



Conference Program

2025 IEEE 25th International Conference on Communication Technology

October 16-18, 2025 | Shenyang, China

Co-Sponsored By



IEEE China Council
中国联合会



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Welcome Message

Dear Distinguished Participants,

On behalf of the ICCT 2025 Organizing Committee, we extend a sincere welcome to you for the 2025 IEEE 25th International Conference on Communication Technology (ICCT 2025), hosted by Northeastern University and held at Sheraton Shenyang South City Hotel in Shenyang, China, from October 16 to 18, 2025. As a legacy event with 24 successful sessions, ICCT 2025 is co-sponsored by IEEE Beijing Section and IEEE China Council, and co-organized by Beijing University of Posts and Telecommunications, Southeast University, Xidian University, and the National Key Laboratory of Advanced Communication Network Technology—upholding its status as a top-tier academic gathering in global communication technology.

Guided by the theme “Ubiquitous Communications Enabling Smart World”, the conference will facilitate in-depth exchanges through keynote speeches, panel discussions, paper presentations, and poster sessions, covering frontier topics including wireless communications, AI-driven networks, IoT, integrated sensing and communication, and more. It aims to connect researchers, academics, industry professionals, and students worldwide, fostering the sharing of cutting-edge findings and innovative ideas.

We also invite you to explore Shenyang's profound cultural heritage—from the UNESCO-listed Fuling Mausoleum to the historic Mukden Palace—during your stay. May ICCT 2025 be a rewarding journey for academic collaboration and cultural experience. Let us unite to advance communication technology and co-create a sustainable smart future!

Once again, welcome to the 2025 IEEE 25th International Conference on Communication Technology. We look forward to an exciting and productive event.

IEEE ICCT 2025

Conference Committee

Organizing Committee

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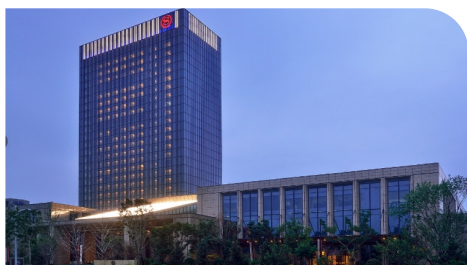


Qiang He
Northeastern University, China



Jianhong Zhou
University of Electronic Science
and Technology of China, China

Conference Venue



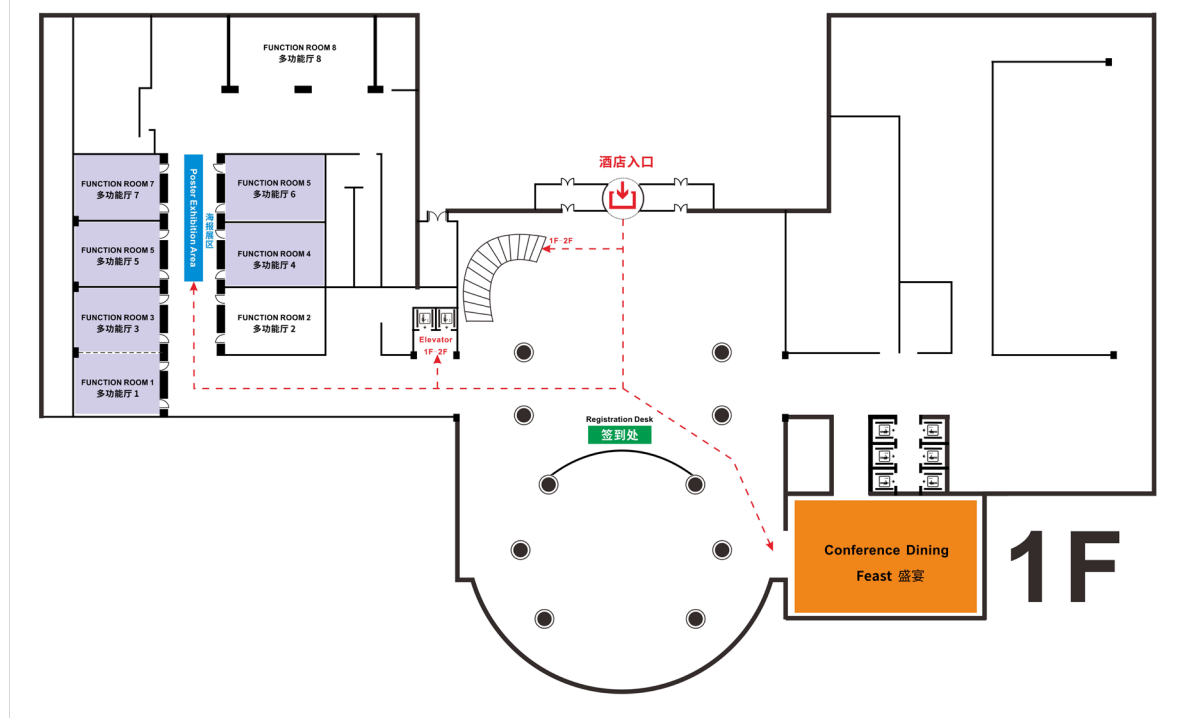
沈阳新都绿城喜来登酒店 Sheraton Shenyang South City Hotel

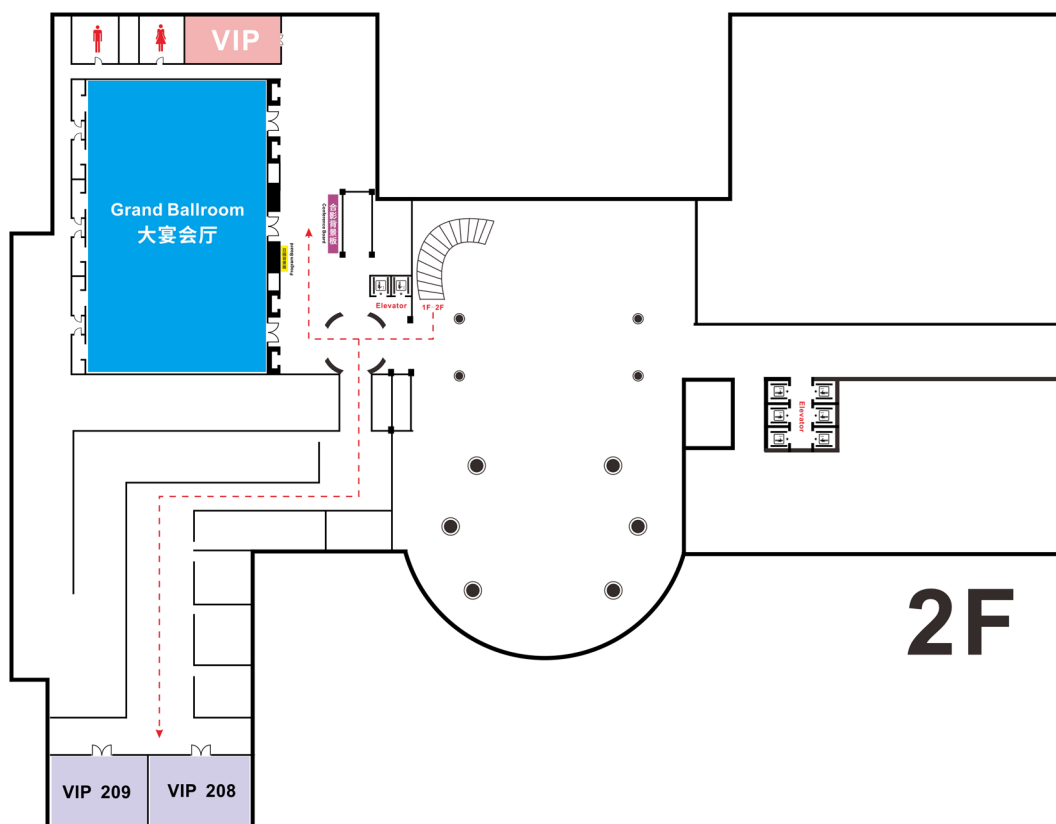
Address: 101-1 Shenzhong Avenue, Hunnan New District,
Shenyang, China

地址：沈阳浑南新区沈中大街 101-1 号

Conference Rooms

Level	Meeting Rooms	Oct. 16	Oct. 17	Oct. 18
1	Function Room 1	✓	✓	✓
1	Function Room 3		✓	✓
1	Function Room 5	✓	✓	✓
1	Function Room 4		✓	✓
1	Function Room 6		✓	✓
1	Function Room 7		✓	✓
1	Poster Area		✓	✓
2	Grand Ballroom		✓	✓
2	VIP 208		✓	✓
2	VIP 209		✓	✓





Traffic Information

From Shenyang Taoxian International Airport (SHE)

1. Taxi / Ride-hailing

Distance: Approximately 11.5 km

Duration: 9 – 15 minutes (depending on traffic)

Instructions: Exit the airport terminal and locate the taxi queue outside Arrivals Hall. Tell the driver the hotel address: "101-1 Shenzhong Avenue, Hunnan District (浑南区沈中大街 101-1 号)". The fare typically ranges from ¥28 to ¥35 .

