IEEE iWEM 2025 Hong Kong

IEEE iWEM 2025

2025 IEEE International Workshop on Electromagnetics: Applications and Student Innovation Competition

4 - 6 August 2025, Hong Kong SAR, PRC

—

PROGRAM BOOK

IEEE (HK) Section
AP/MTT

State Key Laboratory of
Terahertz and Millimeter Waves
香港城市大學
City University of Hong Kong

4 August 2025 (Monday)

08:30-16:30	Registration @ 3/F Li Dak Sum Yip Yio Chin Academic Building						
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building						
08:45-08:55	Opening Ceremony						
08:55-09:35	Plenary Session 1 (Christophe Fumeaux)						
09:35-10:15	Plenary Session 2 (Hisamatsu Nakano)						
10:15-10:55	Plenary Session 3 (Yubin Gong)						
10:55-11:10	Tea Break						
Venue	RM 3614	RM 2312	RM 2310	RM 2308	RM 2306	RM 2614	RM 2513
11:10-12:25	MS1 Underwater/ Underground Electromagnetic Fields Application	MS2 Advanced Antenna Technology for the Next Generation of Communications	MS3 Antennas for Next-Generation Wireless Communications	MS4 Innovative Millimeter-Wave and Terahertz Antennas for 5G/6G and Beyond	MR1 Electromagnetic Theory & Computational Electromagnetics	MR2 Antenna Theory, Design, and Applications 1	MIF1 Interactive Forum 1
12:25-13:50	Lunch @ City Chinese Restaurant & Faculty Lounge						
Venue	RM 3614	RM 2312	RM 2310	RM 2308	RM 2306	RM 2614	RM 2513
13:50-15:05	MS1 Underwater/ Underground Electromagnetic Fields Application	MS5 Advanced Technologies for Wireless Power Transmission and Energy Harvesting	MS6 AI in Antennas and Emerging Wireless Applications	MS7 Emerging Research Advances in Electromagnetics Led by Young Professionals in South Korea	MS8 Recent Advances in Metasurfaces for Complex Wave Propagation, Radiation, and Conversion	MR3 Antenna Theory, Design, and Applications 2	MIF2 Interactive Forum 2
15:05-15:20	Tea Break						
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building						
15:20-17:20	Innovation Series of Distinguished Scientists						
18:00-20:00	Welcoming reception @ Amaroni's New York Italian						

Program-at-a Glance

5 August 2025 (Tuesday)

08:15-16:00	Registration @ 3/F Li Dak Sum Yip Yio Chin Academic Building						
Venue	RM 3614	RM 2312	RM 2310	RM 2308	RM 2306	RM 2513	
08:30-09:45	TS1 Artistic Innovations in Multifunctional Antennas: Reconfigurable Designs and Metasurfaces for Next-Generation Communication and Sensing	TS2 Decoupling Technology in the New Generation Wireless Communication System	TS3 Novel GaN Power Amplifier Techniques for Various Applications	TS4 Recent Developments of Array Antennas: Time Modulation, Spatial Beam Scanning and New Applications	TR1 Metamaterials/ Metasurfaces	TIF1 Interactive Forum 3	
09:45-10:00	Tea Break						
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building						
10:00-10:40	Plenary Session 4 (Richard W. Ziolkowski)						
10:40-11:20	Plenary Session 5 (Kin-Lu Wong)						
11:20-12:00	Plenary Session 6 (Arokiaswami Alphones)						
12:00-13:20	Lunch @ City Chinese Restaurant & Faculty Lounge						
Venue	RM 3614	RM 2312	RM 2310	RM 2308	RM 2306	RM 2614	RM 2513
13:20-14:20	TS5 Advanced Antenna and RF Component Designs for Millimeter-Wave and Terahertz Applications	TS6 Advances in Wideband and Beam-scanning Antenna Arrays for Radar and Wireless Communication Systems	TS7 Advances of Artificial Intelligence in Microwave Device Optimization	TS8 High-Gain Millimeter-Wave Reconfigurable Antennas	TS9 Innovative Technologies in Transmitarray/Lens Antennas and RISs for 6G Systems	TS10 Rohde and Schwarz Session	TIF2 Interactive Forum 4
14:20-14:35	Tea Break						
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building						
14:35-16:35	Innovation Series of Distinguished Young Scholars						
18:30-21:00	Banquet @ Hong Kong Gold Coast Hotel						

6 August 2025 (Wednesday)

08:30-11:00	Registration @ 3/F Li Dak Sum Yip Yio Chin Academic Building					
Venue	RM 3614	RM 2312	RM 2310	RM 2308	RM 2306	
09:00-10:15	WS1 Emerging Trends in Metamaterials and Antenna Engineering	WS2 High Power Terahertz Structures and Devices	WS3 Innovative Multifunctional Filtering Devices: from Microwave to THz	WS4 Microwave and Millimeter-wave Integrated Circuits and Antennas for Sensing and Communication	WR1 RF, Microwave, Millimeter-Wave, Terahertz Components and Circuits	
10:15-10:30	Tea Break					
Venue	RM 3614	RM 2312	RM 2310	RM 2308	RM 2306	
10:30-11:45	WS5 Advances in Microwave Circuits, Devices, and Systems for Next-Generation Wireless Communication and Sensing Applications	WS6 Low-Cost Millimeter-Wave/ THz Antennas and Arrays	WS7 Innovative Lens Antennas for 5G and B5G Communications	WS8 Innovative RF System and Antenna Designs for B5G/6G Communications	WS9 Technological Developments and Challenges in Wideband and Integrated Millimeter-Wave and Terahertz Antennas	

R&S ANTENNA TEST SYSTEM

R&S mmWave OTA Chamber

Rohde & Schwarz Hong Kong Limited
Tel.: +852 2264 3788
Fax: +852 2264 3699
Email: info.rshk@rohde-schwarz.com
www.rohde-schwarz.com.hk

ROHDE&SCHWARZ
Make ideas real

R&S®FE170SR Frontend

SUB-TERRAHERTZ, ABOVE EXPECTATIONS

Rohde & Schwarz Hong Kong Limited
Tel.: +852 2264 3788
Fax: +852 2264 3699
Email: info.rshk@rohde-schwarz.com
www.rohde-schwarz.com.hk

ROHDE&SCHWARZ
Make ideas real

UNMATCHED DYNAMIC RANGE. UNMATCHED PERFORMANCE.

VDI's Mini VNAX modules are one-quarter the volume of standard modules, making them well suited for probe station and antenna measurement applications.

VDI's VNA Extenders provide high performance frequency extension of vector network analyzers from 26GHz to 1.5THz. These modules combine high test port power with exceptional dynamic range and unmatched stability.

VDI's mini-modules are reduced in size, but yield the same industry leading performance as our original designs. The compact form factor and simplified power supply make them the recommended solution for most applications.

Mini-modules are currently available in standard waveguide bands for 26GHz to 1.1THz with higher frequency bands under development.

Waveguide Band (GHz)	WR28 26-40	WR19 40-60	WR15 50-75	WR12 60-90	WR10 75-110	WR8 90-140	WR6.5 110-170	WR5.1 140-220	WR4.3 170-260	WR3.4 220-330	WR2.8 260-400	WR2.2 330-500	WR1.5 500-750	WR1.0 750-1,100
Dynamic Range														
(BW=10Hz, dB, typ)	120	120	120	120	120	120	120	120	115	115	110	110	110	95
(BW=10Hz, dB, min)	110	105	110	110	110	110	110	110	110	105	100	100	95	75
Test Port Power (dBm)	13	17	18	18	18	16	13	6	4	1	-1	-3	-12	-23

VIRGINIA DIODES

Virginia Diodes, Inc.
979 2nd St. SE, Suite 309
Charlottesville, VA 22902
434.297.3257
vadiodes.com

Contents

Welcome Message from the General Chairs

Hang Wong
General Chair

Shao Yong Zheng
General Co-Chair

Alex M. H. Wong
General Co-Chair

Welcome to the 2025 IEEE International Workshop on Electromagnetics: Applications and Student Innovation Competition (iWEM2025), taking place in Hong Kong from 4 to 6 August 2025. iWEM2025 is co-organized by the IEEE Hong Kong AP/MTT Joint Chapter and the State Key Laboratory of Terahertz and Millimeter Waves at City University of Hong Kong, with technical sponsorship from IEEE AP-S.

This workshop series rotates among Taiwan, China, Hong Kong and Japan. Building on the success of previous editions, iWEM2025 continues to uphold its reputation as a hub for knowledge exchange and international networking. It also provides a valuable stage for young scholars and students to showcase their innovative research. iWEM especially focuses on student innovations and runs a research competition to nurture future young leaders.

This year, the technical program is packed with 6 keynote speeches, presentations by 8 distinguished scientists and young scholars, and 27 organized special sessions. The keynote addresses will cover a range of cutting-edge topics on advanced antenna technologies, terahertz systems and 6G communications and will be delivered by Professor Christopher Fumeaux, Professor Hisamatsu Nakano, and Professor Yubin Gong on Day 1, followed by Professor Richard W. Ziolkowski, Professor Kin-Lu Wong, and Professor Arokiaswami Alphones on Day 2.

Beyond the technical sessions, we encourage you to immerse yourself in the unique charm of Hong Kong. From iconic landmarks like Victoria Harbour to the new arts and cultural hub in West Kowloon Cultural District. Don't miss the opportunity to explore its dynamic city life and world-renowned cuisine.

Last but not least, we extend our gratitude to our industrial sponsors, including Rohde & Schwarz, Keysight Technologies and Virginia Diodes Inc., for their continued support and contributions.

We look forward to meeting you in Hong Kong and creating lasting memories at iWEM2025.

Welcome Message from the TPC Chairs

Wei Lin
TPC Co-Chair

Geng Bo Wu
TPC Co-Chair

Sai-Wai Wong
TPC Co-Chair

On behalf of the Technical Program Committee, we cordially welcome you to the 2025 IEEE International Workshop on Electromagnetics: Applications and Student Innovation Competition (iWEM2025) in Hong Kong, SAR, China.

Over the years, iWEM has grown into a premier platform for the exchange of information on cutting-edge advancements in electromagnetic theory, antenna designs, and measurements spanning from microwave to terahertz frequency. This workshop offers an excellent opportunity for our global community to come together, exchange ideas, share insights, and foster collaborations.

We are much delighted to present a unique technical program for iWEM2025, made possible by the dedicated efforts of all authors, speakers, reviewers, and the Technical Program Committee members. This year, we received over 200 high-quality submissions from 15 countries/regions and accepted 187 papers (157 full papers and 42 invited papers) after careful and rigorous review. The conference will be held onsite, featuring 36 technical sessions (27 special sessions, 5 regular sessions and 4 interactive forums) focused on key themes such as antennas, millimeter-waves, terahertz, and systems. We are also honored to host 6 plenary sessions, innovation series of distinguished scientists and innovation series of distinguished young scholars, scheduled across the first two days of the event.

iWEM recognizes the excellent work of researchers and encourages innovations through awarding prizes such as the Best Paper Awards and Best Student Paper Awards. Notably, iWEM2025 will introduce a new award, i.e., Innovation Awards, that will be supported by our industrial sponsor. All competition papers will undergo thorough evaluation by the Award Committee, and the winners will be announced at the banquet on Day 2. We extend our heartfelt thanks to the Technical Program Committee members and reviewers for their invaluable contributions, and to all authors and presenters for their hard work and dedication.

We hope you will find iWEM2025 rewarding and enjoyable. We look forward to welcoming you in Hong Kong!

