for Detonation Control Module with Threshold of Opening and Closing Voltage Pu Liu, Tengfei Xu, Kang Zhang Xi'an Institute of Electromechanical Inforation Technology	760
8598	Overview of the Research Status of Laser Imaging Fuze Zitong Li, Kaili Yang, Ruihu Wen, Wei Chen, Panxiong Yang, Ce Bian, Yongqin Huang, Mingyang Xue Xi'an Institute of Electromechanical Information Technology	764
8644	Design of Narrow-pulse Laser Transmitter Circuit for High-precision Pulse Laser Proximity Fuze System Panxiong Yang, Wanggao Hou, Kaili Yang, Yongqin Huang, Ce Bian, Zitong Li Xi'an Institute of Electromechanical Information Technology	768
8648	A Low-Profile Wideband Pattern Diversity Antenna with a Nonuniform Metasurface for Radio Fuze Xiyu Wang, Dapeng Wang, Liping Xu, Ce Lu, Shuai Wen, Fuqiang Cao, Yuecheng Zhang, Zhoupeng Wei Xi an Institute of Electromechanical Information Technology	773
8683	Overview of Anti-chaff Interference of Radio Fuze Fuqiang Cao, Dapeng Wang, Liping Xu, Ruihu Wen, Xiyu Wang, Shuai Wen, Yue Ma, Zhoupeng Wei Xian Institute of Electromechanical Information Technology	776

Research on a Fiber Optic Magnetic Field Sensor Based on Fuze Platform Ce Bian, Panxiong Yang, Haibin Wang, Ruihu Wen, Ming Li, Chong Song, Kaili Yang, Yongqin Huang Xi'an Institute of Electromechanical Information Technology	780
PAPR Minimization based on Symbol Level Precoding in Multi-Receiver MISO-OFDM Fuze Li Jiabao, Ma Jie, Li Weishan, Xue Mingyang, Fan Chaoyu Xi an Institute of Electromechanical Information Technology	783
An ADMM Approache for PAPR Reduction in Multi-Receiver MISO-OFDM Fuze Li Jiabao, Qin Yuanyuan Xian Institute of Electromechanical Information Technology	788
Outlier Detection Based On Heuristic Clustering Algorithm Xue Mingyang, Wen Ruihu, Li Jiabao Xi an Institute of Electromechanical Information Technology	794
A Novelty Signal Reconstruction Method of Millimeter Wave Fuze Based on Compressed Sensing Chubao Li, Biwen Jiang, Shenghua Fu, Jiuxing Yuan, Jinggang Yang Xi'an Institute of Electromechanical Information Technology	800
Special Session 7: Miniatured Wideband Antenna	
Paper Information	Page
A Lumped Elements Loaded Over-Hundred-Octave Super-Wideband Antenna Cuiqin Xie, Jing Chang, Yinfeng Xia, Huakun Zhang Anhui Vocational and Technical College	808
Design of a Dual-Band Helix Antenna Using Parallel Arms	
Hao Ren, Shutao Fang, Ziting Li, Miaomiao Cao, Wei Wang, Xiaofei Wang Beijing Institute of Space Long March Vehicle	810
Hao Ren, Shutao Fang, Ziting Li, Miaomiao Cao, Wei Wang, Xiaofei Wang	810
Hao Ren, Shutao Fang, Ziting Li, Miaomiao Cao, Wei Wang, Xiaofei Wang Beijing Institute of Space Long March Vehicle A Wide-band Wide-beam Metal Vivaldi Antenna Yuheng Tian, Guodong Liu, Xiaofei Wang, Shuo Yang, Xiaoning Huo, Weiwei Guan	
Hao Ren, Shutao Fang, Ziting Li, Miaomiao Cao, Wei Wang, Xiaofei Wang Beijing Institute of Space Long March Vehicle A Wide-band Wide-beam Metal Vivaldi Antenna Yuheng Tian, Guodong Liu, Xiaofei Wang, Shuo Yang, Xiaoning Huo, Weiwei Guan Beijing Institute of Space Long March Vehicle A High-gain and Low-sidelobe Directional Radiating Waveguide Slot Antenna Guodong Liu, Yuheng Tian, Xiaofei Wang, Xiaoning Huo, Mengfei Feng, Shuang Wang	813
Hao Ren, Shutao Fang, Ziting Li, Miaomiao Cao, Wei Wang, Xiaofei Wang Beijing Institute of Space Long March Vehicle A Wide-band Wide-beam Metal Vivaldi Antenna Yuheng Tian, Guodong Liu, Xiaofei Wang, Shuo Yang, Xiaoning Huo, Weiwei Guan Beijing Institute of Space Long March Vehicle A High-gain and Low-sidelobe Directional Radiating Waveguide Slot Antenna Guodong Liu, Yuheng Tian, Xiaofei Wang, Xiaoning Huo, Mengfei Feng, Shuang Wang Beijing Institute of Space Long March Vehicle Wideband Self-Phased Dipole Antenna With Circular Polarization Ziting Li, Wei Wang, Hao Ren, Shutao Fang, Chuo Yang, Xiaofei Wang	813
	Xi'an Institute of Electromechanical Information Technology PAPR Minimization based on Symbol Level Precoding in Multi-Receiver MISO-OFDM Fuze Li Jiabao, Ma Jie, Li Weishan, Xue Mingyang, Fan Chaoyu Xi an Institute of Electromechanical Information Technology An ADMM Approache for PAPR Reduction in Multi-Receiver MISO-OFDM Fuze Li Jiabao, Qin Yuanyuan Xian Institute of Electromechanical Information Technology Outlier Detection Based On Heuristic Clustering Algorithm Xue Mingyang, Wen Ruihu, Li Jiabao Xi an Institute of Electromechanical Information Technology A Novelty Signal Reconstruction Method of Millimeter Wave Fuze Based on Compressed Sensing Chubao Li, Biwen Jiang, Shenghua Fu, Jiuxing Yuan, Jinggang Yang Xi'an Institute of Electromechanical Information Technology Special Session 7: Miniatured Wideband Antenna Paper Information A Lumped Elements Loaded Over-Hundred-Octave Super-Wideband Antenna Cuiqin Xie, Jing Chang, Yinfeng Xia, Huakun Zhang Anhui Vocational and Technical College