2. Public Transport (Metro Line 2)

Distance: About 12 km (airport to hotel station)

Duration: 35 – 45 minutes (including waiting time)

Instructions:

Take Metro Line 2 (bound for Putian Road) directly from Taoxian Airport Station.

Get off at Shenzhong Avenue Station (沈中大街站) – the hotel is a 3-minute walk east of Exit A.

Fare: ¥7; trains run every 9 minutes, with first departure at 06:00 and last at 23:00.

From Shenyang Railway Station (Main Railway Station)

1. Taxi / Ride-hailing

Distance: Around 18 km

Duration: 30 – 40 minutes (avoiding rush hours 7:30 – 9:00 & 17:30 – 19:00)

Instructions: Queue for taxis outside the South Square of Shenyang Railway Station. The fare is usually ¥40 – ¥50 .

2. Public Transport (Metro Transfer)

Distance: Approximately 20 km

Duration: 40 – 50 minutes (including transfers)

Instructions:

Take Metro Line 1 (bound for 黎明广场) from Shenyang Railway Station to Qingnian Avenue Station (青年大街站, 15 minutes).

Transfer to Metro Line 2 (bound for Taoxian Airport) and alight at Shenzhong Avenue Station (20 minutes).

Fare: ¥6; Metro Line 1 operates 05:30 – 23:00.

Note: Travel times may vary due to traffic or weather. For real-time updates, use navigation apps like Baidu Maps.

Presentation Guidelines

• Oral Presentation

1. The duration of a presentation slot is 15 minutes. Please target your lecture for a duration of about 10 minutes for the presentation plus about 5 minutes for questions from the audience.
2. Your punctual arrival and active involvement in each session will be highly appreciated.
 - Get your presentation PPT or PDF files prepared and backed up.
3. Laptops, projector & screen, laser sticks will be provided by the conference organizer.

• Poster Presentation

It's expected that at least one author stands by the poster for (most of the time of) the duration of the poster session. This is essential both to present your work to anyone interest in it and to make sure that your presence is verified by committee.

• Online Presentation | Password: 101618

Zoom 1:

<https://us02web.zoom.us/j/82147026350>

Zoom 2:

<https://us02web.zoom.us/j/84295982825>

Time Zone

China Standard Time (CST), UTC/GMT+8

Please make sure that both the clock and the time zone on your computer are set to the correct China standard time.

Presentation Tips

Each presentation slot is 15 minutes. Please prepare to speak for around 12 minutes, allowing 3 minutes for audience questions.

Join the meeting room at least 15 minutes before the session begins.

• Security

Please ensure that you take your belongings with you at all times when leaving a room.

Do not leave bags or laptops unattended.

Agenda Overview

Day 1

16 October, 2025 | Thursday

Time	Activity	Venue
10:00-18:00	Sign-in & Conference Materials Collection	Lobby of Sheraton Shenyang South City Hotel 1F
14:00-17:00	Online Participation Testing for Equipment	821 4702 6350 Password: 101618
14:00-17:00	Tutorial 1 Towards 6G Intelligence in Space-Ground Integrated Networks: Random Access, Mobility Management, and Federated Learning	Function Room 1 1F
14:00-17:00	Tutorial 3 AI-Native RAN-based Terminal-Edge-Cloud collaboration towards 6G	Function Room 5 1F
18:00	Dinner	Feast 1F

Day 2

17 October, 2025 | Friday

Time	Activity	Venue
10:00-18:00	Sign-in & Conference Materials Collection	Lobby of Sheraton Shenyang South City Hotel 1F
Opening Ceremony		
08:30-08:40	Opening Remarks	Grand Ballroom 2F
08:40-08:45	Welcome Address	
08:45-08:50	TPC Chair Address	
08:50-08:55	Group Photo	
Keynote Speech		
08:55-09:40	Keynote Speech Xuemin (Sherman) Shen , University of Waterloo, Canada <i>Title: High-Fidelity and Efficient Simulator for 6G Space-Terrestrial Integrated Networks</i>	Grand Ballroom 2F
09:40-10:00	Coffee Break	
10:00-10:45	Keynote Speech Qian Zhang , The Hong Kong University of Science and Technology, Hong Kong, China	Grand Ballroom 2F

	<i>Title: Edge-AI Powered mmWave Sensing: Towards Intelligent Human-Centric Systems</i>	
10:45-11:30	Keynote Speech Tony Q.S. Quek , Singapore University of Technology and Design, Singapore <i>Title: From Theory to Practice in 6G AI-Native Network</i>	
11:30-12:15	Keynote Speech Min Huang , Northeastern University, China <i>Title: Distributed and Trustworthy Knowledge-Defined Networking</i>	
12:15-13:30	Lunch	Feast 1F
13:30-16:30	Tutorial 2 Demystifying 6G AI-RAN: A New Paradigm for Intent-Driven Networking and Edge AI Services	821 4702 6350 Password: 101618
13:30-15:20	Technical Session 1 - Mobile and Wireless Networks Invited Speaker – Tianming Ma CT4389, CT4373, CT4384, CT3285, CT2099, CT3314	Function Room 1 1F
13:30-15:10	Technical Session 2 - Optical Communications and Networks Invited Speaker – Yongcheng Li, Bitao Pan, Chao Li, Jian Zhao, Zuqing Zhu	Function Room 3 1F
13:30-15:25	Technical Session 3 - Integrated Sensing and Communication Invited Speaker – Lei Li, Jie Huang CT2116, CT4338, CT4357, CT2141, CT2143	Function Room 4 1F
13:30-15:05	Technical Session 4 - Integrated Sensing and Communication Invited Speaker – Yan Li CT1029, CT1006, CT2180, CT3250, CT1011	Function Room 5 1F
13:30-15:25	Technical Session 5 - AI for Communications and Networks Invited Speaker – Wenchao Xia, Xiaoying Tang CT2183, CT3259, CT1049, CT3234, CT2159	Function Room 6 1F
13:30-15:10	Technical Session 6 - Internet-of-Things & Sensor Networks Invited Speaker – Ke Zhang, Chenyuan Feng, Kun Guo, Yunkai Wei, Xiaobei Zhang	Function Room 7 1F
13:30-15:30	Technical Session 7 - Communication and Information Security Invited Speaker – Chuanting Zhang, Gang Yang, Huatao Zhu CT2123, CT3327, CT3209, CT3247	VIP 208 2F
13:30-15:10	Technical Session 8 - Optical Communications and Networks Invited Speaker – Yixiao Zhu, Zhaopeng Xu	VIP 209 2F

	CT1017, CT1065, CT4376, CT3287	
13:30-15:30	Poster Session 1 - Advances in Wireless and Satellite Comm RF and Intell. Signal Proc. CT1010, CT3284, CT3189, CT2167, CT2113, CT1051, CT2090, CT3316, CT3268, CT2104, CT2174, CT2144, CT1033, CT3310, CT3233, CT5404, CT4333, CT4344, CT3203, CT2162, CT3289, CT3220, CT3221, CT2158, CT2101, CT4340, CT4356, CT3229, CT4378, CT1076, CT4352, CT1081, CT4353, CT4392	Poster Area 1F
15:30-16:00	Coffee Break	
16:00-17:20	Technical Session 9 - Green Communication Systems & Networks Invited Speaker – Liwei Yang CT3193, CT1028, CT4350, CT4363	Function Room 1 1F
16:00-17:40	Technical Session 10 - Signal Processing for Communications Invited Speaker – Yuanyuan Wu, Hongwei Wang CT3309, CT3200, CT2094, CT5399	Function Room 3 1F
16:00-17:35	Technical Session 11 - Space-Air-Ground Communication and Space Networking Invited Speaker – Dongdong Wang CT1079, CT3302, CT2114, CT3186, CT3208	Function Room 4 1F
16:00-17:20	Technical Session 12 - Cloud and Edge Computing Invited Speaker – Long Luo CT2163, CT1067, CT4367, CT4336	Function Room 5 1F
16:00-17:35	Technical Session 13 - Internet-of-Things & Sensor Networks Invited Speaker – Zhiqing Tang CT4383, CT3297, CT2127, CT3274, CT3252	Function Room 6 1F
16:00-17:40	Technical Session 14 - Internet-of-Things & Sensor Networks Invited Speaker – Tao Zhang, Tianshun Wang CT3217, CT4393, CT1016, CT3254	Function Room 7 1F
16:00-17:20	Technical Session 15 - Space-Air-Ground Communication and Space Networking Invited Speaker – Siyu Zhang CT5408, CT4346, CT3324, CT3296	VIP 208 2F
16:00-17:20	Technical Session 16 - Space-Air-Ground Communication and Space Networking Invited Speaker – Feng Wang CT4369, CT3226, CT4351, CT3306	VIP 209 2F