Organizing Committee

General Chair

Hang Wong
City University of Hong Kong

General Co-Chairs

Shao Yong Zheng
Sun Yat-sen University

Alex M. H. Wong
City University of Hong Kong

Technical Program Committee Co-Chairs

Wei Lin
The Hong Kong Polytechnic University

Gengbo Wu
City University of Hong Kong

Sai-Wai Wong
Shenzhen University

Special Session Co-Chairs

Fu Chang Chen
South China University of Technology

Kaixu Wang
Harbin Institute of Technology

Gangil Byun
Ulsan National Institute of Science and Technology

Zhe Chen
Shenzhen University

Menglin Chen
The Hong Kong Polytechnic University

Award Chairs

Steven Gao
The Chinese University of Hong Kong

Kin-Fai Tong
Hong Kong Metropolitan University

Finance Chair

Ka Fai Chan
City University of Hong Kong

Publication Chair

Chi Yuk Chiu
Hong Kong University of Science and Technology

Sponsorship Chair

Kam Man Shum
City University of Hong Kong

Local Arrangement Co-Chairs

Sharon Chan
City University of Hong Kong

Constance Yeung
City University of Hong Kong

Wai Ho Yu
City University of Hong Kong

International Steering Committee

Chair

Dau-Chyrh Chang
Asia Eastern University of Science and Technology

Co-Chairs

Kwai Man Luk
City University of Hong Kong

Hiroyuki Arai
Yokohama National University

Qing-Xin Chu
South China University of Technology

Members

Chi Hou Chan
City University of Hong Kong

Wen Quan Che
South China University of Technology

Kin-Fai Tong
Hong Kong Metropolitan University

Wen Shan Chen
Southern Taiwan University of Science and Technology

Kin-Lu Wong
National Sun Yat-sen University

Kwok L. Chung
Guangzhou Institute of Science and Technology

Kunio Sakakibara
Nagoya Institute of Technology

Yingsong Li
Anhui University

Tsu-Hsiang Ko
Lunghwa University of Science and Technology

Hang Wong
City University of Hong Kong

Shao Yong Zheng
Sun Yat-sen University

Alex M. H. Wong
City University of Hong Kong

Wei Lin
The Hong Kong Polytechnic University

Gengbo Wu
City University of Hong Kong

Sai-Wai Wong
Shenzhen University

Co-Chairs

Wei Lin
The Hong Kong Polytechnic University

Gengbo Wu
City University of Hong Kong

Sai-Wai Wong
Shenzhen University

Members

Gangil Byun
Ulsan National Institute of Science and Technology

Yuanxi Cao
Xi'an Jiaotong University

Fu-Chang Chen
South China University of Technology

Menglin Chen
The Hong Kong Polytechnic University

Xiaoming Chen
Xi'an Jiaotong University

Zhe Chen
Shenzhen University

Zihao Chen
Harbin Institute of Technology

Kwok L. Chung
Guangzhou Institute of Science and Technology

Botao Feng
Shenzhen University

Shuai Gao
Shenzhen University

Qing-Yi Guo
Shenzhen University

Hao-Tao Hu
Sun Yat-sen University

Jun Hu
Hefei University of Technology

Zhenxin Hu
Guangdong University of Technology

Guanlong Huang
Foshan University

Zhi Hao Jiang
Southeast University

Huangyan Li
Nanjing University of Science and Technology

Jianxing Li
Xi'an Jiaotong University

Jinxin Li
Hunan University

Ming Li
University of Technology Sydney

Peng-Fa Li
University of Electronic Science and Technology of China

Yujian Li
Beijing Jiaotong University

Yingsong Li
Anhui University

Jing-Yu Lin
Xiamen University

Wei Lin
The Hong Kong Polytechnic University

Yu Luo
Tianjin University

Chunxu Mao
South China University of Technology

Jun-Hui Ou
South China University of Technology

Peiyuan Qin
University of Technology Sydney

Xue Ren
Shenzhen University

Technical Program Committee

Fei Shen
Dongguan University of Technology

Guanghua Sun
Harbin Institute of Technology

Yu-Xiang Sun
Shenzhen University

Jinhong Wang
Northwestern Polytechnical University

Kai-Xu Wang
Harbin Institute of Technology

Shaomeng Wang
University of Electronic Science and Technology of China

Shiquan Wang
Nanyang Technological University

Xiang Wang
Nanjing University of Science and Technology

Yubo Wen
University of Technology Sydney

Sai-Wai Wong
Shenzhen University

Fan Wu
Southeast University

Gengbo Wu
City University of Hong Kong

Qi Wu
Southeast University

Yafei Wu
University of Electronic Science and Technology of China

Yu Xiao
Sun Yat-sen University

Kai Xu
Nantong University

Xu Yan
City University of Hong Kong

Chen Yang
Beijing Institute of Technology

Ke Yang
Northwestern Polytechnical University

Nan Yang
Sun Yat-sen University

Xujun Yang
Anhui Agricultural University

Bohai Zhang
Shenzhen University

QingLe Zhang
Shenzhen University

Chen Zhao
Nanjing University of Information Science and Technology

Luyu Zhao
Anhui University

Xinyu Zhou
The Hong Kong Polytechnic University

Jianfeng Zhu
South China University of Technology

Shu-Yan Zhu
Sun Yat-sen University

Reviewers

Marco A. Antoniades
Viet Phuong Bui
Gangil Byun
Fu-Chang Chen
Jin Chen
Xiaoming Chen
Zhe Chen
Qing-Xin Chu
Kwok Chung
Kimberley W. Eccleston
Xiaohu Fang
Yijun Feng
Takeshi Fukusako
Yuehe Ge
Junping Geng
Pratik Ghate
Zi-Jun Guo
Jiro Hirokawa
Yafei Hou
Hao-Tao Hu
Guan-Long Huang
Shaoxin Huang
Yongjun Huang
Nobuyuki Itoh
Tadashi Kawai
Yoshiki Kayano
Dmitry Kholodnyak
Nobuhiro Kuga
Yuan Chun Li
Zheng Li
Zi-Liang Liu
Dingfei Ma
N Nasimuddin
Masataka Ohira
Shinichiro Ohnuki
Ikmo Park
Peiyuan Qin
Xianming Qing
Wu Qun
Xue Ren
Kunio Sakakibara
Abhishek Sharma
Dongya Shen
Zhongxiang Shen
Jin Shi
Chow-Yen-Desmond Sim
Yu-Xiang Sun
Toru Takahashi
Xianzhong Tian
Yasuhide Tsuji
Chao-Fu Wang
Guoan Wang
Kaixu Wang
Withawat Withayachumnankul
Sai-Wai Wong
Xidong Wu
Ya Fei Wu
Jing Xia
Xiaoyue Xia
Jun Xu
Wataru Yamada
Tsunayuki Yamamoto
Xu Yan
Chenfeng Yang
Jianing Yang
Nan Yang
Satoshi Yoshida
Tao Yuan
Yuansong Zeng
Kuang Zhang
Miao Zhang
Qingle Zhang
Xingqi Zhang
Luyu Zhao
Dongze Zheng
Hao-Ran Zhu
He Zhu
Shuyan Zhu

Volunteers

Liyuan Cao
Sicheng Chen
Zhi Hua Chen
Feiyang Deng
Jiachen Du
Hao Guo
Jiawen Hao
Jianhui Huang
Runqi Jia
Sheng Lei
Qiuyang Li
Zhicheng Lin
Ji Liu
Yifeng Liu
Yuefei Liu
King Tung Lo
Haochen Mao
Yingxue Mo
Chunling Qi
Kai Qin
Bowen Ren
Wenjian Sun
Yiqing Sun
Hiu Lok Tam
Qian Tan
Peiwen Tang
Wenyi Teng
Yat Sing To
Kaicheng Wang
Zixi Wang
Chun Kit Wong
Luxiao Xu
Xinyao Yang
Jinjie Zhang
Yuxin Zhang

Plenary Session 1
Multimode and Reconfigurable Antennas: One Shared Volume for Multiple Functionalities

Christophe Fumeaux
IEEE AP-S President
The University of Queensland

Date/Time:
Monday, 4 August 2025 / 8:55-9:35

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Abstract
The ubiquity of wireless communications places unique challenges on antenna technologies. This presentation will discuss two directions of antenna research and development that will help satisfy the growing requirements for multifunctional wireless communications.

The first part of the talk will consider reconfigurable antennas and discuss how the ability to dynamically control radiation properties can benefit a broad range of applications, including for example, scanning for objects in the Internet-of-Things, tuning to a desired frequency in a software-defined radio system, or adapting a wearable antenna to body movement and a constantly changing electromagnetic environment. In the second part of the talk, the concept of multi-port multi-mode antennas will demonstrate how new approaches will support emerging multi-functional applications, such as integrated sensing and communications, in a shared limited antenna volume.

Biography
Prof. Christophe Fumeaux received his Ph.D. degree from ETH Zurich, Switzerland, in 1997. From 1998 to 2008, he held various positions at the University of Central Florida, the Swiss Federal Office of Metrology, and ETH Zurich. From 2008 to 2023, he was a Professor with The University of Adelaide. In 2023, he joined the School of Electrical Engineering and Computer Science at The University of Queensland, as Chair Professor in Optical and Microwave Engineering. His main research interests concern applied electromagnetics, antenna engineering, and the application of RF design principles across the electromagnetic spectrum.

Prof. Fumeaux was the recipient of the ETH Medal for his doctoral dissertation. He was the recipient of the 2018 Edward E. Altshuler Prize, the 2014 IEEE Sensors Journal and the 2004 ACES Journal best paper awards. He was the recipient of the University of Adelaide 2018 Stephen Cole the Elder Award for Excellence in PhD Supervision. From 2017 to early 2023, he served as the Editor-in-Chief for the IEEE Antennas and Wireless Propagation Letters. He is the 2025 President of the IEEE Antennas and Propagation Society. He is a Fellow of the IEEE.

Plenary Sessions

Plenary Session 2
Recent Progress in Circularly Polarized Meta Antennas

Hisamatsu Nakano
Hosei University

Date/Time:
Monday, 4 August 2025 / 9:35-10:15

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Abstract
Antennas are categorized as either natural or metamaterial (MTM) antennas. The former have an electromagnetic property found in nature, i.e., a right-handed property, and the latter have an electromagnetic property not existing in nature, i.e., a left-handed property or a composite (right- and left-handed) property. This talk presents recent progress in MTM antennas: a metaline antenna, a metaloop antenna, a metaspiral antenna, and a metacurl antenna. Note that these MTM antennas have a low-profile structure on the order of l/100 wavelength.

Firstly, a characteristic of the metaline antenna is described, where circularly polarized (CP) beam-scanning with change in frequency is realized. An array of bent metalines that realizes CP beam scanning is also described. Secondly, an analysis of the metaloop antenna is presented, revealing that it possesses a counter CP dual band characteristic, i.e., left-handed CP radiation across a specific frequency band and right-handed CP radiation across a different frequency band. Thirdly, the metaspiral antenna is discussed, focusing on its CP beam-scanning capability in both the azimuth and elevation planes. Fourthly, the metacurl antenna is explored, showing that the antenna can radiate both a left-handed CP wave and a right-handed CP wave, each with the same maximum gain.

Biography
Prof. Hisamatsu Nakano has been with Hosei University since 1973, where he is currently an Honorary Professor and a Special-appointment Researcher with the Electromagnetic Wave Engineering Research Institute attached to the graduate school. He has published over 370 articles in peer-reviewed journals and 12 books/book chapters, including "Low-profile Natural and Metamaterial Antennas (IEEE Press-Wiley, 2016)." His significant contributions are the development of five integral equations for line antennas in free space and printed on a dielectric substrate, the invention of an L-shaped wire/strip antenna feeding method, and the realization of numerous wideband antennas, including curl, metaspiral, metahelical, and Body of Revolution antennas. His other accomplishments include design of antennas for GPS, personal handy phones, space radio, electronic toll collection, RFID, UWB, and radar. He received the H. A. Wheeler Award in 1994, the Chen-To Tai Distinguished Educator Award in 2006, and the Distinguished Achievement Award in 2016, all from the IEEE Antennas and Propagation Society. He was also a recipient of The Prize for Science and Technology from Japan's Minister of Education, Culture, Sports, Science and Technology in 2010. Recently, he was selected as a recipient of the Antenna Award of the European Association on Antennas and Propagation (EurAAP) in 2020. Most recently, he was selected by the Japanese government as a recipient of The Order of the Sacred Treasure, Gold Rays with Neck Ribbon on November 3 (Japan Culture Day), 2023.

Plenary Session 3
Research on Free Electron Radiation Sources at Terahertz Wave Band

Yubin Gong
University of Electronic Science and Technology of China

Date/Time:
Monday, 4 August 2025 / 10:15-10:55

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Abstract
Vacuum electron devices can generate or amplify electromagnetic waves by converting the kinetic energy of free electrons into electromagnetic radiation. As vacuum electron devices advance toward terahertz (THz) frequencies, their shrinking dimensions due to shorter operation wavelengths lead to reduced electron beam channels and significant power attenuation, posing critical challenges for THz radiation source development. To address this, our research employs three approaches: 1) conventional vacuum electronic devices with advanced fabrication technology, 2) beam-plasma radiation sources, and 3) plasmonic on-chip THz radiation sources.

We enhance conventional vacuum electron devices by optimizing their physical mechanisms through micro/nano-structure design and high-precision microfabrication. By analyzing the radiation characteristics of free electrons traveling through the micro/nano periodic structures, radiation intensity and coherence can be improved while enabling large-cavity operation. This approach can suppress mode competition, enhance coupling impedance, and achieve effective multi-beam power synthesis in big size cavities.

The interaction among relativistic electron beams, plasmas, and electromagnetic waves offers another promising pathway for developing the next-generation high-power THz radiation sources. The plasma-filled devices enable magnetic-field-free transport of high-current-density electron beams via space-charge neutralization. Such a system provides effective power conversion while maintaining device miniaturization. Specifically, our systematic investigations have uncovered several THz generation mechanisms in beam-plasma systems with different configurations, including the ion-focus Cherenkov radiation and the radiation based on beam-plasma instabilities. In addition, we explore THz plasmon wave excitation mechanisms, developing integrated on-chip plasmonic radiation sources. A DC-driven THz metasurface using two-dimensional electron gas as a free electron system is proposed. Theoretically, we establish a surface plasmon amplification theory to reveal the novel amplification mechanism in semiconductor heterostructures. Experimentally, we fabricate AlGaN/GaN HEMTs with periodic structures, and validate plasmon wave excitation and amplification effects. High power output at THz wave band has been achieved at room-temperature.

In summary, vacuum electron devices will continue to play significant roles in the future terahertz applications. New fabrication techniques have injected new vitality into the development of traditional vacuum electron devices at the terahertz wave band. In particular, the generalized free electron plasma wave devices have also provided new impetus for the development of micro-electron devices, further promoting the integration and on-chip development of vacuum electron devices.

Plenary Sessions

Biography
Prof. Yubin Gong is currently a full and chair professor at the University of Electronic Science and Technology of China (UESTC), where he became a faculty member in 1991. He received his Bachelor's degree in Applied Optics from Changchun University of Science and Technology in 1989, Master's degree and Ph.D. in Physical Electronics from UESTC in 1992 and 1998 respectively. He was a research assistant at the City University of Hong Kong from 1997 to 1998.

With a long-term dedication to scientific research and teaching in the fundamental theories, key technologies and applications of vacuum electronic devices, Prof. Gong's research mainly focus on broadband high-power traveling-wave tubes (TWTs), novel slow-wave structure millimeter-wave and terahertz TWTs, novel radiation mechanisms and principles of terahertz vacuum electron devices, as well as application of vacuum electron devices in life science. He has published over 400 academic papers in important journals and conferences, delivered keynote talks at numerous academic conferences, and hold more than thirty patents. Over the past decade, he has trained more than eighty master and doctoral students.

Plenary Session 4
Practical Superdirectivity - Back to the Future

Richard W. Ziolkowski
The University of Arizona

Date/Time:
Tuesday, 5 August 2025 / 10:00-10:40

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Abstract
Highly directive antenna systems are being sought to address the perceived needs of NextG wireless systems and their applications. Practical alternatives to complex, power-hungry phased arrays are truly desired. A potential approach is to develop and employ superdirective systems.

The concept of "needle" radiation was introduced by Oseen over 100 years ago. A number of papers then followed over a half century ago that discussed the theoretical concept of unlimited directivity, i.e., superdirectivity, from arbitrarily small source regions. Recent explicit solutions of Maxwell's equations based upon spherical wave expansions confirm this notion. Unfortunately, the consensus in the electromagnetics (EM) community generally has been that superdirective systems are impractical for reasons such as very low radiation resistance/efficiency; very large sensitivity to fabrication and component tolerances; and extremely narrow bandwidths. Nevertheless, a turning point in the history of superdirectivity occurred in the mid-2000's with a set of successes in which electrically small, superdirective two-element endfire arrays of electric elements were demonstrated. Several superdirective multi-element endfire arrays of a similar nature have been demonstrated using electric or magnetic dipoles in the last decade. Their basic approach follows from the theoretical demonstration that a densely packed linear array of M isotropic radiators can yield a directivity of M^2 in its endfire direction.

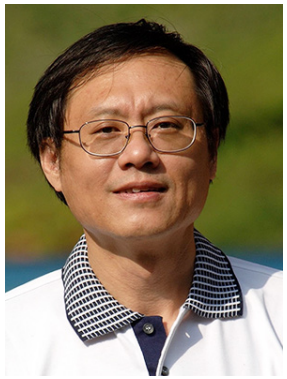
A more recent strategy to achieve superdirective performance has been to exploit mixtures of electric and magnetic multipoles. This multipole engineering paradigm has yielded unidirectional mixed-multipole antennas (MMAs) consisting of combinations of near-field resonant parasitic (NFRP) elements that are excited by simple driven dipoles and that exhibit multipole performance exceeding known directivity bounds. Their practical realizations address the concerns of efficiency, bandwidth, and fabrication/assembly tolerances. Superdirective endfire and broadside radiating systems have been demonstrated. Most recently, highly efficient, uniform circular arrays of unidirectional MMAs and MMA-excited multilayered-spherical dielectric lens antennas have also been realized.

These past historical aspects of superdirective systems, their physics and engineering electromagnetics, and recent innovative realizations will be reviewed. They encourage further superdirective research activities since they demonstrate that practical superdirective radiating systems are, in fact, achievable.

Biography
Prof. Richard W. Ziolkowski received the B. Sc. (magna cum laude) degree (Hons.) in physics from Brown University, Providence, RI, USA, in 1974; the M.S. and Ph.D. degrees in physics from the University of Illinois at Urbana-Champaign, Urbana, IL, USA, in 1975 and 1980, respectively; and an Honorary Doctorate degree from the Technical University of Denmark, Kongens Lyngby, Denmark in 2012.

He is currently a Professor Emeritus with the Department of Electrical and Computer Engineering at the University of Arizona, Tucson, AZ, USA. He was a Litton Industries John M. Leonis Distinguished Professor in the College of Engineering as well as a Professor in the College of Optical Sciences until his retirement in 2018. He was also a Distinguished Professor in the Global Big Data Technologies Centre in the Faculty of Engineering and Information Technologies (FEIT) at the University of Technology Sydney, Ultimo NSW Australia from 2016 until 2023. He was the Computational Electronics and Electromagnetics Thrust Area Leader with the Engineering Research Division of the Lawrence Livermore National Laboratory before joining The University of Arizona in 1990.

Prof. Ziolkowski was the recipient of the 2019 IEEE Electromagnetics Award (IEEE Technical Field Award). He is an IEEE Life Fellow as well as a Fellow of OPTICA (previously the Optical Society of America, OSA) and the American Physical Society (APS). He was the 2014-2015 Fulbright Distinguished Chair in Advanced Science and Technology (sponsored by DSTO, the Australian Defence Science and Technology Organisation). He served as the President of the IEEE Antennas and Propagation Society (AP-S) in 2005 and has had many other AP-S leadership roles. He is also actively involved with the International Union of Radio Science (URSI) and the European Association on Antennas and Propagation (EurAAP). He is the co-Editor of the best-selling 2006 IEEE-Wiley book, Metamaterials: Physics and Engineering Explorations, as well as an author and co-Editor of the recent Wiley-IEEE Press books: Advanced Antenna Array Engineering for 6G and Beyond Wireless Communications (2022) and Antenna and Array Technologies for Future Wireless Ecosystems (2022), respectively.