8724	Dual-Radiation Mode Leaky-Wave Antenna with Flat-Topped and End-Fire Beams Based on the Composite Structure Jianing Zhang, Yunjie Geng, Xianbao Zheng, Jiawei Yang, Xi Li BeiJing Jiaotong University	829
8730	Multi-Objective Beam-Pattern Synthesis with Consideration of Mutual Coupling by MOEA/D-IWO-AEP Algorithm Shutao Fang, Hao Ren, Wei Wang, Xiaofei Wang, Xuan Wang, Ziting Li Beijing Institute of Space Long March Vehicle	832
8752	A novel tightly coupled dual-polarized crossed dipole array antenna Xuebin Li, Ziyu Zhang, Xianbao Zheng, Jieying Bai, Xi Li, Jiawei Yang Xidian University	835
	Special Session 8: microwave nonlinearity and microwave sensing	
PID	Paper Information	Page
8584	Measurement of Sheet Resistance of Heated Coated Glass using Cylindrical Cavity Resonator Wei Liu, Ming Ye, Gang Yu Xian University of Architecture and Technology	839
8589	An Intermodulation Matrix Method for PIM Evaluation of Microstrip Circuit Xiaolong Zhao, yongning He, Anxue Zhang Xian Jiaotong University	842
8790	Preliminary Study on Noncontact Measurement of Mechanical Vibration by Near-field Microwave Ye Ming, Yongjiang Bai, Haolin Shi, Jianqiao Chen, Fang Yang Xian University of Architecture and Technology	845
8794	Preliminary study on silicon wafer characterization using quasi-optical resonator Wang Xueer, Ming Ye, Haotian Guo Xian University of Architecture and Technology	848
8847	Closed-form Equation for Passive Intermodulation of Microstrip Line due to Resistivity Nonlinearity Xiaolong Zhao, yongning He, Anxue Zhang Xian Jiaotong University	851
Specia	l Session 9: Design and Evaluation of Antenna Arrays for Next Generation Communic	cations
PID	Paper Information	Page
8278	A THz Measurement Technique of Large Aperture Antenna based on Compact Range <i>Qitao Zhang, Lingge Liu, Ye Chen</i> Institute of Space Radio Technology of Xi'an	854
8279	A Compact Range Quiet Zone Detection Technology for Large Aperture THz Antennas Qitao Zhang, Lingge Liu, Yu Wang Institute of Space Radio Technology of Xi'an	859
8463	A Gain-Enhanced 77GHz Series-fed Patch Antenna Xinyue Guo, Qian Chen, Bowen Wu, Songlin Yan, Minjia Chai, Zhixiang Huang Anhui university	863

8465	Fast Total Radiated Power Tests Based on Igloo Sampling Jianchuan Wei, Xiaoming Chen Xian Jiaotong University	866
8545	A Wideband Cross-dipole Circularly Polarized Phased Array Antenna Mengting Yang, Qian Chen, Xiangyu Zhou, Songlin Yan, Minjia Chai, Zhixiang Huang Anhui University	870
8590	Diagnosis Using Equivalent Magnetic Current Method for Transmitarry based CART Jiaqian Ding, Junhao Zheng, Xiaobo Liu, Xiaoming Chen Xi'an Jiaotong University	873
	Special Session 10: Advanced multifunctional metasurfaces: physics and applications	
PID	Paper Information	Page
8508	Multi-polarized Phase Reconfigurable Metasurface Weiren Zhu, Jie Tian Shanghai Jiao Tong University	877
8638	An Optically Transparent Infrared Selective Emitter accompanied by Customizable Digital Distribution Yina Cui, Jun Wang, Huiting Sun, Yan Pang, Jiafu Wang Air Force Engineering Universivity	880
8743	Microwave Polarization Detection System Based on Spoof Localized Surface Plasmons Fei Ma, Yumeng Yang, Bo Wang, Hongsheng Chen, Fei Gao State Key Laboratory of Extreme Photonics and Instrumentation, College of Information Science and Electronic Engineering, Zhejiang University Hangzhou 310027, China International Joint Innovation Center, The Electromagnetics Academy at Zhejiang University, Zhejiang University Haining 314400, China	883
	Special Session 11: RIS-aided Communication Technology	
PID	Paper Information	Page
8249	Intelligent Reflecting Surface Aided Wireless Communication Systems: Joint Location and Passive Beamforming Design Jintao Luo, Sixing Yin Beijing University of Posts and Telecommunications	889
8540	Phase-shift Optimization and Trajectory Design for Wireless Communications aided by Double UAV-mounted Intelligent Reflecting Surfaces Jie Song, Sixing Yin Beijing University of Posts and Telecommunications	896
8712	Elimination of Interference Analysis for RIS Element Demage Sipei Min, Canping Yu, Liping Li, Yingsong Li, Nikola Zlatanov Anhui university	901
	Special Session 12: AI-based radar target detection, imaging, and recognition	
PID	Paper Information	Page

	Intelligent Perception Method of Shipborne Radar Jamming Signal Based on YOLOv8	
8418	Xuan Zhu, Hao Wu, Fangmin He, Zhaopeng Shi, Xi Yu, Jin Meng	904
	School of Electrical Engineering and Automation, Wuhan University	
	ISAR Super-Resolution Imaging and Denoising Based on 2D Complex-Value	
8466	Approximate Message Passing Network	910
0400	Fengkai Liu, Darong Huang, Weike Feng, Xinrong Guo, Cunqian Feng	910
	Air Force Engineering University	
	A Real-Valued Off-Grid DOA Estimator Via Sparse Bayesian Learning Exploiting Wishart	
8490	prior	916
0470	Ninghui Li, Xiaokuan Zhang, Weike Feng, Fan Lv, Zhaolong Wang, Binfeng Zong	710
	Air Force Engineering University	
	Radar HRRP Estimation Based on Deep Unfolding Networks under Interrupted Sampling	
8572	Repeater Jamming	922
0372	Tao Pu, Weike Feng, Pengcheng Wan, Xiaowei Hu, Yiduo Guo, Xixi Chen	/22
	Air Force Engineering University	
	Space targets recognition based on micro-doppler representation in frequency domain	
8617	Lixun Han, Guoqin Kang, Cunqian Feng, Xuguang Xu, Xiaojun Zou, Ming Tan	928
	National university of defense technology	
	A Sea Clutter Suppression Method based on Neighborhood Self-supervised for Ship	
8654	Detection in SAR Images	933
0034	Luwei Wang, Qian Guo, Hui Bi, Yong Li	755
	Nanjing University of Aeronautics and Astronautics	
	Ultra-Low Altitude Target Intelligent Recognition via Airborne Pulse-Doppler Radar	
8667	Zhaolong Wang, Weike Feng, Xiaokuan Zhang, Tao Pu, Xixi Chen, Binfeng Zong	939
	Air Force Engineering University	
	A Salient Feature-guided Network Using a Two-stage Transfer Learning Strategy for	
8675	Few-Shot Aircraft Detection in SAR Images	944
	Jiyun Chen, Qian Guo, Jingjing Zhang, Hui Bi	
	Nanjing University of Aeronautics and Astronautics	
	Auxiliary Classifier GAN-Based Super-resolution Microwave Coincidence Imaging	
8694	Shitao Zhu, Chunyu Hu, Die Li, Anxue Zhang	949
	School of Information and Communications Engineering, Xian Jiaotong University	
	Classification for Spatial Objects with Micro-motions Based on Dual CNN	
8741	Xuguang Xu, Lixun Han, Xiaojun Zou, Cunqian Feng	952
	College of Information and Communication, National University of Defense Technology	
	Clutter Suppression Based on ICUR-RPCA for Random Missing Data	
8778	Yifan Guo, XiXi Chen, Yingmin Wang	956
	Northwestern Polytechnical University	
	Space Target Feature Extraction based on Linear Frequency Modulation-Vortex	
8786	Electromagnetic Waves	960
	Yang Wang, Cunqian Feng, Dandan Zhang	
	Air Force Engineering University	
	Tensor model built from vector for Angle and Doppler frequency estimation with	
8787	Expanded Nested Spatial-Temporal Sampling	965
	chenghong Zhan, Xiaomin Pan, Guoping Hu, Yule Zhang, Shuhan Guo, Hao Zhou	
	Graduate College, Air Force Engineering University	