16:00-18:00	Poster Session 2 - Advances in Satellite, MEC and Wireless Technologies CT3237, CT3197, CT4385, CT1053, CT1007, CT3277, CT2154, CT1039, CT2178, CT3317, CT3255, CT1002, CT2147, CT3191, CT2111, CT1046, CT1070, CT2152, CT1013, CT2142, CT3213, CT4347, CT1014, CT2169, CT3199, CT4341, CT2121, CT5402-A, CT3248, CT4360, CT2170, CT1050, CT3267, CT3326, CT4380	Poster Area 1F
18:30	Banquet	Grand Ballroom 2F

Day 3 – Onsite Schedule		18 October, 2025 Saturday
Time	Activity	Venue
Keynote Speech		
08:30-09:15	Keynote Speech Zhiwen Yu , Harbin Engineering University, China <i>Title: Crowd Sensing 2.0: From Human-Centered to Heterogeneous Crowd Sensing</i>	Grand Ballroom 2F
09:15-10:00	Keynote Speech Chen Tian , Nanjing University, China <i>Title: Squeezing Operator Performance Potential for the Ascend Architecture</i>	
10:00-10:20	Coffee Break	
10:20-11:05	Keynote Speech Xiaohua Tian , Shanghai Jiao Tong University, China <i>Title: Near-Zero-Power Software-Defined Networks</i>	Grand Ballroom 2F
11:05-11:50	Keynote Speech David Gesbert , EURECOM, France <i>Title: Sensing and Charting in the Sky with UAV-aided 6G Networks</i>	
12:00-13:30	Lunch	
13:30-15:05	Technical Session 17 - Integrated Sensing and Communication Invited Speaker – Mengyuan Ye CT5405, CT4354, CT2179, CT5409, CT904	Function Room 1 1F
13:30-15:05	Technical Session 18 - Reconfigurable Intelligent Surfaces Invited Speaker – Xufang Wang CT2117, CT1044, CT1055, CT3331, CT3290	Function Room 3 1F
13:30-15:05	Technical Session 19 - Reconfigurable Intelligent Surfaces Invited Speaker – Chao Fang CT5406, CT4343, CT2146, CT2083, CT2177	Function Room 4 1F

13:30-15:25	Technical Session 20 - AI for Communications and Networks Invited Speaker – Chen Huang, Congduan Li CT3257, CT3319, CT3276, CT4362, CT3227	Function Room 5 1F
13:30-15:10	Technical Session 21 - Cloud and Edge Computing Invited Speaker – Shuai Wang, Xiaobo Zhou, Yan Lin, Yanmeng Wang, Yiwei Li	Function Room 6 1F
13:30-15:05	Technical Session 22 - Communication QoS, Reliability & Modeling Invited Speaker – Shengyu Zhang CT3236, CT3243, CT2085, CT4387, CT2171	Function Room 7 1F
13:30-15:05	Technical Session 23 - Aerial Communications, UAV Communications, Vehicular Networks Invited Speaker – Chenxi Liu CT3214, CT3270, CT2087, CT3260, CT3322	VIP 208 2F
13:30-14:50	Technical Session 24 - Aerial Communications, UAV Communications, Vehicular Networks Invited Speaker – Yan Zhang CT3291, CT3265, CT1027, CT3292	VIP 209 2F
13:30-15:30	Poster Session 3 - Advances in Comm, Signal Processing, RF and AI CT4377, CT3204, CT1069, CT1078, CT2098, CT1058, CT1057, CT3207, CT1060, CT4358, CT1024, CT1035, CT1048, CT4335-A, CT901, CT4361, CT1075, CT2100, CT1073, CT3232, CT902, CT4368, CT4390, CT3212, CT1056, CT3281, CT4348, CT3320, CT3235, CT3241, CT2199	Poster Area 1F
15:30-16:00	Coffee Break	
16:00-17:40	Technical Session 25 - Signal Processing for Communications Invited Speaker – Jun Li, Miaowen Wen CT3300, CT2115, CT2156, CT2092	Function Room 1 1F
16:00-17:45	Technical Session 26 - Signal Processing for Communications Invited Speaker – Xiaoqiang Hua, Yanqing Xu, Shuai Ma CT2129, CT3264, CT4370	Function Room 3 1F
16:00-17:50	Technical Session 27 - Signal Processing for Communications Invited Speaker – Ding Wang CT1040, CT2133, CT3190, CT3294, CT1052, CT4382	Function Room 4 1F
16:00-18:00	Technical Session 28 - Optical Communications and Networks Invited Speaker – Lu Zhang, Tao Yang, Weiqiang Sun CT1012, CT2145, CT3305, CT5401	Function Room 5 1F

16:00-17:55	Technical Session 29 - Communication and Information Security Invited Speaker – Rui Chen, Yongmin Li CT4342, CT3266, CT2112, CT2126, CT3211	Function Room 6 1F
16:00-18:00	Technical Session 30 - AI for Communications and Networks Invited Speaker – Zhiyong Du, Kaisa Zhang, Zihan Chen CT3258, CT2151, CT2130, CT5407	Function Room 7 1F
16:00-18:00	Technical Session 31 - Communication and Information Theory Invited Speaker – Jian Dang, Xinyue Pei, Yingyang Chen CT2166, CT3295, CT2150, CT2168	VIP 208 2F
16:00-17:25	Technical Session 32 - Space-Air-Ground Communication and Space Networking Invited Speaker – Xin Li, Kainan Wang CT3311, CT3299, CT5400	VIP 209 2F
16:00-18:00	Poster Session 4 - Advances in Communications, Security and Signal Processing CT2135, CT4374, CT2106, CT3303, CT1023, CT3315, CT3210, CT2138, CT4379, CT3328, CT2148, CT4381, CT3201, CT3198, CT3242, CT1045, CT3275, CT2109, CT2165, CT4359, CT3318, CT3308, CT2122, CT3251, CT1026, CT3239, CT2182, CT3246, CT4366, CT3240, CT2103, CT2105, CT4355	Poster Area 1F
18:00	Dinner	Feast 1F

Day 3 – Online Sessions

18 October, 2025 | Saturday

Time	Activity	Venue
09:30-12:00	Online Session 1 - Intelligent Learning-Driven Network Resource Scheduling and Energy Efficiency Optimization CT3238, CT2175, CT2136, CT2149, CT2107, CT2140, CT3194, CT3261, CT4394, CT2119	821 4702 6350 Password: 101618
09:30-12:15	Online Session 2 - RIS/ISAC-Aided and MIMO System Design and Performance Optimization CT1009, CT4365, CT3293, CT3301, CT3279, CT1066, CT3280, CT3323, CT3325, CT2153, CT3188	842 9598 2825 Password: 101618
12:30-13:30	Lunch	
13:30-17:45	Online Session 3 - Satellite and Space-Air-Ground Integrated Communication System Design Invited Speaker – Han Wu CT2088, CT2139, CT5398, CT3222, CT3249, CT1030, CT1031, CT2157, CT1054, CT3272, CT1059, CT2125, CT3228, CT2095	821 4702 6350 Password: 101618

13:30-17:45	Online Session 4 - Communication Security, Signal Processing, and Network Protocol Optimization Invited Speaker - Shiyang Han CT1062, CT2097, CT2102, CT1043, CT3286, CT1061, CT4388, CT2160, CT2108, CT1008, CT3273, CT1063, CT2137, CT2132	842 9598 2825 Password: 101618
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**KEYNOTE
SPEAKERS**

1

Keynote Speaker

Oct. 17, 2025 | 08:55-09:40

Grand Ballroom 2F



Xuemin (Sherman) Shen

University of Waterloo, Canada

Bio.: Xuemin (Sherman) Shen is a University Professor in Electrical and Computer Engineering at the University of Waterloo, Canada. His research interests include user mobility and network resource management, wireless network security, for future communication systems. Professor Shen is the Technical Program Committee Chair for IEEE Globecom'24, Globecom'16, IEEE Infocom14, IEEE VTC'10 Fall, and IEEE Globecom'07. He was the Editor-in-Chief of the IEEE Internet of Things Journal, IEEE Network, and IET Communications. Professor Shen served as the 2022-2023 President of IEEE Communications Society. He is a Fellow of the IEEE, Royal Society of Canada, Canadian Academy of Engineering, and Engineering Institute of Canada, a Foreign Member of Chinese Academy of Engineering, and an International Fellow of the Engineering Academy of Japan.