Plenary Session 5
6G Upper Mid-Band Device MIMO Communications: Extreme Receive Antennas-Aided MIMO and Modular MIMO antennas

Kin-Lu Wong
National Sun Yat-sen University

Date/Time:
Tuesday, 5 August 2025 / 10:40-11:20

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Abstract
For future six-generation (6G) upper mid-band mobile communications, the higher-order device MIMO such as the 8 x 8 MIMO is envisioned for the smartphone to achieve increased data rates for the user. However, it is worth noting that the 8 x 8 MIMO requires two times the transmitted power of current 5G 4 x 4 MIMO and has a more complex system architecture. Thus, whether it is cost effective to apply the 8 x 8 MIMO for increased data rates is not clear. In this talk, based on the extreme receive antennas (ERA)-aided MIMO, we demonstrate that the 8 x 4 MIMO (8 receive antennas for 4 spatial streams) with the same transmitted power as the 5G 4 x 4 MIMO can outperform the 8 x 8 MIMO to achieve higher data rates and lower energy per bit as well. The MIMO performance is experimentally conducted in the 7.1 GHz band in the campus outdoor scenario by applying modular MIMO antennas as receive antennas in the smartphone covering 6.425-8.4 GHz in the upper mid-band, which is promising to be a prime 6G mobile spectrum. The 8 x 4 MIMO in the outdoor field test can obtain a spectral efficiency of 31 bps/Hz; that is, with only 200 MHz bandwidth, the data throughput for the user can be larger than 6 Gbps in the 7.1 GHz band. The ERA-aided MIMO system and the MIMO performance based on applying modular MIMO antennas will be addressed.

Biography
Prof. Kin-Lu Wong is currently a Distinguished Chair Professor and the Director of 6G Communication and Sensing Research Center with National Sun Yat-sen University. Prof. Wong is a Life National Chair Professor awarded by Ministry of Education, Taiwan, a Thomson Reuters Highly Cited Researcher, and an IEEE Fellow. He has authored more than 590 refereed journal papers and has supervised 57 graduated PhDs. He also holds over 300 patents, including 106 U.S. patents. Prof. Wong's published articles have been cited over 38,000 times with an H-index of 91 in Google Scholar. He served as General Chairs for 2012 APMC, 2014 ISAP, and 2016 APCAP held at Kaohsiung, Taiwan; and also served as the International Advisory Committee Chair for 2021 ISAP and Honorary General Chair for 2023 APMC held at Taipei, Taiwan.

Plenary Sessions

Plenary Session 6
Terahertz Transceiver for 6G Systems

Arokiaswami Alphones
Nanyang Technological University

Date/Time:
Tuesday, 5 August 2025 / 11:20-12:00

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Abstract
The fifth-generation (5G) technology has been rolled out in the beginning of this decade. This technology can support any spectrum ranging from 400 MHz to 90 GHz. The 5G systems will mainly use two frequency bands, namely Sub-6 GHz (below 6 GHz) and millimeter wave (above 24 GHz) besides sub 1 GHz band. The 5G frequency bands used in various countries under three categories: licensed, shared, and existing. The Sub-6 GHz band has better geographical coverage than the millimetre wave band as the lower frequency signals can easily penetrate buildings/obstacles. Another advantage of using a Sub-6 GHz band is that it can be easily installed alongside existing 4G long term evolution (LTE) infrastructure. Seeing the evolution of each generation by every decade, the next evolution targeted is 6G system which is expected to be around 2030 and the spectrum focussed is THz band. Hence the transceivers to be used for various applications like hand held devices, wearable electronics, IoT systems, Satellite and automotive radar systems need to be designed to meet the specifications and standards dictated by the 5G/6G wireless community.

Biography
Prof. Arokiaswami Alphones received his B.Tech. from Madras Institute of Technology in 1982, M.Tech. from Indian Institute of Technology Kharagpur in 1984 and Ph.D. degree in Optically Controlled Millimeter wave Circuits from Kyoto Institute of Technology (Japan) in 1992. He was a JSPS visiting fellow from 1996-97 at Japan. During 1997-2001, he was with Centre for Wireless Communications, National University of Singapore involved in the teaching and research on optically controlled passive/active devices. Since 2001 he is with the School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore. He has 40 years of research experience. He has published and presented over 350 technical papers in peer reviewed International Journals/ Conferences. His current interests are electro-magnetic analysis on planar RF circuits and integrated optics, microwave photonics, visible light communication and positioning, metamaterial based leaky wave antennas, THz transceiver for 6G Systems and wireless power transfer technologies. He was involved many IEEE flagship conferences held in Singapore and General Chair of APMC 2009, MWP 2011, TENCON 2016, APMC 2019, APMC 2024 and TENCON 2024. He was the chairman of IEEE Singapore section during 2015-2016, 2018, 2023 and a senior member of IEEE. He is Singapore representative of IEICE(Japan). He is also the panel member of IEEE Conference Application Review Committee. He is also R10 coordinator for IEEE MTT-S MGA member.

Innovation Series of Distinguished Scientists

Date/Time:
Monday, 4 August 2025 / 15:20 – 17:20

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Wideband / Reconfigurable Millimeter-Wave Integrated Circuits and Antennas for Phase Array Application

Xiuyin Zhang

South China University of Technology

Antenna-on-Display using Traveling-wave mode for Integrated Sensing and Communication (ISAC) for Mobile Platforms

Wonbin Hong

Pohang University of Science and Technology

Multi-Mode Multi-Port Antennas with Polarization- and Pattern-Diversity

Ying Liu

Xidian University

Millimeter-Wave Wideband Complementary Source Antenna Arrays

Yujian Li

Beijing Jiaotong University

Innovation Series of Distinguished Young Scholars

Date/Time:
Tuesday, 5 August 2025 / 14:35 – 16:35

Venue:
Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Millimeter-Wave/Terahertz CMOS Multipliers with High Efficiency and Wide Bandwidth

Sanming Hu

Southeast University

Origami Deployable Reflectarray Antennas for Small Satellites

Takashi Tomura

Institute of Science Tokyo

A Dual-polarized mmWave Mono-pulse Radar Antenna with 3D Tracking Capability Using GWG Techniques

Xiaoming Chen

Xi'an Jiaotong University

Backscatter-Modulated Millimeter-Wave Tags for Enhanced Multi-Target Detection and Clutter Suppression

Gangil Byun

Ulsan National Institute of Science and Technology

Day 1 (Monday)

Session Code	Session Title/Organizer
MS1	**Underwater/Underground Electromagnetic Fields Application** Jinhong Wang and Ke Yang *(Northwestern Polytechnical University)*
MS2	**Advanced Antenna Technology for the Next Generation of Communications** Chen Zhao *(Nanjing University of Information Science and Technology)* and Zhenxin Hu *(Guangdong University of Technology)*
MS3	**Antennas for Next-Generation Wireless Communications** Nan Yang *(Sun Yat-sen University)* and Yu-Xiang Sun *(Shenzhen University)*
MS4	**Innovative Millimeter-Wave and Terahertz Antennas for 5G/6G and Beyond** Shu-Yan Zhu *(Sun Yat-sen University)* and QingLe Zhang *(Shenzhen University)*
MS5	**Advanced Technologies for Wireless Power Transmission and Energy Harvesting** Jun-Hui Ou *(South China University of Technology)*
MS6	**AI in Antennas and Emerging Wireless Applications** Luyu Zhao *(Anhui University)*, Yu Luo *(Tianjin University)* and Wei Lin *(The Hong Kong Polytechnic University)*
MS7	**Emerging Research Advances in Electromagnetics Led by Young Professionals in South Korea** Gangil Byun *(Ulsan National Institute of Science and Technology)*
MS8	**Recent Advances in Metasurfaces for Complex Wave Propagation, Radiation, and Conversion** Menglin Chen *(The Hong Kong Polytechnic University)*

Day 2 (Tuesday)

Session Code	Session Title/Organizer
TS1	**Artistic Innovations in Multifunctional Antennas: Reconfigurable Designs and Metasurfaces for Next-Generation Communication and Sensing** Kwok L. Chung *(Guangzhou Institute of Science and Technology)*, Botao Feng *(Shenzhen University)* and Shiquan Wang *(Nanyang Technological University)*
TS2	**Decoupling Technology in the New Generation Wireless Communication System** Kai Xu *(Nantong University)* and Chen Yang *(Beijing Institute of Technology)*
TS3	**Novel GaN Power Amplifier Techniques for Various Applications** Xinyu Zhou *(Hong Kong Polytechnic University)*
TS4	**Recent Developments of Array Antennas: Time Modulation, Spatial Beam Scanning and New Applications** Peng-Fa Li *(University of Electronic Science and Technology of China)*, Xue Ren *(Shenzhen University)* and Jianfeng Zhu *(South China University of Technology)*
TS5	**Advanced Antenna and RF Component Designs for Millimeter-Wave and Terahertz Applications** Jianxing Li *(Xi'an Jiaotong University)*, Yingsong Li *(Anhui University)* and Yuanxi Cao *(Xi'an Jiaotong University)*
TS6	**Advances in Wideband and Beam-scanning Antenna Arrays for Radar and Wireless Communication Systems** Yujian Li *(Beijing Jiaotong University)*, Zhi Hao Jiang *(Southeast University)* and Fan Wu *(Southeast University)*
TS7	**Advances of Artificial Intelligence in Microwave Device Optimization** Qi Wu *(Southeast University)* and Jinxin Li *(Hunan University)*
TS8	**High-Gain Millimeter-Wave Reconfigurable Antennas** Xujun Yang *(Anhui Agricultural University)* and Jun Hu *(Hefei University of Technology)*
TS9	**Innovative Technologies in Transmitarray/Lens Antennas and RISs for 6G Systems** Ming Li, Yubo Wen and Peiyuan Qin *(University of Technology Sydney)*
TS10	**Rohde and Schwarz Session** Jian Wang *(Rohde & Schwarz Hong Kong Ltd)*

Day 3 (Wednesday)

Session Code	Session Title/Organizer
WS1	**Emerging Trends in Metamaterials and Antenna Engineering** Huangyan Li and Xiang Wang *(Nanjing University of Science and Technology)*
WS2	**High Power Terahertz Structures and Devices** Shaomeng Wang *(University of Electronic Science and Technology of China)* and Fei Shen *(Dongguan University of Technology)*
WS3	**Innovative Multifunctional Filtering Devices: from Microwave to THz** Hao-Tao Hu *(Sun Yat-sen University)*, Qing-Yi Guo *(Shenzhen University)* and Fu-Chang Chen *(South China University of Technology)*
WS4	**Microwave and Millimeter-wave Integrated Circuits and Antennas for Sensing and Communication** Jing-Yu Lin *(Xiamen University)* and Sai-Wai Wong *(Shenzhen University)*
WS5	**Advances in Microwave Circuits, Devices, and Systems for Next-Generation Wireless Communication and Sensing Applications** Gengbo Wu *(City University of Hong Kong)*, Yafei Wu *(University of Electronic Science and Technology of China)* and Xu Yan *(City University of Hong Kong)*
WS6	**Low-Cost Millimeter-Wave/THz Antennas and Arrays** Chunxu Mao *(South China University of Technology)*, Guanlong Huang *(Foshan University)* and Xiaoming Chen *(Xi'an Jiaotong University)*
WS7	**Innovative Lens Antennas for 5G and B5G Communications** Kai-Xu Wang *(Harbin Institute of Technology)* and Yu Xiao *(Sun Yat-sen University)*
WS8	**Innovative RF System and Antenna Designs for B5G/6G Communications** Bohai Zhang, Zhe Chen and Shuai Gao *(Shenzhen University)*
WS9	**Technological Developments and Challenges in Wideband and Integrated Millimeter-Wave and Terahertz Antennas** Zihao Chen and Guanghua Sun *(Harbin Institute of Technology)*

The registration counter will be located on the 3/F, Li Dak Sum Yip Yio Chin Academic Building (near Joseph Lee Hall – room 3505).

The registration counter will be opened during these times:

Date/Day	Time
4 August 2025 (Monday)	08:30 – 16:30
5 August 2025 (Tuesday)	08:15 – 16:00
6 August 2025 (Wednesday)	08:30 – 11:00

Delegates are required to bring along their payment receipt (Printed or Electronic).

Registration fee

Categories	Early Bird registration By 30 June 2025	Regular After 30 June 2025
IEEE Member	5,600 HKD	6,300 HKD
Non-IEEE Member	6,800 HKD	7,500 HKD
Student	3,400 HKD	4,100 HKD

*Note: *IEEE Membership number is required to qualify for the respective rates*

Registration Terms & Policies

General

1. All registration fees include:
   - Access to all technical sessions
   - Tea Breaks, from Monday to Wednesday
   - One copy of the workshop program book in physical format (Digital format will be distributed online)
   - Lunches
   - Welcoming Reception
   - Banquet (Limited Seats, First-Come First-Served)
2. **One** registration covers up to **TWO (2)** accepted papers. To link a registration to a paper, the registrant must be listed as an author or co-author of that paper.

Registration

Currency & Payment

1. All registration fees are stated in Hong Kong Dollars (HKD).
2. Payment in any other currency will not be accepted.
3. You will receive a confirmation email upon the completion of your registration. We recommend that you keep this confirmation easily accessible, as you would need to present it at the workshop's registration desk.

Refund Policy

All registration fees are **non-refundable**. We appreciate your understanding and encourage you to carefully consider your registration before proceeding.

No Show Policy

Any accepted paper that appears in the final program is required to have at least one author or a qualified proxy attend and present it at the workshop. Authors of accepted papers who fail to attend and present at the workshop will be marked as “No Show.” Papers designated as “No Show” will not be published by IEEE on IEEE Xplore® or other public access platforms. However, these papers will still be included in the electronic proceedings, and the copyright of these papers will belong to IEEE.

Presentation Instructions

Instructions for Presenters in Oral Sessions (Special Sessions and Regular Sessions)

(1) Speakers are requested to be in their respective session rooms at least 10 minutes prior to the commencement of each session. The duration of each oral presentation is 15 minutes. This includes 10 minutes for the presentation itself and 5 minutes for questions from the audience. Your oral presentation should not exceed 15 minutes. The session chair will give you a reminder at 3 minutes before the presentation time ends.

(2) Your presentation will be followed by a Question & Answer (Q & A) session. The length of your Q & A session will be determined by the session chair(s), depending on the progress of the presentations in the session. Generally, the Q & A session for each paper will not exceed 5 minutes.

(3) You may find your presentation session, date & time in the e-Proceeding, Program Book, or on the website.

(4) Please prepare your presentation materials for the oral presentation. We prefer using Microsoft PowerPoint or Adobe Acrobat as the presentation tool. Please bring your presentation materials on a USB Flash Drive and submit to the student helper at the end of the preceding session, or at least 10 minutes before the start of your session. You should also report to their respective session chairperson(s) to inform them of your presence.

(5) In order to minimize technical difficulties and time wastage, a common Windows-based computer will be used at the session venue. The use of individual personal computers or laptops is discouraged. It is also advisable to back-up your presentation materials.

(6) All papers must be presented in person at the conference in order to be included in the proceedings published in IEEE Xplore.

Instructions for Session Chairs in Oral Sessions

(1) Session Chairs should arrive at the presentation venue at least 10 minutes before the session starts.

(2) Student helpers will be there to assist you and to inform you of any last minute changes or matters. You will be given a sheet to mark the attendance of the presenters. At the end of the session, please sign off on the sheet and pass it to the student helpers.

(3) If a presentation is cancelled or no show, the time slot of the remaining presentations in the session should not be moved up or otherwise changed.

(4) The Oral presentation is 15 minutes in length (10 minutes for presentation and 5 minutes for Q&A). The student helper will signal to the presenter after 7 minutes that there is only 3 minutes remaining for the presentation. If the presentation stretches over 14 minutes, you may intervene to cut short the presentation to ensure strict adherence to the program schedule. It will be good if you can remind your presenters about this before the start of the session.