8799	Deep unfolding based microwave imaging with spin-decoupled programmable metasurface Fan Zhang, Weike Feng, Chaohui Wang, Tong Liu, Tao Pu, Huanhuan Gao, Zhengjie Wang, He-Xiu Xu Air Force Engineering University	970
Specia	al Session 13: Recent Progress of Artificial Intelligence in Cyberspace Security, Informand Communications Technology	nation
PID	Paper Information	Page
8415	Design and Optimization of Quad-Band Qing-Shaped Patch Antenna Using CMA-Surrogate Model Yingqi Pei, Kwok L. Chung, Caiying Li, Zhipan Wu, Guoming Lai Huizhou University	973
8432	Revolutionizing Fire Detection: Unleashing the Power of YOLOv8 Algorithm for Accurate Image Recognition Zhipan Wu, Yukai Lan, Kwok L. Chung Huizhou University	976
8444	Enhancing Precision Agriculture: YOLOv8 for Accurate Corn Disease and Pest Detection <i>Zhipan Wu, Yunhe Jiang, Xinyi Li, Kwok L. Chung</i> Huizhou University	980
8689	YOLO-LRHG: Long Range Hand Gesture detection using YOLO with attention mechanism Yu-Yu Yang, Hsu-Han Yang, Jung-Kuei Yang Dong Hwa University	985
8690	Comparative Analysis of Object Detection Algorithms for Wood Defect Detection Yaxuan Fang, Wanjie Huang, Chunwei Zheng, Xi Huang, Ming-Tzau Lin, Jung-Kuei Yang Dongguan University Of Technology	991
8716	Multi-Scale SE-SK Network for Human Falling Detection using IR-UWB Radars <i>Qinhuan Yang, Xiaoye Wang, Xinyue Kang, Yulan Zhang, Jianchao Zheng</i> Huizhou University	997
8726	Design and Implementation of An Intelligent Automated System for Industrial Lamp Cup Inspection and Grading based on Machine Vision Jiaji Zhang, Dongxiong Li, Chengjie Wei, Xiaoye Wang, Gang Peng Huizhou University	1003
8820	Analog Circuit Fault Diagnosis Based on Residual Network and Deep Channel Attention Lijian Zhou, Qingyu Meng, Yiping Sun, Yilin Lu, Yuanfeng Zhang Qingdao University of Technology	1009
8824	Formation fracture pressure prediction with very small actual samples based on BP neural network Lijian Zhou, Yifan Kong, Mengyuan Wang, Wenchao Zhang, Kun Zhao Qingdao University of Technology	1014
8833	Influence of AI on Network Security and Its Future Development Xianni ZHANG, Cong CHENG, Mengze JIA, Yuqi LIU, Ziao GAO Beijing Polytechnic College	1020

8834	AI-Powered Cybersecurity: Enhancing Threat Detection and Defense in the Digital Age Xianni ZHANG, Pengfei WANG, Haonan JIA, Huang ZHEN, Runfeng ZHAO Beijing Polytechnic College	1026
	Special Session 14: Emerging Sensing and Precision Measurement Technology	
PID	Paper Information	Page
8250	A measuring circuit for small values of capacitance based on capacitance-to-phase conversion Yuwei Xue, Shuxi Xu, Yuan Liu, Dandan Sui, Jie Wu 214 Institute of China North Industries, Suzhou, China	1032
8366	Research and Implementation of Parallel Data Acquisition System for Inertial Sensor Array Haomiao Jiang, Du Chen, Haile Bai, Gang Li, Xiaoliang Luo, Zhe Ji, Guangjun Wen, Yongjun Huang University of Electronic Science and Technology of China	1039
8554	Design and Realization of a High-Precision Cavity Optomechanical Accelerometer Chengwei Xian, Pengju Kuang, Zhe Li, Xinwei Li, Xiaoliang Luo, Zhe Ji, Guangjun Wen, Yongjun Huang University of Electronic Science and Technology of China, Chengdu Technological University	1043
8588	Attitude Measurement Based on Differential Array of MEMS Inertial Sensors Haile Bai, Du Chen, Haomiao Jiang, Gang Li, Xiaoliang Luo, Zhe Ji, Guangjun Wen, Yongjun Huang School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China	1047
8606	The optimal design of cavity optomechanical micro-hemispherical gyroscope Maoyuan Wang, Senyu Zhang, Jun Liu, Zhe Li, Haoxuan Jiang, Xiaoliang Luo, Zhe Ji, Guangjun Wen, Yongjun Huang School of Information and Communication Engineering University of Electronic Science and Technology of China Chengdu, China	1052
	Special Session 15: Advanced Filtering Components	
PID	Paper Information	Page
8377	A Flexible Graphene-Based Antenna for RF Vortex Generation Shoudong Gu, Zuxian He, Xiaolong Wang, Volodymyr I. Fesenko, Vladimir R. Tuz State Key Laboratory on Integrated Optoelectronics College of Electronic Science and Engineering International Center of Future Science, Jilin University	1056
8402	Compact Lowpass Filter Based on Asymmetric Spoof Surface Plasmon Polaritons Shengli Long, Baoping Ren, Chenguang Zhao, Wenjian Chen, Xuehui Guan East China Jiaotong University	1060
8493	A Novel Power Divider With Tunable Power Ratios and Reconfigurable Output Phase Differences Jialin Huang, Xulong Guo, Shanshan Xue, Chang Xu, Yong Mao Huang, Xiaolong Wang Jilin University	1064