Speech Title

High-Fidelity and Efficient Simulator for 6G Space-Terrestrial Integrated Networks

Abstract: Space-terrestrial integrated networks are envisioned to realize a giant leap forward for the future sixth generation (6G) coverage expansion, bridging digital divide for remote areas and providing ubiquitous services. In this talk, we provide an overview of the team's recent endeavors in the high-fidelity and efficient simulator for 6G space-terrestrial integrated networks with low-Earth-orbit (LEO) mega-constellation satellites. Particularly, we introduce a systematic, scalable and comprehensive simulation architecture, which enables high-fidelity modeling of network configurations and high efficiency simulation of network operation and management capabilities, while providing users with intuitive visualizations. Our developed simulator can offer fresh perspectives and novel avenues for evaluating critical technologies and validating essential methods in the context of 6G space-terrestrial integrated networks and large-scale LEO constellation ultra-dense networking.

Keynote Speaker

Oct. 17, 2025 | 10:00-10:45

Grand Ballroom 2F



Qian Zhang

The Hong Kong University of Science and Technology, Hong Kong, China

Bio.: Dr. Qian Zhang joined the Hong Kong University of Science and Technology (HKUST) in September 2005. She is currently the Head of the Division of Integrative Systems and Design (ISD), Tencent Professor of Engineering, and Chair Professor of the Department of Computer Science and Engineering (CSE) at HKUST. She is also the Director of the Microsoft Research Asia-HKUST Joint Laboratory, the Co-Director of the Huawei-HKUST Innovation Laboratory, and the Director of the HKUST Digital Life Research Center. Prior to this, she worked at Microsoft Research Asia from July 1999 as a research manager in the Wireless and Networking Group. Dr. Zhang has published more than 500 refereed papers in leading international journals and major conferences. She is the inventor of more than 50 international patents. Her current research interests include the Intelligent Internet of Things (AIoT), smart health, mobile computing and sensing, wireless networks, and network security.

Dr. Qian Zhang is an IEEE Fellow and a Fellow of the Hong Kong Academy of Engineering (HKAIE). Dr. Zhang has won many awards, including the Ho Leung Ho Lee Foundation Science and Technology Innovation Award, the China Youth Science and Technology Award, the National Natural Science Second Prize (third winner), and the MIT TR100. Dr. Zhang served as the Editor-in-Chief of IEEE Transactions on Mobile Computing from 2020 to 2022. She is currently a member of the IEEE Infocom Steering Committee.

Speech Title

Edge-AI Powered mmWave Sensing: Towards Intelligent Human-Centric Systems

Abstract: The development of AI and the Internet of Things (IoT) has brought new development opportunities to the industry. The advancement of intelligent sensing technology has laid the foundation for realizing human-centered intelligent scene. Many applications such as entertainment, fitness, and healthcare require accurate understanding of user behavior in a convenient and easy way. In this lecture, I will share some of our work on intelligent sensing technology based on mmWave signal. With single modality sensing, a dry eye disease screening solution will be introduced. With cross-modality knowledge transfer framework, detailed dry eye disease assessment as well as dynamic blood pressure waveform monitoring will be introduced. Finally, with multi-modal fusion idea, the hand tremors detection will be elaborated in this talk.

Keynote Speaker

Oct. 17, 2025 | 10:45-11:30

Grand Ballroom 2F



Tony Q.S. Quek

Singapore University of Technology and Design, Singapore

Bio.: Tony Q.S. Quek received the B.E. and M.E. degrees in Electrical and Electronics Engineering from Tokyo Institute of Technology, respectively. At Massachusetts Institute of Technology, he earned the Ph.D. in Electrical Engineering and Computer Science. Currently, he is the Associate Provost (AI & Digital Innovation) and Cheng Tsang Man Chair Professor with Singapore University of Technology and Design (SUTD). He also serves as the Director of the Future Communications R&D Programme, and the ST Engineering Distinguished Professor. His current research topics include wireless communications and networking, AI-RAN, non-terrestrial networks, open radio access network, and 6G.

Dr. Quek received the 2008 Philip Yeo Prize for Outstanding Achievement in Research, the 2012 IEEE William R. Bennett Prize, the 2016 IEEE Signal Processing Society Young Author Best Paper Award, the 2017 CTTC Early Achievement Award, the 2017 IEEE ComSoc AP Outstanding Paper Award, the 2020 IEEE Communications Society Young Author Best Paper Award, the 2020 IEEE Stephen O. Rice Prize, the 2020 Nokia Visiting Professorship, the 2022 IEEE Signal Processing Society Best Paper Award, the 2024 IIT Bombay International Award For Excellence in Research in Engineering and Technology, the IEEE Communications Society WTC Recognition Award 2024, and the Public Administration Medal (Bronze). He is an IEEE Fellow, a WWRF Fellow, an AIAA Fellow, and a Fellow of the Academy of Engineering Singapore.

Speech Title

From Theory to Practice in 6G AI-Native Network

Abstract: With the advances in big data computing technology, AI already shows promising potentials in wireless industry, and we expect it will play an even more crucial role in 6G wireless networks. On the other hand, there is a future trend to explore the concurrent use of converged computer-and-communications infrastructure to run RAN and AI and Generative AI workloads, enhancing platform utilization and creating new monetization opportunities. Lastly, it is crucial to understand the radio interface requirements for running AI and Generative AI applications across consumer, enterprise, and government sectors. In this talk, we will first look at the theory aspect of an AI-native network through distributed learning and semantic communications. Next, we proceed to explore the practice aspect in implementing an AI-native network through the concept of AI-RAN and explains how it can transform future networks with AI. In conclusion, we will also share some of our work through Singapore's Future Communications Research and Development Programme (FCP).

Keynote Speaker

Oct. 17, 2025 | 11:30-12:15

Grand Ballroom 2F



Min Huang

Northeastern University, China

Bio.: Min Huang is currently a Full Professor with the College of Information Science and Engineering, Northeastern University, China. She received the National Science Fund for Distinguished Young Scholars in 2013, and has been a Changjiang Scholarship Chair Professor, Ministry of Education, China, since 2016. She was a Senior Visiting Scholar with the Department of Industrial and Operations Engineering, University of Michigan (Ann Arbor), Michigan, USA, in 2011. Prof. Huang is the Head of the Artificial Intelligence Department of Northeastern University, the director of the Liaoning Key Laboratory of Intelligent Science and Intelligent System. She is the recipient of eight national or provincial prizes and awards. Prof. Huang has been granted over more than 40 national and provincial projects, authored more than 200 refereed publications in international academic journals, such as IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Cybernetics, published 10 books (1 translation), with her research interests including modeling, analytics, and optimization for industrial network, blockchain, chain systems, risk management, behavioral operations management, computational intelligence.

Speech Title

Distributed and Trustworthy Knowledge-Defined Networking

Abstract: As network environments grow increasingly complex and decentralized, traditional network architectures face critical challenges such as limited scalability, insufficient intelligence, and inadequate trust assurance. Addressing these challenges necessitates the development of mechanisms that enable distributed self-learning, self-adaptation, and self-optimization under privacy-preserving constraints to enhance overall network performance. To this end, we propose a distributed and trustworthy knowledge-defined networking architecture that integrates knowledge-defined networking, federated learning, and blockchain technologies. This framework facilitates distributed modeling and decentralized trust management, promoting intelligent and autonomous network evolution. Its core contribution lies in overcoming the rigidity of conventional control paradigms by fostering a flexible, scalable, and collaborative ecosystem capable of efficient and reliable resource coordination. Ultimately, this architecture establishes both the theoretical and technical foundations for sustainable, intelligent, and trustworthy next-generation networks.