(5) Each presentation will be followed by a Question & Answer (Q & A) session. The length of Q & A session will be determined by you and the other session chair (if any), depending on the progress of the presentations in the session. You should control the Q & A session time so that it will not exceed 5 minutes.

(6) Kindly refer to the Technical Program (available at the conference website and in the Program Book) for your session to be chaired, time and venue. A copy of the latest technical session will be posted on the notice board outside the venue.

Presentation Instructions

Instructions for Presenters in Interactive Forum (Poster) Session

(1) Posters must be displayed in portrait format, A0 in size (84 cm (Width) x 120 cm (Height)). Stationery will be available on-site for you to mount your poster.

(2) Your poster should be put up at least 10 minutes before the start of the session according to the assigned poster panel number, which can be found at the interactive forum session venue. You should report to the respective session chairperson(s) to inform them of your presence, and are expected to stand by your poster to introduce your work and answer any questions during the session. At the end of the session, please remove your poster.

(3) All posters must be presented in person at the conference in order to be included in the proceedings published in IEEE Xplore.

Instructions for Session Chairs in Interactive Forum (Poster) Sessions

(1) Student helpers will be there to assist you and to inform you of any last minute changes or matters. You will be given a sheet to mark the attendance of the presenters. At the end of the session, please sign off on the sheet and pass it to the student helpers.

(2) Kindly refer to the Technical Program (available at the conference website and in the Program Book) for your session to be chaired, time and venue. A copy of the latest technical session will be posted on the notice board outside the venue.

Technical Program
4 August 2025 (Monday)

Opening Ceremony

Time	8:45 – 8:55
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building

Plenary Session 1

Date / Time	Monday, 4 August 2025 / 8:55 - 9:35
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair	Alex M. H. Wong *(City University of Hong Kong)*

Multimode and Reconfigurable Antennas: One Shared Volume for Multiple Functionalities
Christophe Fumeaux
The University of Queensland

Plenary Session 2

Date / Time	Monday, 4 August 2025 / 9:35 - 10:15
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair	Alex M. H. Wong *(City University of Hong Kong)*

Recent Progress in Circularly Polarized Meta Antennas
Hisamatsu Nakano
Hosei University

Plenary Session 3

Date / Time	Monday, 4 August 2025 / 10:15 - 10:55
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair	Alex M. H. Wong *(City University of Hong Kong)*

Research on Free Electron Radiation Sources at Terahertz Wave Band
Yubin Gong
University of Electronic Science and Technology of China

10:55–11:10 Tea Break

Session	**[MS1] Underwater/Underground Electromagnetic Fields Application**
Date	Monday, 4 August 2025
Venue	RM 3614, 3/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs	Jinhong Wang and Ke Yang *(Northwestern Polytechnical University)*

11:10-11:25	**[MS1-1] A Method for Accurate Relief-Well Location Using an Improved Bessel Model** Mingyu Gao, Ke Yang, Yizhe Wang, Peng Lin, Jinhong Wang and Yan Ma *(Northwestern Polytechnical University)*
11:25-11:40	**[MS1-2] Testing Method for the Dynamic State of Magnetic Dipole Motion** Xinyi Wang, Yuhui Qi and Bo Wang *(Kunming Shipborne Equipment Research and Test Center)*
11:40-11:55	**[MS1-3] Electromagnetic Scattering Characteristics of Metal Arc-Shaped Plate with Different Curvatures Under Underwater Magnetic Dipole Illumination** Yunnan Xiao and Jinhong Wang *(Northwestern Polytechnical University)*, Binfeng Yang *(Air Force Engineering University)*
11:55-12:10	**[MS1-4] Propagation Characteristics and Path Loss Analysis of Electromagnetic Waves in Stratified Seawater in Shallow Sea** Yizhe Wang, Ke Yang, Mingyu Gao, Peng Lin, Jinhong Wang and Yan Ma *(Northwestern Polytechnical University)*
12:10-12:25	**[MS1-5] Analysis of Low-Frequency Electromagnetic Scattering Fields of Underwater Dielectric Objects Based on the Method of Moments** Xiaoshuai Wang and Jinhong Wang *(Northwestern Polytechnical University)*, Binfeng Yang *(Air Force Engineering University)*
12:25-13:50	Lunch

Technical Program
4 August 2025 (Monday)

4 August (Monday)

13:50-14:05	**[MS1-6] Localization Model of Alternating Magnetic Dipoles in Seawater** Guangyuan Tian and Yan Ma *(Northwestern Polytechnical University)*, Xuanji Yang *(Sunresin New Materrials Co., Ltd.)*
14:05-14:20	**[MS1-7] A Real-Time Direct Wave Interference Cancellation Method for Underwater Frequency Modulated Electromagnetic Detection System** Hao Zhang, Yan Ma and Jinhong Wang *(Northwestern Polytechnical University)*
14:20-14:35	**[MS1-8] Enhancing Cross-Domain Magnetic Induction Communication via DF Relay with DPSK-DSSS Modulation** Xiaoming Qi, Jinhong Wang and Xin Zhang *(Northwestern Polytechnical University)*, Binfeng Yang *(Air Force Engineering University)* and Ruoxue Cheng *(Northwestern Polytechnical University)*
14:35-14:50	**[MS1-9] Adaptive Multi-Band Noise Reduction and Intelligent Recognition of Fundamental Frequency for Ship Shaft - Rate Magnetic Field Signal** Chang Yang, Yan Ma and Jinhong Wang *(Northwestern Polytechnical University)*
14:50-15:05	**[MS1-10] Electromagnetic Scattering Fields of Underwater Regular-Shaped Metal Targets Using Method of Moments (Invited)** Sihui Wang and Jinhong Wang *(Northwestern Polytechnical University)*, Binfeng Yang *(Air Force Engineering University)*

Session **[MS2] Advanced Antenna Technology for the Next Generation of Communications**
Date Monday, 4 August 2025
Venue RM 2312, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Chen Zhao *(Nanjing University of Information Science and Technology)* and Zhenxin Hu *(Guangdong University of Technology)*

11:10-11:25	**[MS2-1] Design of Low-sidelobe Transmitarray Antenna with the Method of Maximum Power Transmission Efficiency** Pengyuan Xu, Chen Zhao and Xiaoyu Feng *(Nanjing University of Information Science and Technology)*
11:25-11:40	**[MS2-2] A Three-Layer Hemispherical Luneburg Lens Antenna for Sub-6G Mobile Communications** *Hongxuan Wu and Hongbiao Chen (Guangdong University of Technology), Biqun Wu (Broadradio Communication Technology Co., Ltd.) and Zhenxin Hu (Guangdong University of Technology)*
11:40-11:55	**[MS2-3] A Wideband and High Aperture Efficiency Fabry-Perot Metasurface Antenna (Invited)** Yue Lin and Tianwei Deng *(Sun Yat-sen University, Shenzhen)*
11:55-12:10	**[MS2-4] Design of a Filtering High Gain Dielectric Resonator Antenna Array with Sidelobe Suppression** Jie-Er Zhang and Jian-Xin Chen *(Nantong University)*
12:10-12:25	**[MS2-5] A Wideband Co-Circularly Polarized Metasurface Antenna for In-Band Full-Duplex Communication (Invited)** Ying Ma, Tianwei Deng and Jingxing Feng *(Sun Yat-sen University)* and Wei Lin *(The Hong Kong Polytechnic University)*

Technical Program
4 August 2025 (Monday)

4 August (Monday)

Session **[MS3] Antennas for Next-Generation Wireless Communications**
Date Monday, 4 August 2025
Venue RM 2310, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Nan Yang *(Sun Yat-sen University)* and Yu-Xiang Sun *(Shenzhen University)*

11:10-11:25	**[MS3-1] Compact Filtering Planar Inverted-F Antenna Array with Enhanced Isolation (Invited)** Zheyuan Xu and Xiyao Liu *(Shenzhen University)*
11:25-11:40	**[MS3-2] A Wideband, High-Gain and Pattern-Diversity Dielectric Resonator Antenna** Qi Zhe Liang *(Shantou Polytechnic)*, Xiang Li, Xiao Sheng Fang, Rong Qiang Shu and Jia Xin Xie *(Shantou University)*
11:40-11:55	**[MS3-3] Design of a Wideband Rectangular Dielectric Resonator Antenna Using Deep Learning** Xijiao Yang *(Tangshan Research Institute of BIT Tangshan)*, Yuanchao Shi ,Bin Li, Liangliang Cui, Chen Yang and Weidong Hu *(Beijing Institute of Technology)*
11:55-12:10	**[MS3-4] A Wideband Miniaturized Millimeter-Wave Fabry-Perot Cavity Antenna with Simplified Structure Enable by Dielectric-Filled-Shape-Cavity** Runcong Lv and Qing-Yi Guo *(Shenzhen University)*
12:10-12:25	**[MS3-5] Wideband Low-Profile Metasurface Antenna with Gain Enhancement** Qianghui Liu, Xin Chen and Yu-Xiang Sun *(Shenzhen University)*

Session **[MS4] Innovative Millimeter-Wave and Terahertz Antennas for 5G/6G and Beyond**
Date Monday, 4 August 2025
Venue RM 2308, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Shu-Yan Zhu *(Sun Yat-sen University)* and QingLe Zhang *(Shen Zhen University)*

11:10-11:25	**[MS4-1] Miniaturized Single-Layer Filtering Patch Antenna with Enhanced Gain and Bandwidth** Yue-Hua Wang and Peng Fei Hu *(Sun Yat-sen University)*, Kwok Wa Leung *(City University of Hong Kong)*
11:25-11:40	**[MS4-2] Silicon-Based Terahertz Beam Scanning Metalens Antenna (Invited)** Kexin Chen, Yilong Cai, Senrong You, Yunchu Li and Shu-Yan Zhu *(Sun Yat-sen University)*
11:40-11:55	**[MS4-3] A Super Wideband Miniaturized THz Antenna with a Slotted Partial Ground Plane for Ultra-High Speed 6G Communication Systems** Liton Chandra Paul and Sayed Shifat Ahmed *(Pabna University of Science and Technology)*, Tithi Rani *(Rajshahi University of Engineering and Technology)*, Sk A. Shezan *(Northern Border University)*, Md. Ashraful Haque *(Daffodil International University)* and Ali H Alenezi *(Northern Border University)*
11:55-12:10	**[MS4-4] Design of SIW Rotman Lens Multibeam Antenna with Broadband Termination Connecting to Back SIW in 300-GHz Band** Koki Shikano, Kenta Nishimura, Azuki Iwamoto, Kunio Sakakibara, Yoshiki Sugimoto and Nobuyoshi Kikuma *(Nagoya Institute of Technology)*
12:10-12:25	**[MS4-5] Miniaturized Triple-Wideband Double-Overlapped e-Shaped Antenna with Parasitic Elements for High-Speed THz Wireless Indoor Communications** Liton Chandra Paul and Sayed Shifat Ahmed *(Pabna University of Science and Technology)*, Tithi Rani *(Rajshahi University of Engineering and Technology)*, Sk A. Shezan *(Northern Border University)*, Md. Ashraful Haque *(Daffodil International University)* and Ali H Alenezi *(Northern Border University)*

Technical Program
4 August 2025 (Monday)

4 August (Monday)

Session **[MR1] Electromagnetic Theory & Computational Electromagnetics**
Date Monday, 4 August 2025
Venue RM 2306, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs Ho-Chang Lee *(Chung Yuan Christian University)* and Ding Nie *(Xidian University)*

11:10-11:25	**[MR1-1] Research on Doppler Spectrum of Electromagnetic Echoes Scattered from Wind-Driven Wave and Swell** Ding Nie, Shuaiyong Lin and Min Zhang *(Xidian University)*
11:25-11:40	**[MR1-2] Voltage-Controlled Oscillator with a Trifilar-Transformer** Ho-Chang Lee *(Chung Yuan Christian University)*, Sheng-Lyang Jang and Tsu-Wei Liu *(National Taiwan University of Science and Technology)*
11:40-11:55	**[MR1-3] Computational Human Skin Model for 5G Electromagnetic Field Exposure Studies** Ruben Otin and Eduardo Soudah *(International Center for Numerical Methods in Engineering)*, Gaetano Chirico and Fulvio Schettino *(University of Cassino and Southern Lazio)* and Noa Betzalel *(The Hebrew University of Jerusalem)*
11:55-12:10	**[MR1-4] Radar-Based Fall Detection Method Using Binary Contour Matrices** Bingyao Huang *(City University of Hong Kong)*, Zhi Zheng and Bo Wang *(National University of Singapore)*, Xianzhong Tian and Yongxin Guo *(City University of Hong Kong)*
12:10-12:25	**[MR1-5] A Novel ISAR Multi-Target Separation and Imaging Algorithm Based on Radon Transform and RPCA** Xiaoyu Qin, Yihang Tang, Jun Yi, Bin Deng, Hongqiang Wang and Chenggao Luo *(National University of Defense Technology)*

Session	**[MR2] Antenna Theory, Design, and Applications 1**
Date	Monday, 4 August 2025
Venue	RM 2614, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs	Wen-Shan Chen *(Southern Taiwan University of Science and Technology)* and Qi Wu *(Beihang University)*

11:10-11:25	**[MR2-1] Eight-Port MIMO Slot Antennas with an EBG Reflector at Wi-Fi 5.8 and 6GHz Bands for Access Point Applications (Invited)** Wen-Shan Chen and Bing-Hong Cai *(Southern Taiwan University of Science and Technology)*
11:25-11:40	**[MR2-2] Characteristic Mode Analysis - Some Application-Driven Developments (Invited)** Qi Wu *(Beihang University)*
11:40-11:55	**[MR2-3] Compact Dual-Band Dual-Polarized Omnidirectional Dipole Antenna for Wi-Fi 6E Applications** Yaqing Yu *(National University of Singapore (Chongqing) Research Institute)*, Da Yi, Mingchun Tang and *(Chongqing University)*, Chunli Zhang *(Guizhou Space Appliance Co., Ltd.)*, Shuhui Tao *(National University of Singapore (Chongqing) Research Institute)*, Yongxin Guo *(City University of Hong Kong)*
11:55-12:10	**[MR2-4] A Low-Cost Terahertz Antenna Array with Wideband Characteristic** Zi Long Ma and Zhi Han Zhou *(South China University of Technology)*
12:10-12:25	**[MR2-5] COTS Satellite Receiving Terminal's Antenna Measurement Practice and Analysis** Yanyan Zhang and Rodney Vaughan *(Simon Fraser University)*

Technical Program
4 August 2025 (Monday)

4 August (Monday)

Session	**[MIF1] Interactive Forum 1**
Date / Time	Monday, 4 August 2025 / 11:10 – 12:25
Venue	RM 2513, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chair	Xinxin Gao and Shitong Wang *(City University of Hong Kong)*

	[MIF1-1] Design of a Low-Cost, Compact Dual-Band Monopole Antenna for Internet of Things Equipment Ming-An Chung, Chia-Wei Lin, Chia-Chun Hsu and Zhi-Xuan Zhang *(National Taipei University of Technology)*
	[MIF1-2] An End-Fire Circularly Polarized Antenna with Small Clearance for Mobile Terminal Devices Huacheng Li and Wei Lin *(The Hong Kong Polytechnic University)*
	[MIF1-3] A Self-Decoupled MIMO Patch Array with Gain Filtering Property Junyi Lv, Fan Wu and Wu-Guang Zhao *(Southeast University)*, Yulu Hu *(University of Electronic Science and Technology of China)*
	[MIF1-4] A Full-Duplex Antenna with Embedded Rampart Microstrip Line for Improved Isolation Yinbo Yep and Yuanxin Li *(Sun Yat-sen University)*
	[MIF1-5] A Novel Decoupling Structure Using Vias in Dielectric Block for 5G Dual-Band Dual-Polarized Antenna Array Wei-kai Tang, Yi-Ming Zhang, Shao-yong Zheng and Xu Li *(Sun Yat-sen University)*
	[MIF1-6] High-Isolation Metasurface Antenna Based on Modal E-Fields Cancellation Wen-Feng Zeng, Kai-Ran Xiang, Fu-Chang Chen and Yun Wang *(South China University of Technology)*