8641	Analysis on the Frequency Characteristics of Coupling Windows in Tunable Cavity Filters Wenjing Liu, Yafeng Xia, Xinshe Yin China Academy of Space Technology	1068
8793	Wide-Stopband HMSIW Filter Using Interdigital-Slot-Loaded Complementary Split-Ring Resonator and Ring-Mushroom-Shaped Slow-Wave Unit Cells <i>Yujian Huang, Yong Mao Huang, Xiao long Wang</i> Xihua University	1073
Spec	ial Session 16: Key Enablers for Smart Wireless Environments in the Era of 5G and Bo	eyond
PID	Paper Information	Page
8383	An Experimental Analysis of Channel Similarity in the UMa Scenario for 6G FR3 Communications Ke Chen, Pan Tang, Tao Jiang, Huixin Xu, Gaofeng Nie, Lei Tian, Jianhua Zhang Beijing University of Posts and Telecommunications	1075
8473	Analysis of Low-Altitude UAV-to-Ground Channel Characteristics in Rural Environment Yuanfeng He, Yufan Wang, Haochuan Yue, Jiahui Chai, Yuzhe Sun, Yue Lyu, Qinghui Wu, Wei Wang Chang'an University	1081
8505	An Ultra-Wideband Cascaded Power Amplifier for Military Individual Radio Fei Gao, Jingchang Nan, Hongji Fan, Cong Wang, Panpan Tang, Zhaoqi Li Liaoning Technical University	1086
8744	Ray-Tracing based CDL Modeling for C-V2X Scenarios with Multiple Roadside Vehicles <i>Yiran Wang, Danping He, Hao Duo, Hao An, Ke Guan, Dao Tian, Andrej Hrovat</i> Beijing Jiaotong University	1091
Sı	pecial Session 17: 6G multi-beam reconfigurable/scanning antenna and city developme	ent
PID	Paper Information	Page
8420	Device-free Human Activity Recognition Based on CSI Characteristic Wei Yang, Xiaojun Jing, Hai Huang, Jinru Liu, Lei Ning, Botao Feng Shenzhen Technology University	1097
8756	A Leaky-Wave Beam Scanning Antenna with PIN Diodes Gengbo Xiao, Botao Feng, Xiao Ding, Li Deng, Kwok L. Chung, Wenzhe Gu Shenzhen University	1103
8757	Design of a Forked Eander Slot Antenna Suitable for LTE 5G Frequency Band Gengbo Xiao, Botao Feng, Xiao Ding, Li Deng, Wenzhe Gu, Qingsheng Zeng Shenzhen University	1107
8758	A Reconfigurable Reflectarray Antenna at X-band Lin Du, Botao Feng, Xiao Ding, Li Deng, Wenzhe Gu, Qingsheng Zeng Shenzhen University	1111
8759	A Design of High-Gain, Polarimetric Conversion Reflection Filter Array Liwei Rao, Botao Feng, Xiao Ding, Wenzhe Gu, Li Deng, Qingsheng Zeng Shenzhen University	1115

8760	Application of Evolutionary Computing for Optimal Design of Base Station Antenna Naveed Hamid Nawaz Khan, Botao Feng, Xiao Ding, Li Deng, Wenzhe Gu, Kwok L. Chung Shenzhen University	1118
8761	Dual-Band Printed Antenna Design for Bluetooth and WLAN Applications Naveed Hamid Nawaz Khan, Botao Feng, Xiao Ding, Wenzhe Gu, Li Deng, Kwok L. Chung Shenzhen University	1122
8762	A Broadband Array Antenna Based on E-Shaped Folded Strip Elements for Millimeter-Wave N259/N260 Applications Xi Wu, Botao Feng, Xiao Ding, Wenzhe Gu, Li Deng, Qingsheng Zeng Shenzhen University	1126
8763	A Broadband High Gain Base Station Antenna Xiao Ding, Botao Feng, Liwei Rao, Wenzhe Gu, Li Deng, Qingsheng Zeng Macau University of Science and Technology	1130
8765	A Polarization Reconfigurable Magneto-Electric Dipole Antenna for 2.2-2.7 GHz Band Xuhang Zhou, Botao Feng, Xiao Ding, Li Deng, Wenzhe Gu, Qingsheng Zeng Shenzhen University	1133
8766	A Dual Broadband Antenna for V2X, LTE, and 5G Vehicular Communication Systems <i>Yiting Hu, Botao Feng, Kwok L. Chung, Xiao Ding, Wenzhe Gu, Li Deng</i> Shenzhen University	1138
Spe	ecial Session 18: Efficient transmission and networking technology of satellite Internet unmanned systems	et for
PID	Paper Information	
	1 of or investment	Page
8447	Research on Satellite Beam Tracking Method Based on Carrier Detection and BP Neural Network Correction Chongsen Chen, Xin Yang, Jianying Li, Xin Sui Northwestern Polytechnical University	Page 1141
8447 8595	Research on Satellite Beam Tracking Method Based on Carrier Detection and BP Neural Network Correction Chongsen Chen, Xin Yang, Jianying Li, Xin Sui	
	Research on Satellite Beam Tracking Method Based on Carrier Detection and BP Neural Network Correction Chongsen Chen, Xin Yang, Jianying Li, Xin Sui Northwestern Polytechnical University Research on anti-jamming Antenna Based on Tiantong satellite Zhong Ying Liang, ZhaoLin Zhang, Ling Wang	1141
8595	Research on Satellite Beam Tracking Method Based on Carrier Detection and BP Neural Network Correction Chongsen Chen, Xin Yang, Jianying Li, Xin Sui Northwestern Polytechnical University Research on anti-jamming Antenna Based on Tiantong satellite Zhong Ying Liang, ZhaoLin Zhang, Ling Wang Northwestern Polytechnical University Ground-based Radio Navigation Base Station Deployment Method based on Improved Multi-Objective Particle Swarm Optimization Jiawei Liu, Chengyan He, Zhaolin Zhang, Chuang Han, Ling Wang, Mingliang Tao	1141
8595 8688 8804	Research on Satellite Beam Tracking Method Based on Carrier Detection and BP Neural Network Correction Chongsen Chen, Xin Yang, Jianying Li, Xin Sui Northwestern Polytechnical University Research on anti-jamming Antenna Based on Tiantong satellite Zhong Ying Liang, ZhaoLin Zhang, Ling Wang Northwestern Polytechnical University Ground-based Radio Navigation Base Station Deployment Method based on Improved Multi-Objective Particle Swarm Optimization Jiawei Liu, Chengyan He, Zhaolin Zhang, Chuang Han, Ling Wang, Mingliang Tao Northwestern Polytechnical University A time allocation-based user position monitoring for satellite networks Ting Liu, Qian Xu, Xin Yang, Yanyun Gong, Jian Xie	1141 1148 1153