Keynote Speaker

Oct. 18, 2025 | 08:30-09:15

Grand Ballroom 2F



Zhiwen Yu

Harbin Engineering University, China

Bio.: Dr. Zhiwen Yu is currently a vice president of Harbin Engineering University, China and a professor of Northwestern Polytechnical University, China. He has worked as an Alexander Von Humboldt Fellow at Mannheim University, Germany from Nov. 2009 to Oct. 2010, a research fellow at Kyoto University, Japan from Feb. 2007 to Jan. 2009, and a post-doctoral researcher at Nagoya University, Japan in 2006-2007. His research interests cover Ubiquitous Computing, Internet of Things, and Crowd Sensing and Computing. He is the Editor-in-Chief of CCF Transactions on Pervasive Computing and Interaction. He has served as an associate/guest editor for a number of international journals, such as IEEE Transactions on Human-Machine Systems, IEEE Communications Magazine, and ACM Transactions on Intelligent Systems and Technology. He received the CCF Young Scientist Award in 2011, the Humboldt Fellowship in 2008, and the CCF Excellent Doctoral Dissertation Award in 2006. He got the National Science Fund for Distinguished Young Scholars in 2017.

Speech Title

Crowd Sensing 2.0: From Human-Centered to Heterogeneous Crowd Sensing

Abstract: Crowd sensing is a new sensing paradigm that uses individual mobile and ubiquitous sensing capability to accomplish complex sensing tasks. In this speech, I will introduce our work in crowd sensing in various aspects, such as theory, methods, and platform. Furthermore, I will present the main idea of crowd sensing 2.0, including the features and enabling technologies of heterogeneous crowd sensing.

Keynote Speaker

Oct. 18, 2025 | 09:15-10:00

Grand Ballroom 2F



Chen Tian

Nanjing University, China

Bio.: Chen Tian, is currently a professor and doctoral supervisor at the School of Computer Science, Nanjing University. In 2023, he was selected for the National Science Fund for Distinguished Young Scholars. His research expertise lies in computer networks and distributed systems. He has published more than 100 papers in top academic conferences and renowned international journals in the fields of computer networks and distributed systems, such as SIGCOMM, NSDI, OSDI, FAST, SIGMOD, PPOPP, and Eurosys. He proposed a congestion management concept centered on traffic control for next-generation data center networks, designed a stateful programmable network tester with independent intellectual property rights, led the realization of large-scale parallel acceleration of open-source network simulation software, and served as the rotating chairman of the OpenNetLab international network testbed.

Speech Title

Squeezing Operator Performance Potential for the Ascend Architecture

Abstract: With the rise of deep learning, many companies have developed domain-specific architectures (DSAs) optimized for AI workloads, with Ascend being a representative. To fully realize the operator performance on Ascend, effective analysis and optimization is urgently needed. Compared to GPU, Ascend requires users to manage operations manually, leading to complex performance issues that require precise analysis. However, existing roofline models face challenges of visualization complexity and inaccurate performance assessment. To address these needs, we introduce a component-based roofline model that abstracts components to capture operator performance, thereby effectively identifying bottleneck components. Furthermore, through practical operator optimization case studies, we illustrate a comprehensive process of optimization based on roofline analysis, summarizing common performance issues and optimization strategies. Finally, extensive end-to-end optimization experiments demonstrate significant model speed improvements, ranging from $1.07\times$ to $2.15\times$, along with valuable insights from practice.

Keynote Speaker

Oct. 18, 2025 | 10:20-11:05

Grand Ballroom 2F



Xiaohua Tian

Shanghai Jiao Tong University, China

Bio.: Xiaohua Tian is currently a professor at Shanghai Jiao Tong University. He is a recipient of the Excellent Young Scientists Fund from the Natural Science Foundation of China, and served as the chief scientist of a project from the National Key R&D Program of China. His research interest is near-zero-power network architecture, system and ASICs. Dr. Tian has published more than 80 papers in prestigious academic conferences and journals, such as MobiCom, MobiSys, Ubicomp, ISSCC, ToN and TMC. His research achievements have been honored with the Natural Science Award (First Class) from the China Institute of Communications (1st accomplisher), and recognized as one of the 2023 China IoT conference Top Ten Technological Advancements, China Institute of Electronics and China Institute of Communications (1st accomplisher). He serves as an IEEE Distinguished Lecturer, an Associate Editor for IEEE Transactions on Mobile Computing, Column Editor for IEEE Network, and an Associate Editor for IEEE Internet of Things Journal. He served as the Vice TPC Chair of the ACM Turing Celebration Conference–China (TURC) 2019.

Speech Title

Near-Zero-Power Software-Defined Networks

Abstract: Near-zero power networks leverage backscatter communication schemes to provide microwatt power level IoT connectivity. The core goal of near-zero-power software-defined networking is to address the dual constraints of limited resources and poor deployment environments for "weak terminals" to effectively connect to the internet. We proposed a ten-microwatt-level orthogonal frequency division multiple access (OFDMA) design and a physical layer software-defined architecture, and implemented these innovative principles in integrated circuits.

Keynote Speaker

Oct. 18, 2025 | 11:05-11:50

Grand Ballroom 2F



David Gesbert

EURECOM, France

Bio.: Prof. David Gesbert (Fellow, IEEE) is serving as Director of EURECOM, Sophia Antipolis, France (www.eurecom.fr). He received the Ph.D. degree from TelecomParis, France, in 1997. From 1997 to 1999, he was with the Information Systems Laboratory, Stanford University. He was a founding engineer of Iospan Wireless Inc., a Stanford spin off pioneering MIMO-OFDM (currently Intel). Before joining EURECOM in 2004, he was with the Department of Informatics, University of Oslo. He has published about 350 articles and 25 patents, 7 of them winning IEEE Best paper awards. He has been the Technical Program Co-Chair for ICC2017 and has been named a Thomson-Reuters Highly Cited Researchers in computer science. He is a Board Member for the OpenAirInterface (OAI) Software Alliance. He was a previous awardee of an ERC Advanced Grant in the area of future networks. In 2020, he was also awarded funding by the French Interdisciplinary Institute on Artificial Intelligence for a Chair in the area of AI for the future IoT. In 2021, he received the Grand Prix in Research jointly from IMT and the French Academy of Sciences.

Speech Title

Sensing and Charting in the Sky with UAV-aided 6G Networks

Abstract: This talk explores the growing synergies between robotics, specifically flying robots, and next-generation wireless networks such as 6G. An overview of ongoing research at EURECOM will be presented, focusing on how advanced wireless technologies can empower aerial robotic systems, and conversely, how robotic platforms can enhance network capabilities by providing extended connectivity, environmental awareness, and accurate sensing. The talk will also showcase real-world experimentation using OpenAirInterface and the custom platform developed by the Drone4Wireless laboratory at EURECOM, offering practical insights and results at the intersection of robotics and wireless innovation with application to connectivity, sensing, localization and charting.



TUTORIALS

2

Tutorials

Tutorials 1: Towards 6G Intelligence in Space-Ground Integrated Networks: Random Access, Mobility Management, and Federated Learning

Corresponding Author: Weixiao Meng, Harbin Institute of Technology, China

14:00-17:00 | Oct. 16, 2025 | Function Room 1

Name	Affiliation
Shuyi Chen	Harbin Institute of Technology, China
Feng Wang	Singapore University of Technology and Design, Singapore
Qian Chen	The University of Hong Kong, China

Corresponding Author | Weixiao Meng, Harbin Institute of Technology, China



Bio.: Weixiao Meng (Senior Member, IEEE) received the B.E., M. E., and Ph.D. degrees from Harbin Institute of Technology (HIT), Harbin, China, in 1990, 1995, and 2000, respectively. He is now a full professor of the School of Electronics and Information Engineering of HIT. His research interests include broadband wireless communications, space-air-ground integrated networks and communication and sensing integration. He is the Chair of IEEE ComSoc Harbin Chapter, a Fellow of the China Institute of Electronics, a senior member of the IEEE ComSoc and the China Institute of Communication. He has been an editorial board for IEEE Communications Surveys and Tutorials from 2014 to 2017 and IEEE Wireless Communications from 2015 to 2020. He acted as Workshop co-Chair of IEEE ICC 2019 and IEEE ICNC 2020, AHSN Symposia co-Chair of IEEE ICC 2020. He was the recipient of the Best Paper Award in 2021 IEEE System Journal and ICC 2023. From 2020 to 2023, he was selected into the Top 2% of the World's Scientists by Stanford University.