[MIF1-7] A Broadband High-Gain Stackable Substrate-Integrated Dielectric Resonator Antenna
Mingjian Wang, Ke Han and Ze Yan *(Beijing University of Posts and Telecommunications)*

[MIF1-8] A K-Band Circular-Polarized Filtering Reflectarray by Orthogonal Phase Manipulation
Chang Fang and Xiao Zhang *(Shenzhen University)*, Yin Li *(Peng Cheng Laboratory)*, Lei Zhu *(University of Macau)*

[MIF1-9] Design of a Dual-Circularly Polarized Magnetoelectric Dipole with Gain Enhancement Based on Asymmetric Loading Structure
Junliang Lai, Zheyu Tian and Kai Xu Wang *(Harbin Institute of Technology)*

[MIF1-10] Integrated Circuit Radiation Source Reconstruction Method Based on Deep Neural Network
Jie Qin, Weimin Wang and Yongle Wu *(Beijing University of Posts and Telecommunications)*, Qingyao Zeng (*Beijing Xiaomi Mobile Software Co., Ltd.)*, Yuanan Liu *(Beijing University of Posts and Telecommunications)*

[MIF1-11] A Hybrid Framework for Magnetic Spring Localization in Capsule Robots
Xiaoyang Wu and Yuming Fu *(National University of Singapore)* and Yong-Xin Guo *(City University of Hong Kong)*

12:25 – 13:50 Lunch

Venue **City Chinese Restaurant**, 8/F, Bank of China (Hong Kong) Complex & **Faculty Lounge**, 9/F, Bank of China (Hong Kong) Complex

Technical Program
4 August 2025 (Monday)

Session **[MS5] Advanced Technologies for Wireless Power Transmission and Energy Harvesting**
Date Monday, 4 August 2025
Venue RM 2312, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizer & Chair Jun-Hui Ou *(South China University of Technology)*

13:50-14:05 **[MS5-1] Recent Research Advances in Huygens Antenna Based Wireless Power Transfer Applications (Invited)**
Wei Lin (The Hong Kong Polytechnic University)

14:05-14:20 **[MS5-2] Efficient Microwave Rectifiers with Wide Input Power Dynamic Range (Invited)**
Jun-Hui Ou and Xiu Yin Zhang *(South China University of Technology)*

14:20-14:35 **[MS5-3] Method of the Surface Wave Canceling on Large-Sized Vehicle Glass and Designing the V2X Glass Antenna (Invited)**
Huafeng Su *(Pazhou Lab)*, Zhi Xing Chen *(Fuyao Glass Industry Group Co., Ltd)*, Jun-Hui Ou and Xiu Yin Zhang *(South China University of Technology)*

14:35-14:50 **[MS5-4] A Neural Network Method with Embedded Hybrid Collective Individual Mutation Strategy for Synthesizing Isophoric Nonuniform Arrays**
Yuhan Fan *(National University of Singapore)*, Yafei Wu *(University of Electronic Science and Technology of China)*, Yongxin Guo *(City University of Hong Kong)*

14:50-15:05 **[MS5-5] Miniaturized Rectifiers with Integrated Harmonic Suppression and Matching Networks for Wireless Power Transmission and Energy Harvesting**
Baihua Zeng and Wing-Shing Chan *(City University of Hong Kong)*

Session	**[MS6] AI in Antennas and Emerging Wireless Applications**
Date	Monday, 4 August 2025
Venue	RM 2310, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs	Luyu Zhao *(Anhui University)*, Yu Luo *(Tianjin University)* and Wei Lin *(The Hong Kong Polytechnic University)*

13:50-14:05	**[MS6-1] HARFormer: WiFi-Based Human Activity Recognition with Dynamic Tanh Transformer** Jiawei Li *(King's College London)*, Meng Xu *(University of International Business and Economics)*, Zhao Huang *(Northumbria University)* and Chaoyun Song *(King's College London)*
14:05-14:20	**[MS6-2] A Machine Learning-Empowered Adaptive Self-Interference Cancellation for in-Band-Full-Duplex Base Station Antennas** Luyu Zhao and Jiebing Chan *(Anhui University)* and Xiaosheng Zhang *(Xidian University)*
14:20-14:35	**[MS6-3] CVAE-Based End-to-End Inverse Design Framework for Electromagnetic Structures (Invited)** Zhao Zhou and Wei Lin *(The Hong Kong Polytechnic University)*
14:35-14:50	**[MS6-4] Beamforming of Higher-Order Mode Compressed Antennas Based on Artificial Neural Networks (Invited)** Yu Luo, Chang Li, Shuai-Jie Duan and Yao Chen (Tianjin *University)*
14:50-15:05	**[MS6-5] AI-Assisted Far-Field Wireless Power Transmission for Supercapacitor (Invited)** Wei Lin *(The Hong Kong Polytechnic University)*

Technical Program
4 August 2025 (Monday)

4 August (Monday)

Session	**[MS7] Emerging Research Advances in Electromagnetics Led by Young Professionals in South Korea**
Date	Monday, 4 August 2025
Venue	RM 2308, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizer & Chair	Gangil Byun *(Ulsan National Institute of Science and Technology)*

13:50-14:05	**[MS7-1] Design and Implementation of a Multi-Functional M-Type Ferrite-Based Modulated Surface for Communication and Radar Systems (Invited)** Nohgyeom Ha, Soohyun Kim and Sangkil Kim *(Pusan National University)*
14:05-14:20	**[MS7-2] Ultra-Efficient and Highly Selective Wireless Power Transfer Based on Coherent Perfect Absorption in a Complex Propagation Environment** Hong Soo Park, Soo Young Oh and Sun K. Hong *(Soongsil University)*
14:20-14:35	**[MS7-3] Innovations in Fully Integrated Reconfigurable Intelligent Surfaces: From Semiconductor Fabrication to RF Design** Jinhyun Kim, Byeongjin Kim, Minkyu Park and Jungsuek Oh *(Seoul National University)*
14:35-14:50	**[MS7-4] Metasurface Designed by Active Learning** Eungkyu Lee *(Kyung Hee University)*
14:50-15:05	**[MS7-5] Ocean Wind Waves Surface Roughness Modeling and SAR Clutter Characterization Under Varying Sea States Using Inverese Backscattering Method** Iman Heidarpour Shahrezaei and Dong-Wook Seo *(National Korea Maritime and Ocean University)*

Session **[MS8] Recent Advances in Metasurfaces for Complex Wave Propagation, Radiation, and Conversion**
Date Monday, 4 August 2025
Venue RM 2306, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizer & Chair Menglin Chen *(The Hong Kong Polytechnic University)*

13:50-14:05 **[MS8-1] Multi-Parameter Correlated Manipulation of Electromagnetic Waves Based on Guided-Wave Metasurfaces (Invited)**
Yunhao Jiao, Hongyu Shi and Xiaoming Chen (Xi'an Jiaotong University)

14:05-14:20 **[MS8-2] Millimeter-Wave Leaky-Wave Antenna Based on Topological Heterostructure (Invited)**
Zihao Yu, Hai Lin and Rui Zhou *(Central China Normal University)*

14:20-14:35 **[MS8-3] A Broadband Frequency Selective Rasorber with Switchable Absorption and Transmission Characteristics (Invited)**
Weixi Xu and Kaili Wei *(Xidian University)*, Dongmeng Li and Hao Gu *(Shanghai Radio Equipment Research Institute)*, Bian Wu *(Xidian University)*

14:35-14:50 **[MS8-4] Experimental Demonstration of the TE-TM Mode Degeneracy in Dielectric Metasurfaces**
Rui Li *(Jilin University)*, Sergey Yu Polevoy *(O. Ya. Usikov Institute for Radiophysics and Electronics of National Academy of Sciences of Ukraine)*, Oleh Yermakov *(V. N. Karazin Kharkiv National University)* and Vladimir R. Tuz *(Jilin University)*

Technical Program
4 August 2025 (Monday)

4 August (Monday)

Session **[MR3] Antenna Theory, Design, and Applications 2**
Date Monday, 4 August 2025
Venue RM 2614, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs Zi Long Ma *(South China University of Technology)* and Jingtao Zeng *(Guangdong Shenglu Telecommunication Technology Co., Ltd.)*

13:50-14:05 **[MR3-1] System-in-Antenna (SiA): A Compact Architecture for Integrated RF and Thermal Management (Invited)**
Li Chen, Huawei Lin, Lei Ge and Junfa Mao *(Shenzhen University)*

14:05-14:20 **[MR3-2] A 2.4 GHz/5.8 GHz Dual-Band Shared-Aperture Antenna for WiFi Applications**
Zi Long Ma and Hao Feng Peng *(South China University of Technology)*

14:20-14:35 **[MR3-3] A Extremely Low Side Lobe Cassegrain Antenna for Microwave Backhaul Application**
Jingtao Zeng and Jianlin Li *(Guangdong Shenglu Telecommunication Technology Co., Ltd.)*, Xin Dai *(Guangzhou University)*, Wen Ding *(Guangdong Shenglu Telecommunication Technology Co., Ltd.)*, Jun-Hui Ou *(South China University of Technology)* and Hua Yang *(Guangdong Shenglu Telecommunication Technology Co., Ltd.)*

14:35-14:50 **[MR3-4] Design and Applications of a Low-Cost Phase-Amplitude Reconfigurable Array Antenna**
Zheng Xing Wang and Kwai-Man Luk *(City University of Hong Kong)*

14:50-15:05 **[MR3-5] Performance Evaluation of Magneto-Electric Monopole Antenna**
Shunta Nakamura, Takeshi Fukusako and Ryuji Kuse *(Kumamoto University)*

Session	**[MIF2] Interactive Forum 2**
Date / Time	Monday, 4 August 2025 / 13:50 – 15:05
Venue	RM 2513, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chair	Xiaoyue Xia and Chenfeng Yang *(City University of Hong Kong)*

[MIF2-1] A Dual Polarized Luneburg Lens Antenna for mmW Multibeam Communication System
Chunling Qi and Kwai-Man Luk *(City University of Hong Kong)*

[MIF2-2] Multiple Strip Planar Antenna with Broad Beams in both E- and H- Planes
Ling-Hao Xu, Zheng Fang, Bin Gong, Kai Lu and Nan Yang *(Sun Yat-sen University)*

[MIF2-3] Design of a Wide-band IBFD Circularly Polarized Antenna
Zi-Qi Feng, Zhi-Hong Tu and Fu-Chang Chen *(South China University of Technology)*

[MIF2-4] Design of a Flexible Ultra-Thin Wearable Frostbite High-Precision Warning System (Invited)
Baixiang Xu *(University of Southampton)*, Jinyao Zhang *(Shenzhen University)*, Wenzhang Zhang, Eng Gee Lim, Bintao Hu and Rui Pei *(Xi'an Jiaotong-Liverpool University)*

[MIF2-5] Safety Detection Using Convolutional Neural Network and Dual-Polarized Miniaturized Antennas Integrated in Metal Carabiner
Ziqian Tan, Zhixi Liang, Wenqi Yan, Hongyan Jiang and Shaoyong Zheng *(Sun Yat-sen University)*

Technical Program
4 August 2025 (Monday)

4 August (Monday)

[MIF2-6] Development of a UWB Antenna for Detection of Bone Cancer Using a Non-Invasive Microwave Imaging Method
Tarun Panwar and Hari Shankar Singh and Vishal Srivastava *(Thapar Institute of Engineering and Technology)* and Asit Ranjan Mridha *(All India Institute of Medical Sciences)*

[MIF2-7] Hybrid Wireless Power Transfer for Implantable Medical Device: Comparison of Coupling Methods
Miyu Kodama and Dairoku Muramatsu *(The University of Electro-Communications)*

[MIF2-8] A Parallelized Shooting and Bouncing Ray Method based on MPI for Targets with Arbitrary Materials
Yi Zhu, Gao Wei and Jianzhou Li *(Northwestern Polytechnical University)*

[MIF2-9] Geometric Measures for Information Geometry Detectors in Sea Clutter Environments
Xu Pan, Wu Hao, Yongqiang Cheng, Xiaoqiang Hua, Zheng Yang, Kang Liu and Hongqiang Wang *(National University of Defense Technology)*

[MIF2-10] Radar Weak Target Detection Based on Deep Convolutional Feature Manifold Network
Zhonghao Wan, Xiaoqiang Hua, Yongqiang Cheng, Wu Hao, Kang Liu and Bin Deng *(National University of Defense Technology)*

[MIF2-11] Matrix Information Geometry Detector for Ship Target Detection in SAR Images
Shengkai Zhang, Wu Hao and Yongqiang Cheng, Xiaoqiang Hua, Zheng Yang, Kang Liu and Hongqiang Wang *(National University of Defense Technology)*

15:05 – 15:20 Tea Break

Technical Program
4 August 2025 (Monday)

Session	**Innovation Series of Distinguished Scientists**
Date	Monday, 4 August 2025
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair	Shao Yong Zheng *(Sun Yat-sen University)*

15:20-15:50	**Wideband / Reconfigurable Millimeter-Wave Integrated Circuits and Antennas for Phase Array Application** Xiuyin Zhang *(South China University of Technology)*
15:50-16:20	**Antenna-on-Display using Traveling-wave mode for Integrated Sensing and Communication (ISAC) for mobile platforms** Wonbin Hong *(Pohang University of Science and Technology)*
16:20-16:50	**Multi-Mode Multi-Port Antennas with Polarization- and Pattern-Diversity** Ying Liu *(Xidian University)*
16:50-17:20	**Millimeter-Wave Wideband Complementary Source Antenna Arrays** Yujian Li *(Beijing Jiaotong University)*
18:00–20:00	Welcoming Reception
Venue	**Amaroni's New York Italian Restaurant & Cafe** LG1-32 Festival Walk, 80 Tat Chee Avenue, Kowloon Tong, Kowloon

Technical Program
5 August 2025 (Tuesday)

Session	**[TS1] Artistic Innovations in Multifunctional Antennas: Reconfigurable Designs and Metasurfaces for Next-Generation Communication and Sensing**
Date	Tuesday, 5 August 2025
Venue	RM 3614, 3/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs	Kwok L. Chung (Guangzhou Institute of Science and Technology), Botao Feng (Shenzhen University) and Shiquan Wang (Nanyang Technological University)

8:30-8:45	**[TS1-1] A Single-Layer Dual-Polarized High-Gain Microstrip Patch Antenna** Xi Wu and Botao Feng *(Shenzhen University)*, Xiao Ding *(Macau University of Science and Technology)*, Sanshan Sun *(Sichuan Normal University)*, Li Deng *(Beijing University of Posts and Telecommunications)* and Kwok L. Chung *(Guangzhou Institute of Science and Technology)*
8:45-9:00	**[TS1-2] A Broadband Dual-polarized Magneto-electro-dipole Antenna Applicable to 2G/3G Applications** Lulin Sun and Botao Feng *(Shenzhen University)*, Xiao Ding *(Macau University of Science and Technology)*, Li Deng *(Beijing University of Posts and Telecommunications*), Wenzhe Gu *(Huizhou University)* and Kwok L. Chung *(Guangzhou Institute of Science and Technology)*
9:00-9:15	**[TS1-3] Mutual Coupling Suppression of LiShu Guo-MIMO Antenna Arrays Using Dielectric Embedding** Yilin Hou and Kwok L. Chung *(Guangzhou Institute of Science and Technology)*, Caiying Li *(Huizhou University)*, Xueyi Lin, You Yang, Yirong Wu, Weibiao Yi and Minghao Huang *(Guangzhou Institute of Science and Technology)*
9:15-9:30	**[TS1-4] Enhancing Patch Antenna Performance with Metasurfaces: Beam and Polarization Reconfigurability (Invited)** Wei-Hua Zong *(Qingdao University)*