Yuqiong Zhang, Hui Wang, He-Xiu Xu Air force Engineering University Special Session 20: Optimal design of Intelligent metasurface-assisted systems PID Paper Information Pa Compact UWB Antenna Array covering the X-band for the Radar Application Dinglun He, Li Deng, Lijie Chen College of Information and Communication Engineering Beijing University of Posts and Telecommunications Dual-frequency Focusing Metasurface Based on Time Reversal in Complex Scattering Environment Xingyu Liu, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications Wideband reconfigurable bow-tie metasurface design for focusing Kaiyue Yin, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications Fast Microwave Near-Field Phase Retrieval Based on Improved Diffraction Neural	
PID Paper Information Compact UWB Antenna Array covering the X-band for the Radar Application Dinglun He, Li Deng, Lijie Chen College of Information and Communication Engineering Beijing University of Posts and Telecommunications Dual-frequency Focusing Metasurface Based on Time Reversal in Complex Scattering Environment Xingyu Liu, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications Wideband reconfigurable bow-tie metasurface design for focusing Kaiyue Yin, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications	
Compact UWB Antenna Array covering the X-band for the Radar Application Dinglun He, Li Deng, Lijie Chen College of Information and Communication Engineering Beijing University of Posts and Telecommunications Dual-frequency Focusing Metasurface Based on Time Reversal in Complex Scattering Environment Xingyu Liu, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications Wideband reconfigurable bow-tie metasurface design for focusing Kaiyue Yin, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications	
8727 Dinglun He, Li Deng, Lijie Chen College of Information and Communication Engineering Beijing University of Posts and Telecommunications Dual-frequency Focusing Metasurface Based on Time Reversal in Complex Scattering Environment Xingyu Liu, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications Wideband reconfigurable bow-tie metasurface design for focusing Kaiyue Yin, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications 11'	72
8733 Environment Xingyu Liu, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications Wideband reconfigurable bow-tie metasurface design for focusing Kaiyue Yin, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications	
8746 Kaiyue Yin, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications	75
Fast Microwave Near-Field Phase Retrieval Based on Improved Diffraction Neural	78
Networks Ying Li, Li Deng, Lijie Chen Beijing University of Posts and Telecommunications	80
Session 21: The applications of digital technologies in economic society	
PID Paper Information Pa	ge
Research of Sampling Method For Cybercrime Black Industry Chain Yingan Cui, Xue Li, YanDe WU XIAN UNIVERSITY OF TECHNOLOGY	83
A Conceptual Framework for Digital Transformation in the Era of Digital Economy: A New Perspective Lin Li, Na Li, Qin Kong Henan Investment Group	88
Literature Review on Age-Friendly Design of Urban Rail Transit wayfinding Signage in the Context of Digital Economy Qin Kong, Na Li, Panke Li Zhengzhou Railway Vocational and Technical College	

8735	The Analysis of Structures of a kind of Equilibrium Networks in a Cournot Oligopoly Chen Wu, Fan Zhang Xi an University of Finance and Economics	1197
8764	Research on the Influencing Factors of the Spread of Posts in the Field of Climate Change - Take Sina Weibo as an Example Xue Li, Yizhuo Li, Yande Wu, Chen Wu, Juan Shi, Ying'an Cui Shaanxi Normal University	1200
8772	Evolutionary Game Analysis of the Impact of Digital Merger and Acquisition on the Choice of Radical Innovation Mode Chen Wu, Xue Li School of Economics, Xi an University of Finance and Economics	1206
	Special Session 22: metasurface antenna and its application	
PID	Paper Information	Page
8449	A Circularly-polarized Metasurface antenna Array in Random Arrangement Yi Zhao officers college of PAP	1210
8518	Multi-band Independently Tunable Terahertz Perfect Absorber Based on Graphene Metamaterials Penghui Li, Baohe Zhang, Zihao Zhou Shanxi Electronic Science and Technology Institute	1212
8548	A Low-power 1-Bit Wideband Reflection-Type Phase Shifter for Reconfigurable Metasurface Xinyu Cai, Mengyao Zhao, Zhangjie Luo Southeast University	1215
8618	Low-scattering Two-dimensional antenna array based on Zero-backtracking Method Yukang Lu, Jiaming Sun, Jiandong Zhao, Xiaochuan Gao, Zhuohuang Cao, Yuejun Zheng College of Electronic Science and Technology, National University of Defense Technology Changsha China	1217
8672	A Dual-Band Dual-Circularly Polarized Folded Transmitarray Using Dual Metasurfaces Hui Wang, Yuqiong Zhang, Yanzhao Wang, Zhengjie Wang, Tong Liu, Fan Zhang, Chaohui Wang, Chao Tian, He-Xiu Xu Air force Engineering University	1221
8711	A Low-Profile Wideband Circularly Polarized Metasurface-based Filtering Antenna Xia Zhang, Guangshang Cheng, Lixia Yang, Yingsong Li, Zhixiang Huang Anhui University	1224
8717	A Dual-polarization Amplitude and Phase Modulated Active Metasurface Ziming Wei, Xiongbin Wu, Daolin Fu, Wei Xiong, Hong Bie, Yong Mao, Yongjin Zhou Shanghai University	1226
8784	An Ultralow-Profile Folded Transmitarray Antenna with Low RCS Based on Metasurface and Rasorber Zhengjie Wang, Yanzhao Wang, Chao Tian, Jiangang Liang, Weike Feng, Chaohui Wang, Tong Liu, Fan Zhang, He-Xiu Xu Air force Engineering University	1229