Speaker 1 | Shuyi Chen, Harbin Institute of Technology, China



Presentation Title: Low-Complexity Grant-Free Detection With Enhanced Message-Passing in LEO Satellite-IoT

Bio.: Shuyi Chen (Member, IEEE) received the B.Sc., M.Sc., and Ph.D. degrees in Information and Communication Engineering from the School of Electronics and Information Engineering, Harbin Institute of Technology (HIT), Harbin, China, in 2013, 2015, and 2021, respectively. She is currently an Associate Professor with HIT. She has been recognized with several prestigious honors, including selection into the China Association for Science and Technology's Youth Talent Support Project, the Excellent Young Scientists Project of the Natural Science Foundation of Heilongjiang Province, and the Special Postdoctoral Fellowship from the China Postdoctoral Science Foundation. Her doctoral research received the Outstanding Doctoral Dissertation Award from the China Education Society of Electronics and HIT. She currently serves as Secretary of the IEEE ComSoc Harbin Chapter. Her current research interests include wireless communication and networking technologies, reconfigurable intelligent surfaces, ultra-dense networks, and the application of artificial intelligence in future wireless networks.

Speaker 2 | Feng Wang, Singapore University of Technology and Design, Singapore



Presentation Title: Mobility Management from NTN to TN-NTN Integration

Bio.: Feng Wang (Member, IEEE) received the B.S. and Ph.D. degrees from University of Electronic Science and Technology of China (UESTC) in 2016 and 2022, respectively. He is currently a Research Fellow with Information Systems Technology and Design Pillar at the Singapore University of Technology and Design (SUTD), where he was an International Research Visitor from September 2021 to September 2022. His research interests include non-terrestrial networking, space optical communications, and TN-NTN service orchestration.

Speaker 3 | Qian Chen, The University of Hong Kong, China



Presentation Title: An Infrastructure-free Federated Learning Framework in Space-ground Integrated Networks

Bio.: Qian Chen (Member, IEEE) received her B.E. and Ph.D. degrees in Information and Communication Engineering from Harbin Institute of Technology (HIT) in 2018 and 2023, respectively. She is currently a postdoctoral research fellow in the Department of Electrical and Electronic Engineering at the University of Hong Kong. Dr. Chen has been awarded several honors, including the National Scholarship, Outstanding Graduate of Heilongjiang Province and HIT, and the CSC Scholarship. Her doctoral research received the Excellent Doctoral Thesis Nomination Award by the China Education Society of Electronics. Her primary research interests include space-air-ground integrated networks and edge intelligence. She has served as the Student Chair of the IEEE ComSoc Harbin Chapter, Publication Chair for EAI WISATS 2024, and Youth Editorial Board Member of the Journal of Information and Intelligence.

Tutorials

Tutorials 2: Demystifying 6G AI-RAN: A New Paradigm for Intent-Driven Networking and Edge AI Services

Corresponding Author: Tony Q. S. Quek, Singapore University of Technology and Design (SUTD), Singapore

13:30-16:30 | Oct. 17, 2025 | Zoom

Name	Affiliation
Howard H. Yang	Zhejiang University, China
Chenyuan Feng	University of Exeter, U.K.
Zihan Chen	Singapore University of Technology and Design (SUTD), Singapore

Corresponding Author | Tony Q. S. Quek, Singapore University of Technology and Design (SUTD), Singapore



Bio.: Tony Q. S. Quek received the B.E. and M.E. degrees from the Tokyo Institute of Technology in 1998 and 2000, respectively, and the Ph.D. degree from the Massachusetts Institute of Technology (MIT) in 2008. Currently, he is the Associate Provost for AI and Digital Innovation at Singapore University of Technology and Design (SUTD), the Director of the Future Communications R&D Programme. His research topics include wireless communications, network intelligence, non-terrestrial networks, open radio access network, and 6G. Dr. Quek was honored with 2008 Philip Yeo Prize for Outstanding Achievement in Research, 2012 IEEE William R. Bennett Prize, 2016 IEEE Signal Processing Society Young Author Best Paper Award, 2017 IEEE ComSoc AP Outstanding Paper Award, 2020 IEEE Communications Society Young Author Best Paper Award, 2020 IEEE Stephen O. Rice Prize and 2022 IEEE Signal Processing Society Best Paper Award. He is AI-on-RAN Working Group Chair in AI-RAN Alliance.

Speaker 1 | Howard H. Yang, Zhejiang University, China



Presentation Title: A Tale of Interference in Distributed Machine Learning Over-the-Air

Bio.: Howard H. Yang received the B.E. degree from Harbin Institute of Technology (HIT), China, in 2012, the M.Sc. degree from Hong Kong University of Science and Technology (HKUST), Hong Kong, in 2013, and the Ph.D. degree from Singapore University of Technology and Design (SUTD), Singapore, in 2017. Currently, he is an assistant professor of Zhejiang University, and an adjunct assistant professor at the University of Illinois Urbana-Champaign, IL, USA. His research interests include modeling of modern wireless networks, high dimensional statistics, graph signal processing, and machine learning. He serves as an Associate Editor for the IEEE Transactions on Wireless Communications and an Editor-at-Large for the IEEE Open Journal of The Communications Society. He received the IEEE ComSoc Asia-Pacific Outstanding Young Researcher Award in 2023, the IEEE Signal Processing Society Best Paper Award in 2022, the IEEE WCSP 10-Year Anniversary Excellent Paper Award in 2019, and the IEEE WCSP Best Paper Award in 2014.

Speaker 2 | Chenyuan Feng, University of Exeter, U.K.



Presentation Title: Toward 6G Native-AI RAN: A Semantic and Agentic Perspective

Bio.: Chenyuan Feng received the B.E. degree from the University of Electronic Science and Technology of China (UESTC), China, in 2016, and the Ph.D. degree from Singapore University of Technology and Design (SUTD), Singapore, in 2021, respectively. Currently, she is a research fellow at Department of Computer Science, University of Exeter, U.K.. Her research interests include edge intelligence and in-network AI. She is a recipient of 2021 IEEE ComComAp Best Paper Award, 2024 IEEE ICCT Best Paper Award, and 2025 IEEE ICCCS 10th Anniversary Best Paper Award. Dr. Feng delivered several tutorials and invited talks at International conferences, such as IEEE PIMRC'24, IEEE VCC'24, IEEE ICCT'22,

ICCT'24 and IEEE VTC-Spring'25. Dr. Feng serves as an Associate Editor for the IEEE Internet of Things Journal and the IEEE Open Journal of the Communications Society. Dr. Feng is a Marie Skłodowska-Curie Scholar and 6G Rising Star Young Scientist.

Speaker 3 | Zihan Chen, Singapore University of Technology and Design (SUTD), Singapore



Presentation Title: Efficient and Scalable Distributed LLM fine-tuning within AI-RAN

Bio.: Zihan Chen received the B.Eng. degree in Communication Engineering from the Yingcai Honors College at the University of Electronic Science and Technology of China (UESTC) in 2018. He received his Ph.D. degree from the Singapore University of Technology and Design (SUTD)- National University of Singapore (NUS) Joint Ph.D. Program in 2022. Currently, he is a Postdoctoral Research Fellow at SUTD. His research mainly focuses on network intelligence, machine learning, and semantic communication.

Tutorials

Tutorials 3: AI-Native RAN-based Terminal-Edge-Cloud collaboration towards 6G

Corresponding Author: Tony Q. S. Quek, Singapore University of Technology and Design (SUTD), Singapore

14:00-17:00 | Oct. 16, 2025 | Function Room 5

Name	Affiliation
Qingtian Wang	China Telecom, China
Chengyu Liu	China Telecom, China
Longyu Zhou	Singapore University of Technology and Design, Singapore

Corresponding Author | Tony Q. S. Quek, Singapore University of Technology and Design (SUTD), Singapore



Bio.: Tony Q. S. Quek received the B.E. and M.E. degrees from the Tokyo Institute of Technology in 1998 and 2000, respectively, and the Ph.D. degree from the Massachusetts Institute of Technology (MIT) in 2008. Currently, he is the Associate Provost for AI and Digital Innovation at Singapore University of Technology and Design (SUTD), the Director of the Future Communications R&D Programme. His research topics include wireless communications, network intelligence, non-terrestrial networks, open radio access network, and 6G. Dr. Quek was honored with 2008 Philip Yeo Prize for Outstanding Achievement in Research, 2012 IEEE William R. Bennett Prize, 2016 IEEE Signal Processing Society Young Author Best Paper Award, 2017 IEEE ComSoc AP Outstanding Paper Award, 2020 IEEE Communications Society Young Author Best Paper Award, 2020 IEEE Stephen O. Rice Prize and 2022 IEEE Signal Processing Society Best Paper Award. He is AI-on-RAN Working Group Chair in AI-RAN Alliance.