Session **[TS2] Decoupling Technology in the New Generation Wireless Communication System**
Date Tuesday, 5 August 2025
Venue RM 2312, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Kai Xu *(Nantong University)* and Chen Yang *(Beijing Institute of Technology)*

8:30-8:45 **[TS2-1] A Coplanar Tri-Polarized Decoupled Antenna for Multi-Input-Multi-Output Applications**
Zidan Qin, Chen Yang, Weidong Hu, Bin Li and Guiping Lu *(Beijing Institute of Technology)*, Dayi Lin and Tengfei Li (*Shenzhen Institute of Radio Testing and Tech)*, Lejian Guan *(Beijing Institute of Technology)*

8:45-9:00 **[TS2-2] Independently Controllable Hybrid-Designed Transparent Antenna for Shared-Aperture Array**
Ling-ling Yang, Xiao-Fan Wang, Xing Xie, Kai Xu, Wen-Wen Yang and Jian-Xin Chen *(Nantong University)*

9:00-9:15 **[TS2-3] A Low-profile filtering circular dielectric patch antenna for cross-band decoupling**
Rong Cai *(Jiangsu College of Engineering and Technology)*, Yangguang Dou, Shiwei Wang and Kai Xu *(Nantong University)*

9:15-9:30 **[TS2-4] Experimental Analysis of Interference Between 920 MHz WPT and Passive UHF-RFID Systems (Invited)**
Takamichi Horikawa, Ryosuke Kumagai, Naoto Kodate and Yuji Tanabe *(Aeterlink Corp.)*

9:30-9:45 **[TS2-5] Near-Field Mutual Coupling Suppression in Sub-Wavelength MIMO Janus Antenna**
Bo Xue and Alex M. H. Wong *(City University of Hong Kong)*

Technical Program
5 August 2025 (Tuesday)

5 August (Tuesday)

Session **[TS3] Novel GaN Power Amplifier Techniques for Various Applications**
Date Tuesday, 5 August 2025
Venue RM 2310, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizer & Chair Xinyu Zhou *(The Hong Kong Polytechnic University)*

8:30-8:45 **[TS3-1] A 24-28 GHz Broadband Doherty Power Amplifier MMIC Based on GaN HEMT Technology for Millimeter-Wave Applications**
Yujie Han, Jingzhou Pang, Ruibin Gao, Shuang Liu and Yi Zhang *(Chongqing University)*

8:45-9:00 **[TS3-2] Design of High Efficiency High Back-off Doherty Power Amplifier Based on Hybrid Optimization**
Jinqi Li, Heng Zhang, Wenya Liu and Hui Ma *(Jiangsu University)*, Xinyu Zhou *(The Hong Kong Polytechnic University)* and Jing Xia *(Jiangsu University)*

9:00-9:15 **[TS3-3] Investigation and Design of a Ka-band GaN MMIC Power Amplifier with Miniaturized Chip Area**
Haoni Dong and Xiaohu Fang *(Southern University of Science and Technology)*

9:15-9:30 **[TS3-4] Dual-Band Doherty Power Amplifier with Extended Back-off Range Using Input Phase Control**
Zeng Yan Chen, Fu Cheng Yuan, Yi-Ming Zhang and Shao Yong Zheng *(Sun Yat-sen University)*

9:30-9:45 **[TS3-5] Tuning Space Mapping Based Design of High-Performance Doherty Power Amplifier MMIC**
Zhuocheng Tian *(National University of Singapore)*, Xu Yan, Jingyuan Zhang and Yongxin Guo *(City University of Hong Kong)*

Session **[TS4] Recent Developments of Array Antennas: Time Modulation, Spatial Beam Scanning and New Applications**
Date Tuesday, 5 August 2025
Venue RM 2308, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Peng-Fa Li *(University of Electronic Science and Technology of China)*, Xue Ren *(Shenzhen University)* and Jianfeng Zhu *(South China University of Technology)*

8:30-8:45	**[TS4-1] Shared-Aperture Beam-Scanning Array Antenna for Satellite Communication at Ku/Ka Band (Invited)** Zhishu Qu, Xingchen Liu and Yue Gao *(Fudan University)*
8:45-9:00	**[TS4-2] Reflectarray Near Field Analysis Based on Array Scattering Matrix** Peng-Fa Li and Shi-Wei Qu *(University of Electronic Science and Technology of China)*
9:00-9:15	**[TS4-3] Heterogeneous Phased Array Antenna with Beam-Splitting Lens for Wide-Angle Scanning** Kangna Zhang and Xue Ren *(Shenzhen University)*
9:15-9:30	**[TS4-4] 3D Printed Metal-Only Millimeter-Wave Transmitarray Antennas (Invited)** Jianfeng Zhu *(South China University of Technology)*
9:30-9:45	**[TS4-5] A Compact Distributed Filtering Folded Reflectarray Antenna Based on Discrete Curved Surface** Yu-Hao Ding, Kai-Xu Wang and Zhi-Tao Du *(Harbin Institute of Technology)*

Technical Program
5 August 2025 (Tuesday)

5 August (Tuesday)

Session **[TR1] Metameterials/Metasurfaces**
Date Tuesday, 5 August 2025
Venue RM 2306, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs Yasutaka Murakami *(The University of Electro-Communications)* and Shaoxin Huang *(City University of Hong Kong)*

8:30-8:45	**[TR1-1] Research on Transmissive Metasurfaces with Nonreciprocal Characteristics** Yasutaka Murakami *(The Unversity of Electro-Communications)*
8:45-9:00	**[TR1-2] A Self-adaptive Metasurface for DoA detection and Normal Reflection (Invited)** Bo-Wen Ren, Xiaoluo He and Alex M. H. Wong *(City University of Hong Kong)*
9:00-9:15	**[TR1-3] A Low-Profile Water-Based Absorber for Large Angle Oblique Incidence** Wenqi Yan, Zhixi Liang and Ziqian Tan, Hongyan Jiang and Shaoyong Zheng *(Sun Yat-sen University)*
9:15-9:30	**[TR1-4] A Flexible Metasurface for MRI Enhancement Based on Flexible Electronic Printing Technology** Qing Dong Cai and Xiaojian Fu *(Southeast University)*
9:30-9:45	**[TR1-5] Phase-Correcting Metasurface for Sidelobe Suppression in Fabry-Pérot Cavity Antennas with Spherical Ground** Tayyab Ali Khan and Alex M. H. Wong *(City University of Hong Kong)*

Session **[TIF1] Interactive Forum 3**
Date / Time Tuesday, 5 August 2025 / 8:30 – 9:45
Venue RM 2513, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs Kin-Fai Tong *(Hong Kong Metropolitan University)* and Ka Fai Chan *(City University of Hong Kong)*

[TIF1-1] A D-Band Circularly Polarized Magnetoelectric Dipole Array Using Rectangular Micro-Coaxial Line
Qinlong Li, Xinrui Zhong, Xiaoming Chen and Cheng Guo, Guanghua Shi and Hongyu Shi *(Xi'an Jiaotong University)*

[TIF1-2] A Machine Learning-Empowered Adaptive Self-Interference Cancellation for in-Band-Full-Duplex Base Station Antennas
Luyu Zhao and Jiebing Chan *(Anhui University)* and Xiaosheng Zhang *(Xidian University)*

[TIF1-3] Multibeam Pattern Synthesis Techniques for 5G and Beyond Wireless Communications
Ming Li, Shu-Lin Chen and Y. Jay Guo *(University of Technology Sydney)*

[TIF1-4] Computational Human Skin Model for 5G Electromagnetic Field Exposure Studies
Ruben Otin and Eduardo Soudah *(International Center for Numerical Methods in Engineering)*, Gaetano Chirico and Fulvio Schettino *(University of Cassino and Southern Lazio)* and Noa Betzalel *(The Hebrew University of Jerusalem)*

[TIF1-5] A Wideband Miniaturized Millimeter-Wave Fabry-Perot Cavity Antenna with Simplified Structure Enable by Dielectric-Filled-Shape-Cavity
Runcong Lv and Qing-Yi Guo *(Shenzhen University)*

Technical Program
5 August 2025 (Tuesday)

5 August (Tuesday)

[TIF1-6] A Broadband Filtering Multimode-Composite Antenna
Duoyu Lv, Yujian Li and Junhong Wang *(Beijing Jiaotong University)*

[TIF1-7] A Novel ISAR Multi-Target Separation and Imaging Algorithm Based on Radon Transform and RPCA
Xiaoyu Qin, Yihang Tang, Jun Yi, Bin Deng, Hongqiang Wang and Chenggao Luo *(National University of Defense Technology)*

[TIF1-8] A Wideband via-Free Magneto-Electric Dipole Antenna Array with High Aperture Efficiency
Jianhui Huang and Kwai-Man Luk *(City University of Hong Kong)*

[TIF1-9] Millimeter-Wave Frequency Reconfigurable Reflectarray Antenna Based on Germanium Telluride Film
Jinghao Li and Wanchen Yang *(Nanjing University of Aeronautics and Astronautics)*, Zhuo Dong and Kai Zhang *(Suzhou Institute of Nano-Tech and Nano-Bionics Chinese Academy of Sciences)*, Wenquan Che *(South China University of Technology)*, Shilong Pan *(Nanjing University of Aeronautics & Astronautics)*

[TIF1-10] Miniaturized Single-Layer Filtering Patch Antenna with Enhanced Gain and Bandwidth
Yue-Hua Wang and Peng Fei Hu *(Sun Yat-sen University)*, Kwok Wa Leung *(City University of Hong Kong)*

[TIF1-11] Design of SIW Rotman Lens Multibeam Antenna with Broadband Termination Connecting to Back SIW in 300-GHz Band
Koki Shikano, Kenta Nishimura, Azuki Iwamoto, Kunio Sakakibara, Yoshiki Sugimoto and Nobuyoshi Kikuma *(Nagoya Institute of Technology)*

[TIF1-12] Automatic Design of Power Amplifier Based on Machine-Learning-Assisted Optimization
Zeteng Zhang, Qi Wu, Haiming Wang and Guangyi Lu (Southeast University), Pengjun Li and Ruoshui Zhou *(ZTE Corporation)*

[TIF1-13] A Broadband Frequency Selective Rasorber with Switchable Absorption and Transmission Characteristics
Weixi Xu and Kaili Wei *(Xidian University)*, Dongmeng Li and Hao Gu *(Shanghai Radio Equipment Research Institute)*, Bian Wu *(Xidian University)*

[TIF1-14] Miniaturized Rectifiers with Integrated Harmonic Suppression and Matching Networks for Wireless Power Transmission and Energy Harvesting
Baihua Zeng and Wing-Shing Chan *(City University of Hong Kong)*

[TIF1-15] Adaptively Reconfigurable Intelligent Surface for Integrated Sensing and Communication Scenario
Han Qing Yang *(Southeast University)*, Hui Dong Li *(The Hong Kong Polytechnic University)*, Jun Yan Dai, Qiang Cheng and Tie Jun Cui *(Southeast University)*

[TIF1-16] A K-Band Circular-Polarized Filtering Reflectarray by Orthogonal Phase Manipulation
Chang Fang and Xiao Zhang *(Shenzhen University)*, Yin Li *(Peng Cheng Laboratory)*, Lei Zhu *(University of Macau)*

9:45–10:00 Tea Break

Technical Program
5 August 2025 (Tuesday)

Plenary Session 4

Date / Time Tuesday, 5 August 2025 / 10:00 - 10:40
Venue Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair Wei Lin *(The Hong Kong Polytechnic University)*

Practical Superdirectivity - Back to the Future
Richard W. Ziolkowski
The University of Arizona

Plenary Session 5

Date / Time Tuesday, 5 August 2025 / 10:40 - 11:20
Venue Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair Wei Lin *(The Hong Kong Polytechnic University)*

6G Upper Mid-Band Device MIMO Communications: Extreme Receive Antennas-Aided MIMO and Modular MIMO antennas
Kin-Lu Wong
National Sun Yat-sen University

Plenary Session 6

Date / Time Tuesday, 5 August 2025 / 11:20 - 12:00
Venue Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair Wei Lin *(The Hong Kong Polytechnic University)*

Terahertz Transceiver for 6G Systems
Arokiaswami Alphones
Nanyang Technological University

Lunch

Time 12:00 – 13:20
Venue City Chinese Restaurant, 8/F, Bank of China (Hong Kong) Complex & Faculty Lounge, 9/F, Bank of China (Hong Kong) Complex

5 August (Tuesday)

Session **[TS5] Advanced Antenna and RF Component Designs for Millimeter-Wave and Terahertz Applications**

Date Tuesday, 5 August 2025

Venue RM 3614, 3/F, Li Dak Sum Yip Yio Chin Academic Building

Organizers & Chairs Jianxing Li *(Xi'an Jiaotong University)*, Yingsong Li *(Anhui University)* and Yuanxi Cao *(Xi'an Jiaotong University)*

13:20-13:35 **[TS5-1] THz Multi-Frequency-Scanning-Beam Antenna Based on Copper Additive Manufacturing**
Yuanxi Cao, Wencheng Hou, Jianxi Gao, Sifan Wu, Jianxing Li and Sen Yan *(Xi'an Jiaotong University)*

13:35-13:50 **[TS5-2] Multifunctional Periodic Structures and Arrays for Millimeter-Wave and Terahertz Applications (Invited)**
Longzhu Cai, Pu Luo, Jianjing Zhou, Jiaqi Zhou, Zhi Hao Jiang and Wei Hong *(Southeast University)*

13:50-14:05 **[TS5-3] Circularly Polarized Wearable Antenna Based on AMC Structure for WBAN Applications (Invited)**
Lihua Wang and Changjiao Duan *(Harbin Engineering University)*, Baofeng Cao and Peng Li *(State Key Laboratory of Chemistry for NBC Hazards Protection)*, Yingsong Li *(Anhui University)*, Adrian Bekasiewicz *(Gdansk University of Technology)*

14:05-14:20 **[TS5-4] Design of a Broadband Circularly Polarized Wearable Antenna Based on Flexible Materials**
Lihua Wang and Changjiao Duan *(Harbin Engineering University)*, Baofeng Cao and Peng Li *(State Key Laboratory of Chemistry for NBC Hazards Protection)*, Yingsong Li *(Anhui University)*, Adrian Bekasiewicz *(Gdansk University of Technology)*

Technical Program
5 August 2025 (Tuesday)

5 August (Tuesday)

Session **[TS6] Advances in Wideband and Beam-scanning Antenna Arrays for Radar and Wireless Communication Systems**

Date Tuesday, 5 August 2025

Venue RM 2312, 2/F, Li Dak Sum Yip Yio Chin Academic Building

Organizers & Chairs Yujian Li *(Beijing Jiaotong University)*, Zhi Hao Jiang *(Southeast University)* and Fan Wu *(Southeast University)*

13:20-13:35 **[TS6-1] A Broadband Filtering Multimode-Composite Antenna (Invited)**
Duoyu Lv, Yujian Li and Junhong Wang *(Beijing Jiaotong University)*

13:35-13:50 **[TS6-2] Optically Transparent Dual-Polarized Transmissive Magnitude-Tunable Frequency Selective Surface Based on Liquid Crystal**
Wu-Guang Zhao *(Southeast University)*, Jingxue Wang *(Hohai University) and Fan Wu (Southeast University)*

13:50-14:05 **[TS6-3] Low-Profile, High-Gain, Wide-Angle, High-Resolution Electrically Addressable Folded Array Antenna**
Peng Wang, Xiaojian Fu and Yujie Liu *(Southeast University)*

14:05-14:20 **[TS6-4] A Novel Approach: Achieving More than ±90° Half-Power Beam Coverage in Millimeter-Wave Antenna Arrays**
Yuqi He and Wei Lin *(The Hong Kong Polytechnic University)*, Luyu Zhao (Anhui University) and J. C. Vardaxoglou *(South China University of Technology)*

Session **[TS7] Advances of Artificial Intelligence in Microwave Device Optimization**
Date Tuesday, 5 August 2025
Venue RM 2310, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Qi Wu *(Southeast University)* and Jinxin Li *(Hunan University)*