Special Session 23: Discussion of advanced numerical techniques and its applications on microwave circuits, radiation components, optical devices and other integrated design		
PID	Paper Information	Page
	A Structured Meshing Approach for FDTD Method	
8350	Bo Zhong, Jian Feng, Ming Fang, Zhixiang Huang	1232
	Anhui University	
	Two Wheeled Self Balancing Vehicle Based on Wireless Remote Control	
8398	Shuhua Li, Xindong Huang, Shaokang Zhou, Dun Mao, Hongkai Nian	1236
0370	School of Opto-electronic and Communication Engineering, Xiamen University of	1230
	Technology, Xiamen 361024, China	
	A Contactless Temperature Measurement and Identity Recognition Device	
8401	Dun Mao, Xindong Huang, Shuhua Li, Shaokang Zhou, Hongkai Nian	1240
	School of Opto-electronic and Communication Engineering, Xiamen University of	
	Technology, Xiamen 361024, China	
	Intelligent Takeaway Delivery Vehicle Based on Microcontroller	
8407	Shaokang Zhou, Xindong Huang, Shuhua Li, Dun Mao, Hongkai Nian School of Opto-electronic and Communication Engineering, Xiamen University of	1244
	Technology, Xiamen 361024, China	
	Research on the Motion Control Algorithms for Unmanned Ships	
8424	Feng Lin, Dekang Lin, Shijie Huang	1248
0424	Xiamen university of technology	
	Research on Improved Safety Helmet Detection Method Based on YOLOv5s	
0.454	Zhenlin Huang, Yijun Cai, Feng Lin	10.51
8471	Smart Sensing Integrated Circuit Engineering Research Center of Universities in Fujian	1251
	Province, Xiamen University of Technology	
	Vehicle Recognition Algorithm Based on Improved YOLOv5	
8472	Qijie Chen, Yijun Cai, Feng Lin	1255
0472	Smart Sensing Integrated Circuit Engineering Research Center of Universities in Fujian	1233
	Province, Xiamen University of Technology	
	Parallelization Design and Evaluation of MT19937 Based on FPGA	
8481	Genshen Lin, Weichao Xu, Yun Lin	1258
	School of Opto-Electronic and Communication Engineering, Xiamen University of	
	Technology Parallelization design of WELL19937 based on FPGA	
	Weichao Xu, Genshen Lin, Yun Lin	
8483	School of Opto-Electronic and Communication Engineering, Xiamen University of	1262
	Technology	
	A 205 GHz Fully integrated Power Amplifier in 40-nm CMOS at Near- f_{max} Frequencies	
8509	Yiheng Song, Fuchang Chen, Ruibing Dong, Yi Wang	1266
	South China University of Technology	
	High-Gain Difference Beam Planar Antenna Array for Millimeter-Wave Applications	
8511	Zhiwei Chen, Quan Sun, Daiweixuan Yang, Tongyu Ding, Ying Huang	N/A
	Jimei University	

	Modeling of Resonant Radiation in Rod-like Structures	
8519	Nengcheng Deng, Yunhua Zhang, Siyuan He, Rumeng Chen, Wei Gong	1272
	Wuhan University	
8521	FEM Simulation of Hybrid-2DLMs-based Plasma Array Structure Used in Confrontation	
	with High-Power Microwave	1275
	Chunzhi Dong, Naixing Feng, Xuesong Deng, Lixia Yang, Zhixiang Huang	
	Anhui University	
0.504	A TSEM Method for Analysing of Elastic Waves	1050
8524	Shuai Zhang, QI Qiang Liu, Lixia Yang, Zhixiang Huang, Naixing Feng	1278
	School of Electronic and Information Engineering Anhui University	
	A Collaborative Optimization Methodology for 2.5-D Advanced Package Considering	
8549	Thermal and Power Integrity Page 7h and Do Wei Wang Oisiang Liv Wen Shang 7h and	1281
	Peng Zhang, Da-Wei Wang, Qiqiang Liu, Wen-Sheng Zhao Hangzhou Dianzi University	
	Large-Scale Parallel Non-Conformal Complete Domain Decomposition for	
	FE-BI-MLFMA	
8556	Jia-Tong Jing, Ming-Lin Yang, Wei-Jia He, Xin-Qing Sheng	1285
	Beijing Institute of Technology	
	Aircraft Part Recognition from Drones' Perspective Based on Semantic Segmentation	
0.7.70	Boqing Xiang, Haiqing Chang, Yiting Ye	1000
8559	School of OPTP-Electronic and Communication Engineering, Xiamen University of	1288
	Technology, Xiamen 361024, China	
	Inverse Design Based on Time Reversal Differentiation of FDTD	
8563	Yihao Li, Heng Zhong, Ke Xu, Ming Fang	1293
	An hui University	
	Efficient Solution of Propagation coefficient in Biaxial Anisotropic Media Employing	
8565	Simplified Transfer Matrix Method	1295
	Jiuyang Fan, Yuxian Zhang, Xiaoli Feng, Lixia Yang, Zhixiang Huang	
	Anhui?University	
	Research on Gas Pipeline Fire Detection Algorithm Based on Improved YOLOv8	
8639	Yiting Ye, Haiqing Chang, Boqing Xiang School of OPTP-Electronic and Communication Engineering, Xiamen University of	1298
	Technology, Xiamen 361024, China	
	A Cylindrical Dielectric Resonator Antenna With Differential Beam	
8691	Yang Lanlan, Li Daotong, Sui Dongyi, Liu Xinyao, Liu Ying, Jiang Qi	1302
0071	Chongqing University	1502
	A Fast Algorithm Based on PMCHW for Solving Composite Metallic and Dielectric	
	Objects	
8698	Chenhao Fan, Peng Zhao, Kanglong Zhang	1305
	Hangzhou Dianzi University	
	A GeTe Phase-change RF Switch Design Based on Microstrip Line Structure	
8713	chen chen, yuejun zheng, chenyang shuai, zheyuan yao, hai zhu	1308
	National University of Defense Technology	
	A Compact Wideband SIW Horn Antenna for Applications in X and Ku Bands	
8729	Shirui Chen, Yilin Si, Huiqing Zhai, Cheng Zhu, Nan Wang	1312
	School of Electronic Engineering, Xidian University	

Implicit Differencing Xi Shen, Haoran Qin, Tiancheng Zhang, Huaguang Bao, Department of Integrated Circuit Engineering Nanjing U Technology		
B825 Design of An Ultra-Wideband Antenna Considered Mult Function Zhao Linfei, Zheng Hongxing Hebei University of Technology	ple Input Multiple Output 1319	
Special Session 24: Reconfigurable and multifunctional met	asurfaces and their antenna applications	
PID Paper Information	Page	
Transmissive Reconfigurable Metasurface for Near-field Jingchen Yang, Yueyi Yuan, Yuxiang Wang, Kuang Zhang Harbin Institute of Technology		
 Design of Reconfigurable Frequency Selective Rasorber Peng Geng, Yongtao Jia, Ying Liu National Key Laboratory of Radar Detection and Sensing 	1324	
Reconfigurable Absorptive-Polarization-Converting Met Control Jiahao Wang, Ke Chen, Shaojie Wang, Junming Zhao, Yi Nanjing University	1328	
8723 A Polarization-Multiplexing Metasurface Logic Operator Qiuyu Zheng, Kai Qu, Ke Chen, Junming Zhao, Tian Jian Nanjing University		
Special Session 25: Microwave-induced Plasma and its Application		
PID Paper Information	Page	
Based on Gradien Fengming Yang, Huacheng Zhu, Yang Yang Chengdu University of Technology	t Index Metamaterials N/A	
Design and Investigation of a Large Area Microwave Pla 8527 Qiulin Wang, Huacheng Zhu Sichuan University	sma Device N/A	
Special Session 26: Green Commun	nication for 6G	
PID Paper Information	Page	
Two-Stage High Precision Positioning for mm-Wave OF 3479 Junxia Li, Xin Wang, Zhengyu Zhu, Wanming Hao, Yong, Henan Polytechnic University	_	
Special Session 27: Planar compact antenna	and high-density array	
PID Paper Information	Page	