Speaker 1 | Qingtian Wang, China Telecom, China



Presentation Title: What's Will AI-Native RAN Do for the Upcoming 6G?

Bio.: Qingtian Wang received the Ph.D. degree from Beijing University of Posts and Telecommunications, Beijing, China, in 2020. He is a Senior Research Engineer with the 6G Research Center, China Telecom Research Institute, Beijing. He also serves as the Co-Chair of the Next Generation Research Group, O-RAN. His current research is on AI-Native RAN, intelligence network, native AI, programmable RAN, LEO, Internet of Things, and 6G.

Speaker 2 | Chengyu Liu, China Telecom, China



Presentation Title: High-quality Dataset Construction for Wireless AI

Bio.: Chengyu Liu received the master's degree from the School of Information and Communication Engineering, Beijing University of Posts and Telecommunications in 2014. He is currently a research engineer at China Telecom Research Institute, specializing in wireless networks and data intelligentization. Previously, he had over 10 years of research and development experience in 4G and 5G network architectures, RAN cloudification technologies, and high-performance software. His current interests lie in the convergence of cloud technology, AI and RAN.

Speaker 3 | Longyu Zhou, Singapore University of Technology and Design, Singapore



Presentation Title: Towards Intelligent and Scalable Systems for Low-Altitude 6G UAV Networks

Bio.: Longyu Zhou received the Ph.D degree with a MD-PhD program in the School of Information and Communication Engineering from University of Electronic Science and Technology of China (UESTC) in 2023. He is currently a Research Fellow working in Information Systems Technology and Design Pillar at Singapore University of Technology and Design. He also worked in Embedded Systems (ES) group, Delft University of Technology, the Netherlands, as a visiting Ph.D. His interests include Digital Twins, AI-RAN, and UAV networks.



Technical Sessions

Session 1: Mobile and Wireless Networks

Chair: **Jun Li**, Guangzhou University, China

13:30-15:20 | Oct. 17, 2025 | Function Room 1

Invited Speaker | 13:30-13:50



Tianming Ma, Shanghai University of Engineering Science, China

Speech Title: Rate-Optimized Resource Allocation in Downlink RIS-assisted MU-MISO-IFDM Configuration with NOMA Protocol

Time	Presentation
13:50-14:05 CT4389	Paper Title: Adaptive RAN Slicing for Diffusion-Based AIGC Services in Mobile Edge Networks Author(s): Keyuan Shang, Wen Wu, Jianhua Tang, Jiayi Cong, Zhi Mao and Xuemin Shen Presenter: Keyuan Shang, Pengcheng Laboratory, China
14:05-14:20 CT4373	Paper Title: An Environment-Aware Digital-Twin Online Channel Modeling Platform for Indoor Scenarios Author(s): Mingchuan Yao, Xingyao Shangguan, Shiyu Xiao, Tianrun Qi, Junling Li, Chen Huang and Chengxiang Wang Presenter: Mingchuan Yao, Southeast University, China
14:20-14:35 CT4384	Paper Title: Proactive Antenna Trajectory Optimization for Continuous User Tracking in 6D Movable Antenna Systems Author(s): Ruijin Sun, Shuangyu Yang, Nan Cheng, Chuan Deng and Conghao Zhou Presenter: Shuangyu Yang, Xidian University, China
14:35-14:50 CT3285	Paper Title: Energy-Efficient Maritime Communications via SIM-Equipped UAV: A Joint Optimization Approach Author(s): Xia Zhong, Bin Lin, Hongyang Pan, Wenxuan Ma, Mingyang Pan Presenter: Xia Zhong, Dalian Maritime University, China
14:50-15:05 CT2099	Paper Title: Spatiotemporal Prediction of Wireless Network Traffic Based on Multi-Task Deep Learning Author(s): Yingzhe Li, Bo Sun, Tianyu Huang, Xuanning Du, Yingqi Li, Xiaochuan Sun Presenter: Yingzhe Li, North China University of Science and Technology, China
15:05-15:20 CT3314	Paper Title: Mission-Oriented UAV Relay Deployment: Ensuring Reliability in Multi-Task Networks Author(s): Yuanyao Li, Jinghong Sun, Wenbin Guo Presenter: Yuanyao Li, Beijing University of Posts and Telecommunications, China

Technical Sessions

Session 2: Optical Communications and Networks

Chair: **Yongcheng Li**, Soochow University, China

13:30-15:10 | Oct. 17, 2025 | Function Room 3

Invited Speaker | 13:30-13:50



Yongcheng Li, Soochow University, China

Speech Title: Cost-Efficient High-Degree Optical Cross-Connect (OXC) Based on AWGRs and WSSs

Invited Speaker | 13:50-14:10



Bitao Pan, Beijing University of Posts and Telecommunications, China

Speech Title: An Electrical-Optical Interface for PCIe Interconnecting in Optical Switching Data Centers

Invited Speaker | 14:10-14:30



Chao Li, Pengcheng Laboratory, China

Speech Title: Bridging High-Capacity IM/DD Optical Interconnects in Anti-Resonate Hollow-Core-Fiber with 200Gb/s/ λ and beyond

Invited Speaker | 14:30-14:50



Jian Zhao, South China University of Technology, China

Speech Title: SDN-Controlled Multi-User NOMA-OFDM VLC System with BER-Analysis-Based Adaptive Bit-and-Power Loading

Invited Speaker | 14:50-15:10



Zuqing Zhu, University of Science and Technology of China, China

Speech Title: TPE-enabled Proactive Scheduling of Collective Communications in OCS-based DCNs

Technical Sessions

Session 3: Integrated Sensing and Communication

Chair: **Lei Li**, The Chinese University of Hong Kong, Shenzhen, China

13:30-15:25 | Oct. 17, 2025 | Function Room 4

Invited Speaker | 13:30-13:50



Lei Li, The Chinese University of Hong Kong, Shenzhen, China

Speech Title: Beamforming Optimization for Robust Sensing and Communication in Dynamic MmWave MIMO Networks

Invited Speaker | 13:50-14:10



Jie Huang, Southeast University, China

Speech Title: Channel Measurements and Modeling for RIS-Assisted 6G Wireless Communication Systems

Time	Presentation
14:10-14:25 CT2116	Paper Title: Energy-Efficient IRS-Aided Integrated Sensing, Communication, and Powering Transfer Author(s): Gerile Ge, Xueyan Cao, Shubin Wang, Jun Cui Presenter: Gerile Ge , Inner Mongolia University, China
14:25-14:40 CT4338	Paper Title: Multi-Target Association and Tracking in WiFi Sensing Systems via Neural Networks Author(s): Hailin Zhang, Zijun Han, Zhaoming Lu, Shuang Zhou and Jingbo Zhao Presenter: Hailin Zhang , Beijing University of Posts and Telecommunications, China
14:40-14:55 CT4357	Paper Title: AoS-Driven Beam Scheduling and Power Allocation for ISAC V2X via Lyapunov Optimization Author(s): Nan Jiang, Wenhua Wang, Hangguan Shan, Fen Hou Presenter: Nan Jiang , Zhejiang University, China
14:55-15:10 CT2141	Paper Title: Transfer Learning Enabled Human Imaging in RIS-Aided Communication Systems Author(s): Ruijie Fan, Yixuan Huang, Zhou He, Jie Yang and Shi Jin Presenter: Ruijie Fan , Southeast University, China
15:10-15:25 CT2143	Paper Title: Multi-Satellite Cooperative Interference Sensing Based on Confidence-Driven Hierarchical Detection Author(s): Tao Guan, Junnan Li, Sili Liu, Qi Wang and Kaili Cui Presenter: Tao Guan , National University of Defense Technology, China