13:20-13:35 **[TS7-1] Automatic Design of Power Amplifier Based on Machine-Learning-Assisted Optimization**
Zeteng Zhang, Qi Wu, Haiming Wang and Guangyi Lu *(Southeast University)*, Pengjun Li and Ruoshui Zhou *(ZTE Corporation)*

13:35-13:50 **[TS7-2] An Efficient Optimization Method for Microwave Sensors based on Pixelation Design and a Convolutional Neural Network**
Jinghong Wang, Jinxin Li and Pei Xiao *(Hunan University)*

13:50-14:05 **[TS7-3] A Data Augmentation Method for Antenna Optimization**
Jinghong Wang, Jinxin Li and Pei Xiao *(Hunan University)*

14:05-14:20 **[TS7-4] Deep Learning-Assisted Design of Microwave Absorbers with Bidirectional Impedance Gradient Matching**
Fan Wang, Miaoshen Liang, Ye Han *(Nanjing University of Posts and Telecommunications)*, Wenquan Che *(South China Unviersity of Technology)*

Session **[TS8] High-Gain Millimeter-Wave Reconfigurable Antennas**
Date Tuesday, 5 August 2025
Venue RM 2308, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Xujun Yang *(Anhui Agricultural University)* and Jun Hu *(Hefei University of Technology)*

13:20-13:35 **[TS8-1] Design of Dual-Polarized Electrically Reconfigurable Antenna Based on Balanced Feed Structure**
Jie WU, Min Fan and Meng Kong *(Hefei Normal University)*

13:35-13:50 **[TS8-2] High-Gain Polarization Reconfigurable Magneto-Electric Dipole Antenna for Millimeter-Wave Applications (Invited)**
Xujun Yang *(Anhui Agricultural University)*, Jun Hu *(Hefei University of Technology)* and Xiaobo Zhou *(Anhui Agricultural University)*

13:50-14:05 **[TS8-3] Broadband Millimeter Wave Two-dimensional Beam Scanning Transmistarray Based on Quad-focal Phase Re-optimization (Invited)**
Zhen Yang, Chenglong Wang and Jun Hu *(Hefei University of Technology)*

14:05-14:20 **[TS8-4] Millimeter-wave Frequency Reconfigurable Reflectarray Antenna Based on Germanium Telluride Film**
Jinghao Li and Wanchen Yang *(Nanjing University of Aeronautics and Astronautics)*, Zhuo Dong and Kai Zhang *(Suzhou Institute of Nano-Tech and Nano-Bionics Chinese Academy of Sciences)*, Wenquan Che *(South China University of Technology)*, Shilong Pan *(Nanjing University of Aeronautics & Astronautics)*

Session **[TS9] Innovative Technologies in Transmitarray/Lens Antennas and RISs for 6G Systems**

Date Tuesday, 5 August 2025

Venue RM 2306, 2/F, Li Dak Sum Yip Yio Chin Academic Building

Organizers & Chairs Ming Li *(University of Technology Sydney)*, Yubo Wen *(University of Technology Sydney)* and Peiyuan Qin *(University of Technology Sydney)*

13:20-13:35 **[TS9-1] Multibeam Pattern Synthesis Techniques for 5G and Beyond Wireless Communications**
Ming Li, Shu-Lin Chen and Y. Jay Guo *(University of Technology Sydney)*

13:35-13:50 **[TS9-2] Synthesis of Dual-Band Filtering Responses with Wideband Characteristics**
Shidi Liu *(University of Macau)*, Tianyu Yang *(Shenzhen Institutes of Advanced Technology Chinese Academy of Sciences)*, Pedro Cheong *(University of Macau)*

13:50-14:05 **[TS9-3] GRIN Lens Antenna Array with Suppressed Side Lobes**
Yubo Wen, Peiyuan Qin and Jay Guo *(University of Technology Sydney)*

14:05-14:20 **[TS9-4] A Sensor-Integrated Reconfigurable Intelligent Surface for Smart Electromagnetic Environment**
Youngno Youn *(Incheon National University)*, Daehyeon Kim, Donggeun An and Wonbin Hong *(Pohang University of Science and Technology)*

Technical Program
5 August 2025 (Tuesday)

5 August (Tuesday)

Session **[TS10] Rohde and Schwarz Session**

Date Tuesday, 5 August 2025

Venue RM 2614, 2/F, Li Dak Sum Yip Yio Chin Academic Building

Organizers & Chairs Jian Wang *(Rohde & Schwarz Hong Kong Ltd)*

13:20-13:50 **[TS10-1] Sub-THz Communication Test Challenges and Solutions (Invited)**
Jian Wang *(Rohde & Schwarz Hong Kong Ltd)*

13:50-14:20 **[TS10-2] Noval Spectrum Analyzer Design to Empower mmWave Test (Invited)**
Jian Wang *(Rohde & Schwarz Hong Kong Ltd)*

Session	**[TIF2] Interactive Forum 4**
Date / Time	Tuesday, 5 August 2025 / 13:20 – 14:20
Venue	RM 2513, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs	Zi-Jun Guo *(City University of Hong Kong)*

[TIF2-1] Characteristics of near-Field to near-Field and near-Field to far-Field Transformation for Wideband Radiation Source Antenna in FDTD Method
Kyoya Inakawa and Takuji Arima *(Tokyo University of Agriculture and Technology)*

[TIF2-2] Analysis of Static IR Drop Using Equivalent Circuit Modeling
Lijiang Lin, Tingting He, Kanglong Zhang, Peng Zhao, Shichang Chen, Kuiwen Xu and Gaofeng Wang *(Hangzhou Dianzi University)*

[TIF2-3] Azimuth-Elevation 2D Angle Estimation Method with Electromagnetic Vortex
Zhengkuan Tan, Hongyan Liu, Kang Liu, Yongqiang Cheng, Hao Wu and Hongqiang Wang *(National University of Defense Technology)*

[TIF2-4] A Beam-Steerable Antenna for Wide-Angle Beam-Scanning Phased Array
Wen Li, Honghao Zhang, Jian Ren and Yingzeng Yin *(Xidian University)*

[TIF2-5] Impact of Core Geometry on Magnetic Forces in Electromagnetic Coil Systems
Yuxin Yang and William S.P. Robertson *(The University of Adelaide)*, Azadeh Jafari *(The University of Queensland)* and Maziar Arjomandi *(University of Adelaide)*

Technical Program
5 August 2025 (Tuesday)

5 August (Tuesday)

[TIF2-6] Compact and High-Sensitivity Sub-THz Antenna Sensor for Non-Contact Permittivity Characterization
Shiquan Wang and Ben Sun *(Nanyang Technological University)*, Kwok L. Chung *(Guangzhou Institute of Science and Technology)* and Jing Sun *(Shandong Vocational College of Industry)*

[TIF2-7] QR Iteration-Based Multiple Signal Classification Algorithm for Unexploded Ordnance Imaging
Lele Zhang *(Xi'an University of Science and Technology)*, Pengxiang Li *(Shaanxi Yanchang Petroleum Balasu Coal Industry Co., Ltd.)*, Yuanguo Zhou *(Xi'an University of Science and Technology)* and Qiang Ren *(Beihang University)*

[TIF2-8] Design of SIW Endfire Antenna Phased Array with Interpolating Element for Grating-Lobe Suppression in 300-GHz Band
Daisuke Sakai, Yoshiki Sugimoto and Kunio Sakakibara *(Nagoya Institute of Technology)*, Ken Takahashi *(Panasonic System Networks R&D Lab. Co., Ltd.)*, Nobuyoshi Kikuma *(Nagoya Institute of Technology)*

[TIF2-9] An Electromagnetic Positioning Method Based on the Magnetic Dipole Model
Sikai Li, Zhicheng Yang and Guangfu Wang *(Northwestern Polytechnical University)*

[TIF2-10] Single-Band and Dual-Band Dielectric Waveguide Bandpass Filters
Yu-Ke Zhou, Wei Qin and Jian-Xin Chen *(Nantong University)*

14:20–14:35 Tea Break

Technical Program
5 August 2025 (Tuesday)

Session	**Innovation Series of Distinguished Young Scholars**
Date	Tuesday, 5 August 2025
Venue	Joseph Lee Hall (RM 3505), Li Dak Sum Yip Yio Chin Academic Building
Chair	Fu-Chang Chen *(South China University of Technology)*

14:35-15:05	**Millimeter-Wave/Terahertz CMOS Multipliers with High Efficiency and Wide Bandwidth** Sanming Hu *(Southeast University)*
15:05-15:35	**Origami Deployable Reflectarray Antennas for Small Satellites** Takashi Tomura *(Institute of Science Tokyo)*
15:35-16:05	**A Dual-polarized mmWave Mono-pulse Radar Antenna with 3D Tracking Capability Using GWG Techniques** Xiaoming Chen *(Xi'an Jiaotong University)*
16:05-16:35	**Backscatter-Modulated Millimeter-Wave Tags for Enhanced Multi-Target Detection and Clutter Suppression** Gangil Byun *(Ulsan National Institute of Science and Technology)*
18:30–21:00	Banquet
Venue	**Hong Kong Gold Coast Hotel**, 1 Castle Peak Road, Hong Kong

Technical Program
6 August 2025 (Wednesday)

Session	**[WS1] Emerging Trends in Metamaterials and Antenna Engineering**
Date	Wednesday, 6 August 2025
Venue	RM 3614, 3/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs	Huangyan Li and Xiang Wang *(Nanjing University of Science and Technology)*

9:00-9:15	**[WS1-1] Hybrid Active and Microfluidic Modulated Reconfigurable Frequency Selective Surface** Wei Tang, Huangyan Li, Shuosheng Liu, Liping Yang, Xiang Wang, Jun Hu and Wen Wu *(Nanjing University of Science and Technology)*
9:15-9:30	**[WS1-2] Broadband Circularly Polarized Phased Array and Van Atta Retrodirective Array** Shuai Zhu, Xiang Wang, Jun Hu, Huangyan Li, Boyu Sima and Wen Wu *(Nanjing University of Science and Technology)*
9:30-9:45	**[WS1-3] Calibration for Multibeam Time-Modulated Array Antenna with Low Sidelobe Levels (Invited)** Qiaoyu Chen *(Nanjing Normal University)*, Changjin Xin, Zhengjie Feng and Jin-Dong Zhang *(Nanjing University of Science and Technology)*, Gang Zhang *(Nanjing Normal University)*
9:45-10:00	**[WS1-4] An Ultra-Low Profile Metasurface for Enhanced Non-Diffractive OAM Beam Generation Based on Sparse Feed Array** Jinyang Bi and Fan Qin *(Xidian University)*, Chao Gu *(Queen's University Belfast)*, Hailin Zhang and Wenchi Cheng *(Xidian University)*
10:00-10:15	**[WS1-5] Adaptively Reconfigurable Intelligent Surface for Integrated Sensing and Communication Scenario (Invited)** Han Qing Yang *(Southeast University)*, Hui Dong Li *(The Hong Kong Polytechnic University)*, Jun Yan Dai, Qiang Cheng and Tie Jun Cui *(Southeast University)*

Session **[WS2] High Power Terahertz Structures and Devices**
Date Wednesday, 6 August 2025
Venue RM 2312, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Shaomeng Wang *(University of Electronic Science and Technology of China)* and Fei Shen *(Dongguan University of Technology)*

9:00-9:15 **[WS2-1] Design and Simulation of Electron Gun for Terahertz Region**
Ullah Tasir, Shaomeng Wang, Muhammad Khawar Nadeem, Bilawal Ali, Atif Jameel, Lixia Yang and Patibandla Anilkumar *(University of Electronic Science and Technology of China)*

9:15-9:30 **[WS2-2] Klopfenstein-Tapered Vlasov Antenna for THz Mode Conversion: Design and Comparative Study**
Atif Jameel, Zhanliang Wang, Shaomeng Wang, Jibran Latif, Muhammad Khawar Nadeem, Bilawal Ali, Patibandla Anilkumar and Yubin Gong *(University of Electronic Science and Technology of China)*

9:30-9:45 **[WS2-3] Reliability of nm-Scale Dielectric Coatings for Multipactor Suppression in Resonant Cavities**
Muhammad Khawar Nadeem, Lixia Yang, Atif Jameel, Patibandla Anilkumar, Jibran Latif and Bilawal Ali *(University of Electronic Science and Technology of China)*, Asif Mehmood Khan *(Capital University of Science and Technology)* and Yubin Gong *(University of Electronic Science and Technology of China)*

9:45-10:00 **[WS2-4] Dual-Band Beamfocusing Method Based on Metasurface Antenna Integrated with Silicon Waveguide**
Shenyang Zhou, Haoxiang Chen, Fei Shen and Yang Yang *(Dongguan University of Technology)*

10:00-10:15 **[WS2-5] An Efficient Optimization Method for Helix Slow Wave Structure Based on Surrogate Models**
Chen Zhao and Wangqi Liu *(Nanjing University of Information Science and Technology)*

Technical Program
6 August 2025 (Wednesday)

Session **[WS3] Innovative Multifunctional Filtering Devices: from Microwave to THz**
Date Wednesday, 6 August 2025
Venue RM 2310, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Hao-Tao Hu *(Sun Yat-sen University)*, Qing-Yi Guo *(Shenzhen University)* and Fu-Chang Chen *(South China University of Technology)*

9:00-9:15 **[WS3-1] A Novel Broadband Notch-Band Vivaldi Antenna with Enhanced Out-of-Band Suppression**
Jiapeng He, Kun-Zhi Hu, Dajiang Li, Zhiyuan Chen, Dongyang Gu and Min Xiang *(Chongqing University of Posts and Telecommunications)*

9:15-9:30 **[WS3-2] Dual-Polarized Filtering Antenna Based on Grid-Shaped Radiator (Invited)**
Kai Huang *(Xiamen University)*, Li Gao *(South China University of Technology)*, Yao Zhang *(Xiamen University)*

9:30-9:45 **[WS3-3] Compact Frequency-Reconfigurable Waveguide Filter by Loading AMC Structures**
Ye-Xin Huang, Yong-Jie Yang and Jian-Xin Chen *(Nantong University)*

9:45-10:00 **[WS3-4] A Filtenna-Lens Complex for Generation of Circular-Polarized Filtering Bessel Beam**
Hao-Tao Hu, Yu Xiao and Zengping Chen *(Sun Yat-sen University)*

10:00-10:15 **[WS3-5] A Dual-Functional Circularly Polarized Surface Using Polarizer Integrated**
Mingxuan Liang and Qing-Yi Guo *(Shenzhen University)*

6 August (Wednesday)

Session	**[WS4] Microwave and Millimeter-wave Integrated Circuits and Antennas for Sensing and Communication**
Date	Wednesday, 6 August 2025
Venue	RM 2308, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs	Jing-Yu Lin (Xiamen University) and Sai-Wai Wong (Shenzhen University)

9:00-9:15	**[WS4-1] Low-Loss Substrate Integrated Waveguide Bandpass Filter Based on Through Glass Via for Millimeter Wave Application (Invited)** Ziyi Lei, Xin Chen and Jingyu Lin *(Xiamen University)*
9:15-9:30	**[WS4-2] Design of E-Plane Waveguide Diplexer Based on Band-pass Band-stop Resonator Section** Lin Yan and Jing-Yu Lin *(Xiamen University)*
9:30-9:45	**[WS4-3] Coplanar Stripline-Fed Dual-Mode Ring Resonators for Bandpass Behavior with Transmission Zeros** Zhao-An Ouyang and Chu-Peng Chen *(Jinan University)*, Lei Zhu *(University of Macau)*, Shancheng Zhao *(Jinan University)*
9:45-10:00	**[WS4-4] Monoblock Dielectric Waveguide Filters Using Non-Resonating Nodes with Controllable Transmission Zeros** Lei Zhou, Zhili Liu, Xin Liu and Ruiting Zhang *(Changsha University of Science and Technology)*, Chen Yang *(Beijing Institute of Technology)* and Fan Liu *(Changsha University of Science and Technology)*
10:00-10:15	**[WS4-5] A Dual-Functional Frequency-Selective Rabsorber with Linear-to-Circular Polarization Conversion and Out-of-Band Absorption** Youquan Wen and Sai-Wai Wong *(Shenzhen University)*