8562	Design Approach of The Wideband Power Divider Ruixi Yang, Shixi Huang, Mingrui Li, Nengwu Liu Xidian University	1344
8614	An Evanescent Wave Narrow-Band Diplex Filtenna Based on All-Metal Design Wei Zhou, Da Yi, Ming-Chun Tang Chongqing university	1347
Speci	ial Session 28: Microwave and Terahertz Metasurface-based devices: Recent Advance Applications	s and
PID	Paper Information	Page
8425	A Transmit-Reflect Array Antenna Based on Spin-decoupled Metasurface Generating Multibeam Carrying Orbital Angular Momentum Mode Leng HAN, YongZhong ZHU, Xiao Yu LIU, Bao XIONG, LingLing ZHANG, ZhiWei WANG Engineering University of PAP	1350
8462	Design of a Ku-band ESS with High Shielding Effectiveness Dong Wang, YongZhi Cheng wuhan university of science and technology	1354
8536	A Hybrid Digital Coding Metasurface Based on VO ₂ for Independent Control of Spatial and Surface Waves Ziyi Zhu, Yujie Liu, Xiaojian Fu Southeast University	1357
8620	Metasurface-based Polarization Converter Using Smith Chart Analysis Yihang Zhang, Yangsen Hu, Zhao Liu, Wanwan Jin, Xiao Ji, Song Wu Hubei University of Technology	1361
8630	Dual Bandpass Tunable Frequency Selective Surface Design Jing Xia, Chang Zhou, Wanwan Jin Wuhan Second Ship Design And Research Institute	1366
8634	Deep Learning-based Algorithm for Multi-objective Driver Chip Cell Layout Optimization Yongbo Jin, Xiaoling Yang, Yao Lu Hubei University of Technology	1369
8635	Bilinear Interpolation Algorithm Based on Verilog Yao Lu, Xiaoling Yang, Yongbo Jin Hubei University of Technology	1375
8657	A Graphical aid of the Smith Chart to Anglyze the Linear to Circular Polarization Converter Based on Metasurfaces Geng Wang, Yihang Zhang, Yangsen Hu, Jing Xia, Xiao Ji, Song Wu Hubei University of Technology	1380
8702	Graphene-Based Metasurface for Full-space Terahertz Wave Manipulation Liu Cao, Yujie Liu, Xiaojian Fu Southeast University	1385
8715	Design of Electromagnetic Transmission/Absorption Structures Based on Machine Learning Fan He, Zhiming Zhang, Zheng Ye, Yun He National Key Laboratory of Electromagnetic Effect and Security on Marine Equipment	1389

8803	A Low-loss X-band Frequency-Selective Rasorber Fan He, Wenyu Hao, Xiao Ji National Key Laboratory of Electromagnetic Effect and Security on Marine Equipment	1392	
	Special Session 29: Multiphysics Simulation Method and Its Applications		
PID	Paper Information	Page	
8468	Absorbing Boundary Condition for the Hexagonal-Mesh-Based FDTD Donghua Zhou, Bo Zhong, Jian Feng, Ming Fang Anhui University	1395	
8547	Study on A Packed Bed Dielectric Barrier Discharge Plasma Reactor ChangJiang Liao, Yuan Yang, Lin Wang China West Normal University	1397	
8573	Simulation of Microfluidic Microwave Sensor Based on Taiji Resonator Yun Ma, Chenxi Zhao, Deshen Hou, Chaojun Chen, Quanlin Guo, Dezhi Gou China West Normal University	1401	
8608	A Compact Improved Performance Circularly Polarized Rectenna With Harmonic Suppression Chen Chen, Rasool Nouman, Jinwei Gao, Lin Wang, Yuan Yang China West Normal University	1404	
8676	Signal Integrity Analysis of Microwave Circuits Based on FETD Method Heng Fei Ma, Zheng Liang Lv, Qing Nan Fan, Hang Liu, Zheng Lang Jia, Huan Huan Zhang Xidian University	1407	
8718	A Fast Analysis Method for Electromagnetic Scattering in Broad Frequency Band and Angular Domains of Periodic Arrays Wei Zhou, Guangshang Cheng, Lixia Yang, Zhixiang Huang Anhui University	1409	
8817	Low Numerical Dispersion LOD-FDTD Algorithm JiRui Zhang, JinLong Hu, KaiKun Niu, YingSong Li, ZhiXiang Huang, XianLiang Wu Anhui University	1412	
Special Session 30: Emerging radiation and scattering manipulation technologies for antennas and arrays			
PID	Paper Information	Page	
8491	An Effective Control Strategy for Propagation Constants of Stub-Loaded Endfire Leaky-Wave Antenna Junbing Duan, Lei Zhu, Cheng Liao Southwest Jiaotong University	1415	
8503	Wide-Angle Scanning and Backward Scattering-Reduced Phased Array Composed of Dual Anti-Reflection-Phase Elements Jia-Li Zhong, You-Feng Cheng, Ting Shi, Xin-Long Bian, Cheng Liao Southwest Jiaotong University	1418	

8553	A Transparent Metadevice for Radar-Infrared Compatible Stealth using Dual-Sized Thin ITO meta-films Yanzhao Wang, Huiling Luo, Huanhuan Gao, Kai-yue Liu, He-Xiu Xu Air force Engineering University	1421	
8625	A Broadband 1-Bit Reconfigurable Huygens Element for Transmitarray in mmW Applications Min Wang, Haibin Xu, Yi Ren, Shi Ting Chongqing University of Posts and Telecommunications	1424	
8671	Design of A High Gain, Compact Patch Antenna with a Tilted Radiation Pattern Chen Xiaoming, Wu Zhentian, Fang Xin Anhui University	1427	
8685	Modified Pattern Multiplication Approach for Phased Arrays Ting Zang, Gaobiao Xiao Shanghai Jiao Tong University	1430	
Special Session 31: Frontiers in the areas of 6G and next-generation communication technology			
PID	Paper Information	Page	
8788	Improving Antenna Isolation for Bistatic In-band Full-duplex Base Station Application with Graphene and DGS Xiaosheng Zhang, Yuke Guo, Luyu Zhao Xidian University	1433	
Special Session 32: Spatiotemporal modulated Electromagnetic devices and applications			
PID	Paper Information	Page	
8529	A Decoupling Method Based on Time-modulated Array with Harmonic Characteristic Analysis Yu Xia, Anjie Cao, Xiaonan Zhao, Tong Wu, Ronghong Jin, Jingfeng Chen Shanghai Jiao Tong University	1436	
8615	Ultra-Wideband Transmissive Programmable Metasurface for Dynamic Electromagnetic Modulation Longpan Wang, Yuhua Chen, Xudong Bai, Mengmeng Sun, Zhenyuan Li, Zhuoran Zhang Northwestern Polytechnical University	1440	
8695	Intra Beam Harmonic Suppression of 1-bit Space-time-coding Metasurfaces for Wideband Communication TONG WU, Qingqing Wu, Zhenji Liu, Yu Xia, Ronghong Jin, Jingfeng Chen Shanghai JiaoTong University	1442	
Speci	Special Session 33: Recent Advancements in Artistic Antennas and Metasurface-Based Antennas		
PID	Paper Information	Page	
8396	A Dual-Band LiShu Guo-Shaped Patch Antenna for 5G/B5G Wireless Communications Caiying Li, Kwok L. Chung, Guoming Lai, Shiquan Wang Huizhou University	1445	

8451	Controllable Slotted SIW for Fixed-Frequency Planar Beam-Scanning Antenna Shiquan Wang, Kwok L. Chung, Xiaotian Liu, Zhipan Wu, Caiying Li, Yingqi Pei Nanyang Technological University, Singapore	1449
8856	A Novel DM-RPA-Based Strain Sensor for High-Sensitivity 2-Dimensionsal Strain Monitoring Lingling WANG, Kwok L. CHUNG, Ping SUN, Lunlong Ji Weifang University	1452
	Special Session 34: RF and microwave metamaterials for wireless communications	
PID	Paper Information	Page
8538	A Broadband Low-RCS Co-polarized Antenna Array Based on Metasurface Ying Tian, Wang Yao, Huang Xiaojun Xi'an University of Science and Technology	1455
8580	An active metasurface for beam manipulation Xue Qi, Huang Xiaojun Xian University of Science and Technology	1458
8581	The Influence of Antenna Frequency and Roadway Cross-sectional Area on Radio Wave Propagation in Mine Roadway Wang Yiwen, Huang Xiaojun Xian University of Science and Technology	1461
8587	A Highly Selective Frequency Selective Rasorber With Helical Structure Mao Minghao, Huang Xiaojun Xian University of Science and Technology	1464
8591	Ultra-Wideband Absorber Combining Magnetic Material and Metasurface Gao Xinjie, Huang Xiaojun, Xu Hexiu Xian University of Science and Technology	1468
8616	Design and Analysis of Independently Modulatable Dual-Frequency Energy-Selective Surface Ji Yuhao, Huang Xiaojun College of Communication and Information Engineering Xi'an University of Science and Technology	1471
8710	Incident Power Density Evaluation Method Based on Metalens and R-U-Net Miao Cao, Zicheng Liu, Ruijie Xiao Northwestern Polytechnical University	1473
8854	W-band CMOS ×8 Frequency Multiplier With High Harmonic Rejection Yizhao Li, Jiang Luo, Yi Shen, Xiang Wang, Jun Liu, Hongchang Shen Hangzhou Dianzi University	1476
8857	A 2.5V 200mA CMOS Low-Dropout Voltage Regulator with Robust PVT Wangting Bao, Jiang Luo, Yongjian Jin, Yi Shen, Shuhuan Fu, Yuqian Pu, Hongchang Shen Hangzhou Dianzi University	1479
Special Session 35: Advances in mmWave Lens Antennas, Conformal Array for Modern Wirless Communications		
PID	Paper Information	Page

8575	A Shared-Aperture Dual-Band Array Antenna Using Gap Waveguide Technology Min Wang, Jingke Jiang, Xu Haibin, wei Luo Changing University of Party and Talanaparaginations	1483
8632	Chongqing University of Posts and Telecommunications A Novel Metasurface Antenna with Reconfigurable Radiation and Scattering Performance Huanhuan Yang, Tong Li, Jiawei Liao, Jing Zou, Tianhao Wu, Kefeng Ji, Sijia Li AFEU	1486
8687	A High Efficiency Bandwidth-Improved Transmitarray Antenna with Phase-Shifting Elements Xiaoxue Wang, Wei Luo, Meilin Liu Chongqing University of Posts and Telecommunications	1488
8693	A Circularly Polarized Filtering Dielectric Resonator Antenna based on SIW Cavity Xiaozhen Liu, Wei Luo, Meilin Liu, Teng Xiong Chongqing University of Posts and Telecommunications	1492
8602	A dual-polarized broadband Fabry-Perot antenna loaded with an energy-selective surface Yidan Liu, Yi Wang, Qi Wang, Songran Guo Nanjing University of Aeronautics and Astronautics	1496
8860	Discuss the digital twin technology of substation based on ARM system Hongwei AI, Zhongshi Du, Yanqun Huang, Xianglong Meng, Jianan Qu Harbin Engineering University	1499
8861	Sea Clutter Simulation Using Condition Wasserstein Divergence Generative Adversarial Network Juncheng Yi, Tao Jiang Harbin Engineering University	1502
8862	An adaptive filter algorithm using Ekblom for noise suppressing Weichao Yang, Ke Ren, Xinqi Huang Anhui University	1505
8865	Research on the Improved Grey Wolf Optimization Algorithm for 3D Fitting of Object Scattering Characteristics Chenyang Li, Tao Jiang Harbin Engineering University	1507
8870	New Electromagnetic Adjustable Angle Reflector Jiayi Li, Tao Jiang Harbin Engineering University	1510
8875	RCS Analysis of Offshore Wind Turbines Zimeng Ren, Qingpeng Chen, Tao Jiang Harbin Engineering University	1513
8880	Design of Microstrip Antennas Based on Characteristic Mode Analysis Using Free-form Deformation Chengkai He, Tao Jiang Harbin Engineering University	1516
8884	EMC Data Model Design driven by Graph Database Xiaopeng Su, Wangqiu Cai, Guangfeng Jiang, Kang Chen, Kai Li, Yue Lian Harbin Engineering University	1519