Technical Program
6 August 2025 (Wednesday)

Session	**[WR1] RF, Microwave, Millimeter-Wave, Terahertz Components and Circuits**
Date	Wednesday, 6 August 2025
Venue	RM 2306, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs	Anilkumar Patibandla *(University of Electronic Science and Technology of China)* and He Zhu *(Manufacturing, Commonwealth Scientific and Industrial Research Organization)*

9:00-9:15	**[WR1-1] Monolithic High-Temperature Superconducting (HTS) Sub-harmonic Mixers Using Anti-parallel Josephson Junction Pair** He Zhu, Ting Zhang and Jia Du *(Manufacturing, Commonwealth Scientific and Industrial Research Organization)*
9:15-9:30	**[WR1-2] Study on Reverse T-Shaped Staggered Double Vane Slow Wave Structure for THz Traveling Wave Tube** Patibandla Anilkumar, Shaomeng Wang, Atif Jameel, Bilawal Ali, Jibran Latif, Muhammad Khawar Nadeem, Tasir Ullah and Yubin Gong *(University of Electronic Science and Technology of China)*
9:30-9:45	**[WR1-3] Filtering Power Dividers Based on Dual-Orthogonal-Ridged Dielectric Waveguide Resonators** Lin-Xi Lu, Wei Qin and Jian-Xin Chen *(Nantong University)*
9:45-10:00	**[WR1-4] Deep Learning-Assisted Inverse Design of Pixelated Two-Port RF Matching Networks (Invited)** Tao Wang, Li Gao, Simei Yang and Xiuyin Zhang *(South China University of Technology)*
10:00-10:15	**[WR1-5] A Novel Compact Unequal Filtering Power Divider Free from 90° Phase Shift Requirement** Xuxuan Wu, Kaixu Wang and Zeyu Wu *(Harbin Institution of Technology)*
10:15–10:30	Tea Break

Session **[WS5] Advances in Microwave Circuits, Devices, and Systems for Next-Generation Wireless Communication and Sensing Applications**

Date Wednesday, 6 August 2025

Venue RM 3614, 3/F, Li Dak Sum Yip Yio Chin Academic Building

Organizers & Chairs Gengbo Wu *(City University of Hong Kong)*, Yafei Wu *(University of Electronic Science and Technology of China)* and Xu Yan *(City University of Hong Kong)*

10:30-10:45	**[WS5-1] V-Band Miniaturized Four-Channel Front-End for Phased Array Applications** Hongbin Wang, Ruizhi Wang, Lin Huang, Zongrui He, Yujian Cheng and Yafei Wu *(University of Electronic Science and Technology of China)*
10:45-11:00	**[WS5-2] A Novel Circuit Design for Direct Current Offset Cancellation in Interferometric Radar System (Invited)** Shuqin Dong, Guanghao Fan and Yongxin Guo *(City University of Hong Kong)*
11:00-11:15	**[WS5-3] Pattern Diversity Based on Single-Layer Reflectarray Antennas** Hao-Chen Mao *(City University of Hong Kong)*, Guan-Long Huang *(Foshan University)*, Geng-Bo Wu *(City University of Hong Kong)*
11:15-11:30	**[WS5-4] A TGV-based High Gain THz End-fire Antenna-in-Package with Parabolic Reflector and Inverted-T-Shaped Directors** Gang Zhuang, Ya Fei Wu and Yu Jian Cheng *(University of Electronic Science and Technology of China)*
11:30-11:45	**[WS5-5] Breaking the Bandwidth Barrier: A Seamless Hybrid PA Architecture for Ultra-Wideband Back-Off Efficiency (Invited)** Xiaohu Fang *(Southern University of Science and Technology)*

Technical Program
6 August 2025 (Wednesday)

6 August (Wednesday)

Session **[WS6] Low-Cost Millimeter-Wave/THz Antennas and Arrays**

Date Wednesday, 6 August 2025

Venue RM 2312, 2/F, Li Dak Sum Yip Yio Chin Academic Building

Organizers & Chairs Chunxu Mao *(South China University of Technology)*, Guanlong Huang *(Foshan University)* and Xiaoming Chen *(Xi'an Jiaotong University)*

10:30-10:45	**[WS6-1] A Low-Cost Ku-Band Parabolic Reflector-Based Multibeam Antenna** Tao Wang, Chunxu Mao and Xudong Cai *(South China University of Technology)*
10:45-11:00	**[WS6-2] A D-band Circularly Polarized Magnetoelectric Dipole Array Using Rectangular Micro-Coaxial Line** Qinlong Li, Xinrui Zhong, Xiaoming Chen and Cheng Guo, Guanghua Shi and Hongyu Shi *(Xi'an Jiaotong University)*
11:00-11:15	**[WS6-3] Multi-Beam Luneburg Antenna Design for Thz Applications** Wencheng Hou, Yuanxi Cao, Jianxi Gao, Cheng Guo and Sen Yan *(Xi'an Jiaotong University)*
11:15-11:30	**[WS6-4] W-Band High-Efficiency Four-Folded Transmitarray Based on Hybrid Huygens Metasurface** Xianhui He and Guanlong Huang *(Foshan University)*, Wanchen Yang *(Nanjing University of Aeronautics and Astronautics)*, Wenquan Che and Chunxu Mao *(South China University of Technology)*
11:30-11:45	**[WS6-5] 3D-Printed Dual-Band Conformal mmWave Antenna for Side-Mirror Integration in V2X Applications (Invited)** Yuzhang Zang *(Western Washington University)*

Session **[WS7] Innovative Lens Antennas for 5G and B5G Communications**
Date Wednesday, 6 August 2025
Venue RM 2310, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Organizers & Chairs Kai-Xu Wang *(Harbin Institute of Technology)* and Yu Xiao *(Sun Yat-sen University)*

10:30-10:45 **[WS7-1] A High Selective Filtering Transmitarray with 1-bit Reconfigurable Phase**
Zhi-Tao Du and Kai-Xu Wang *(Harbin Institution of Technology)*

10:45-11:00 **[WS7-2] Design of a 3-D Printed Wideband Circularly Polarized Terahertz Fresnel Lens Antenna**
Wenyi Teng and Kai Xu Wang *(Harbin Institution of Technology)* and Hang Wong *(City University of Hong Kong)*

11:00-11:15 **[WS7-3] Multibeam Ultra-Wideband Luneburg Lens Antenna for Terahertz Applications**
Meng Cao *(Beijing Institute of Technology)* and Jia Cao *(China Academy of Electronics and Information Technology)*

11:15-11:30 **[WS7-4] A Wide-Angle Dual-Polarized Multibeam Flat Lens Antenna for Millimeter-Wave**
Qingquan Tan, Kuikui Fan, Guo Qing Luo, Dong Yang, Feixiang Liu and Xianyu Zhang *(Hangzhou Dianzi University)*

11:30-11:45 **[WS7-5] Millimeter-Wave Linearly and Circularly Polarized Beam-Scanning Lens Antenna**
Ying Liu, Guo Cheng Tian and Yong Mei Pan *(South China University of Technology)*

Technical Program
6 August 2025 (Wednesday)

Session **[WS8] Innovative RF System and Antenna Designs for B5G/6G Communications**
Date Wednesday, 6 August 2025
Venue RM 2308, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs Bohai Zhang, Zhe Chen and Shuai Gao *(Shenzhen University)*

10:30-10:45 **[WS8-1] An Additively Manufactured Lens Antenna for Orbital Angular Momentum Multiplexing (Invited)**
Jia-Xin Zou and Zhe Chen *(Shenzhen University)*, Renyu Jiao *(Huaqin Technology Co., Ltd.)*, Bohai Zhang, Shuai Gao and Tao Yuan *(Shenzhen University)*

10:45-11:00 **[WS8-2] A Broadband Dual-Polarized Magneto-Electric Dipole Antenna for Millimeter-Wave Communication**
Feng-Zhi Liu, Bohai Zhang, Shuai Gao, Zhe Chen and Tao Yuan *(Shenzhen University)*

11:00-11:15 **[WS8-3] A Dual-Band Circularly Polarized Stacked Patch Antenna for Satellite Communication**
Jia-Xin Zou and Bohai Zhang *(Shenzhen University)*, Renyu Jiao *(Huaqin Technology Co., Ltd.)*, Shuai Gao, Zhe Chen and Tao Yuan *(Shenzhen University)*

11:15-11:30 **[WS8-4] Design and Performance Analysis of a Phased Array Transceiver Using SystemVue (Invited)**
Qixuan Liu, Bohai Zhang, Zhe Chen, Shuai Gao, JiTao Zhou and Tao Yuan *(Shenzhen University)*

11:30-11:45 **[WS8-5] A Wideband On-Antenna Power Combining Magnetoelectric Dipole with Gain Enhancement**
Yihong Xu, Kaixu Wang and Zihao Chen *(Harbin Institution of Technology)*

Session	**[WS9] Technological Developments and Challenges in Wideband and Integrated Millimeter-Wave and Terahertz Antennas**
Date	Wednesday, 6 August 2025
Venue	RM 2306, 2/F, Li Dak Sum Yip Yio Chin Academic Building
Chairs	Zihao Chen and Guanghua Sun (Harbin Institute of Technology)

10:30-10:45 **[WS9-1] D-Band Wideband Dual-Polarized Antenna Array Based on Hollow Waveguide (Invited)**
Shuntian Shi and Guang-Hua Sun *(Harbin Institute of Technology)*

10:45-11:00 **[WS9-2] A Series-Fed Circularly Polarized Array with Microbumps for Sub-THz Applications**
Kangliang Zhao and Zihao Chen *(Harbin Institute of Technology)*

11:00-11:15 **[WS9-3] A Wideband Endfire Circularly Polarized Antenna for Millimeter-Wave Application**
Ji-wei Huang, Mingxuan Liang and Qiwei Fu *(Shenzhen University)*, Liqiang Chen *(Shenzhen Feixiang Technolgoy Co., Ltd.)*, Peng Mei *(Aalborg University)* and Qing-Yi Guo *(Shenzhen University)*

11:15-11:30 **[WS9-4] Wideband and Low-Profile Differential-Fed Circular Polarized Antenna (Invited)**
Shixin Xu, Runcong Lv and Qing-Yi Guo *(Shenzhen University)*

11:30-11:45 **[WS9-5] A Wideband Via-Free Magneto-Electric Dipole Antenna Array with High Aperture Efficiency**
Jianhui Huang and Kwai-Man Luk *(City University of Hong Kong)*

Author Index

M

N

O

P

Q

R

S

Author Index

Author Index

Z

Author Index

OSCILLOSCOPE INNOVATION. MEASUREMENT CONFIDENCE.

Rohde & Schwarz Hong Kong Limited
Tel.: +852 2264 3788
Fax: +852 2264 3699
Email: info.rshk@rohde-schwarz.com
www.rohde-schwarz.com.hk

ROHDE&SCHWARZ
Make ideas real

ROHDE&SCHWARZ
Make ideas real

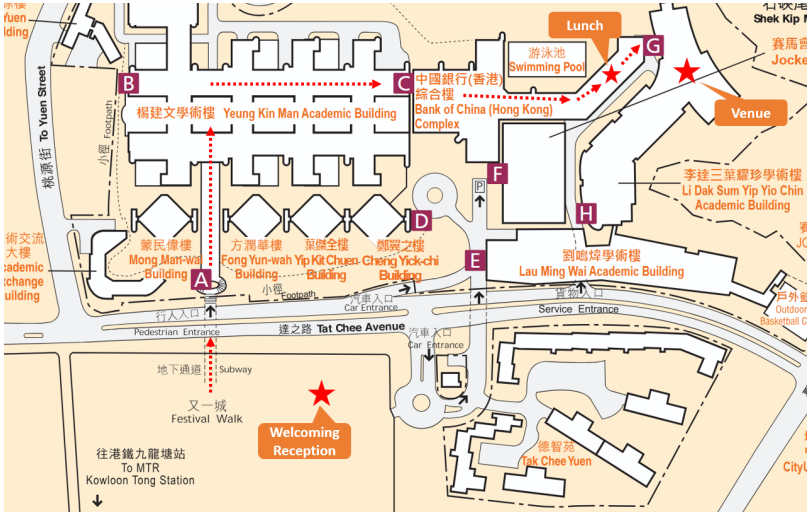
R&S VECTOR NETWORK ANALYZER UP TO 1100GHZ

Rohde & Schwarz Hong Kong Limited
Tel.: +852 2264 3788
Fax: +852 2264 3699
Email: info.rshk@rohde-schwarz.com
www.rohde-schwarz.com.hk

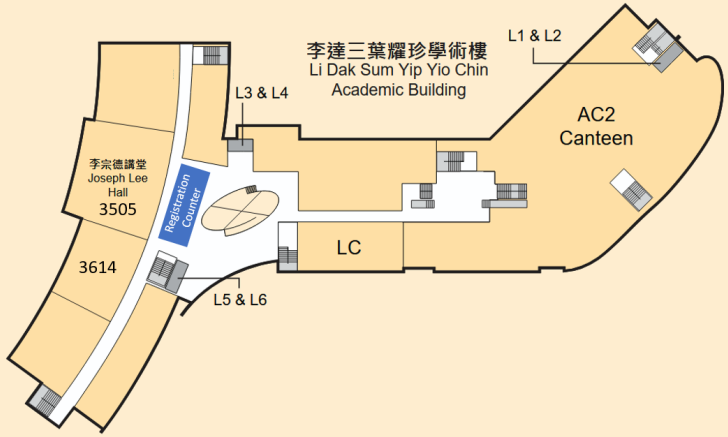
The iWEM 2025 will be held at City University of Hong Kong, Hong Kong SAR, China.

City University of Hong Kong
Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong SAR, China
www.cityu.edu.hk

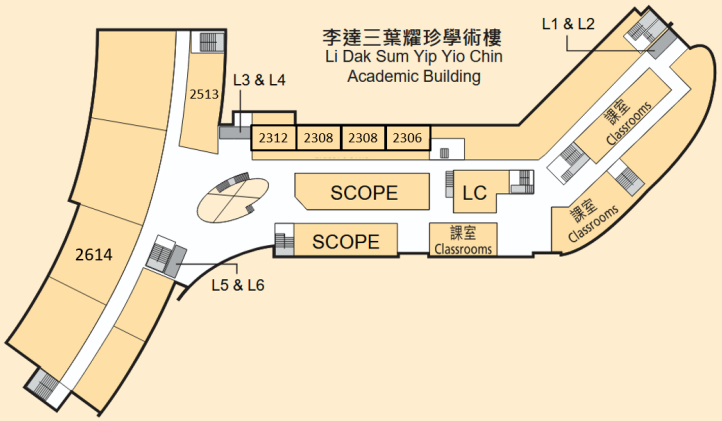
Venue
2/F & 3/F, Li Dak Sum Yip Yio Chin Academic Building, City University of Hong Kong



三樓
Floor 3



二樓
Floor 2



Lunches, Welcoming Reception and Banquet

Lunches

City Chinese Restaurant

8/F, Bank of China (Hong Kong) Complex, City University of Hong Kong

Faculty Lounge

9/F, Bank of China (Hong Kong) Complex, City University of Hong Kong

Welcoming Reception

Amaroni's New York Italian Restaurant & Café

LG1-32 Festival Walk, 80 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong

Banquet

Hong Kong Gold Coast Hotel

1 Castle Peak Road, Hong Kong

Organizers

IEEE (HK) Section
AP/MTT

State Key Laboratory of
Terahertz and Millimeter Waves
香港城市大學
City University of Hong Kong

Technical Sponsors

IEEE

IEEE AP-S
Antennas and Propagation Society

Diamond Sponsor

ROHDE&SCHWARZ
Make ideas real

Silver Sponsors

KEYSIGHT

VIRGINIA DIODES

www.iwem2025.org