Technical Sessions

Session 4: Integrated Sensing and Communication

Chair: **Yan Li**, University of Electronic Science and Technology of China, China

13:30-15:05 | Oct. 17, 2025 | Function Room 5

Invited Speaker | 13:30-13:50



Yan Li, University of Electronic Science and Technology of China, China
Speech Title: Transmit Folding for Efficient Quantization in F-ISAC Systems

Time	Presentation
13:50-14:05 CT1029	Paper Title: UE-Assisted Multistatic Cooperative Localization in 6G Mobile Network Author(s): Wenxiao Guo, Zixiang Han, Jing Jin, Jingbo Tan, Qixing Wang, Guangyi Liu and Jintao Wang Presenter: Zixiang Han, China Mobile Research Institute, China
14:05-14:20 CT1006	Paper Title: A Variable-Weight Fit Bin Packing Algorithm for Spectrum Allocation Optimization in Low-Altitude Aerial Vehicle Systems Author(s): Tian Gang, Pan Zhiwen, Xing Wenge and Chen Guangyuan Presenter: Tian Gang, Nanjing Research Institute of Electronics Technology, China
14:20-14:35 CT2180	Paper Title: Beamforming and Rate-Splitting Design for Target Sensing and Finite Blocklength Communications Author(s): Yu Chen, Tiantian Li, Yingzhou Huang, Jie Tian and Mingqiang Zhang Presenter: Yu Chen, Shandong Normal University, China
14:35-14:50 CT3250	Paper Title: A Novel Base Station Sensing Performance Testing Scheme Based on Programmable Phase-Shifting and Attenuation Matrix Author(s): Yuhang Guo, Feilong Wang, Xu Chen, Zhiqin Wang and Xiaolong Liu Presenter: Yuhang Guo, China Academy of Information and Communications Technology, China
14:50-15:05 CT1011	Paper Title: Data Fusion for Target Positioning in Multistatic Joint Sensing and Communication System Author(s): Zixiang Han, Yahui Xue, Jing Jin, Qixing Wang and Guangyi Liu Presenter: Zixiang Han, China Mobile Research Institute, China

Technical Sessions

Session 5: AI for Communications and Networks

Chair: **Bo Li**, Ningxia University, China

13:30-15:25 | Oct. 17, 2025 | Function Room 6

Invited Speaker | 13:30-13:50



Wenchao Xia, Nanjing University of Posts and Telecommunications, China
Speech Title: Research on Distributed Multi-point Cooperative ISAC Technology for Mobile IoT

Invited Speaker | 13:50-14:10



Xiaoying Tang, The Chinese University of Hong Kong, Shenzhen, China
Speech Title: DELTA and Beyond: Optimizing Federated Learning for Efficiency and Scalability

Time	Presentation
14:10-14:25 CT2183	Paper Title: Dynamical Multimodal Fusion with Mixture-of-Experts for Localizations Author(s): Bohao Wang, Zitao Shuai, Fenghao Zhu, Chongwen Huang and Yongliang Shen, Richeng Jin, Zhaoyang Zhang, Qianqian Yang, Sami Muhaidat and Merouane Debbah Presenter: Chongwen Huang , Zhejiang University, China
14:25-14:40 CT3259	Paper Title: Review on Dynamic Alignment Challenges and Reinforcement Learning-Based Solutions in UAV-FSO Communications Author(s): Cunqian Yu, Yuhang Zhuang and Wei Zhao Presenter: Cunqian Yu , Shenyang Aerospace University, China
14:40-14:55 CT1049	Paper Title: An LLM-Based Intent-Driven Framework for Automated Routing Configuration Author(s): Handa Xia, Wen Zhan, Guoqiang Zhou and Xinghua Sun Presenter: Handa Xia , Sun Yat-sen University, China
14:55-15:10 CT3234	Paper Title: Causal Multiscale Convolution and Hierarchical Attention Transformer Based Structure for Automatic Modulation Classification Author(s): Hengbo Li, Zheng Dou Presenter: Hengbo Li , Harbin Engineering University, China
15:10-15:25 CT2159	Paper Title: Heuristic Dual Q-Learning Based Radar Anti-Jamming Decision-Making Author(s): Hongwu Xiang, Zhiquan Bai, Yang Chen, Na Li, Xinhong Hao, Jian Dai and Xiaopeng Yan Presenter: Hongwu Xiang , Shandong University, China

Technical Sessions

Session 6: Internet-of-Things & Sensor Networks

Chair: **Xiaobei Zhang**, Shanghai University, China

13:30-15:10 | Oct. 17, 2025 | Function Room 7

Invited Speaker | 13:30-13:50



Ke Zhang, University of Electronic Science and Technology of China, China

Speech Title: Resource-Aware Dual-Granularity Synchronization Strategy for Transportation Digital Twin

Invited Speaker | 13:50-14:10



Chenyuan Feng, University of Exeter, UK

Speech Title: UAV Swarm Tracking in Low-Altitude Economies: A Robust Online Learning-based Control Strategy

Invited Speaker | 14:10-14:30



Kun Guo, East China Normal University, China

Speech Title: Tackling Spatial-Temporal Data Heterogeneity for Federated Continual Learning in Edge Networks

Invited Speaker | 14:30-14:50



Yunkai Wei, University of Electronic Science and Technology of China, China

Speech Title: Data Protection in Internet of Behaviors: A Review

Invited Speaker | 14:50-15:10



Xiaobei Zhang, Shanghai University, China

Speech Title: Recent Advance in Hollow Core Fiber and Applications

Technical Sessions

Session 7: Communication and Information Security

Chair: **Chuanting Zhang**, Shandong University, China

13:30-15:30 | Oct. 17, 2025 | VIP 208

Invited Speaker | 13:30-13:50



Chuanting Zhang, Shandong University, China

Speech Title: Large Foundation Model Empowered Radio Frequency Fingerprinting for Wireless Networks

Invited Speaker | 13:50-14:10



Gang Yang, Information Support Force Engineering University, China

Speech Title: LLM-Empowered Security Testing for Information and Communication Systems

Invited Speaker | 14:10-14:30



Huatao Zhu, Information Support Force Engineering University, China

Speech Title: Research on Reconfigurable Intelligent Surface Assisted Microwave Photonic Covert Communication

Time	Presentation
14:30-14:45 CT2123	Paper Title: Covert Communication Against Active-Passive Collaborative Attacks in Cognitive Radio Networks Author(s): Binbin Tian, Jianqiang Chen and Rui Chen Presenter: Binbin Tian, China Three Gorges University, China
14:45-15:00 CT3327	Paper Title: Outage Probability and Effective Throughput of RIS-Assisted Secure Short-Packet Communications Author(s): Jiawei Lyu, Hui-Ming Wang Presenter: Hui-Ming Wang, Xi'an Jiaotong University, China
15:00-15:15 CT3209	Paper Title: Frequency-Domain Anti-Interference Coding for Cognitive Spectrum-Division Transmission Systems Author(s): Jun Yong, Chao Yang, Wei Ge, Guangwei Li, Jielin Fu and Lin Zheng Presenter: Jun Yong, Guilin University of Electronic Technology, China
15:15-15:30 CT3247	Paper Title: Deep Learning-Aided Beamforming for RIS-Enabled Secure Transmission Author(s): Ruikai Miao, Zhiqun Song, Yong Li, Xingjian Li, Lizhe Liu, Guoyuan Shao and Bin Wang Presenter: Ruikai Miao, The 54th Research Institute of CETC, China

Technical Sessions

Session 8: Optical Communications and Networks

Chair: **Yixiao Zhu**, Shanghai Jiao Tong University, China

13:30-15:10 | Oct. 17, 2025 | VIP 209

Invited Speaker | 13:30-13:50



Yixiao Zhu, Shanghai Jiao Tong University, China

Speech Title: Radio-over-Fiber Fronthaul Leveraging Dispersion

Invited Speaker | 13:50-14:10



Zhaopeng Xu, Pengcheng Laboratory, China

Speech Title: High-speed low-cost IM/DD optical interconnects enabled by advanced DSP

Time	Presentation
14:10-14:25 CT1017	Paper Title: Enhancing Network Simulation with Container: A Scalable and Real-Time Supported Platform Author(s): Meiyu Liu, Bo Yi, Lei Huang, Xu Yan, Jiaying Wang, Ruoxuan Yan and Xingwei Wang Presenter: Meiyu Liu, Northeastern University, China
14:25-14:40 CT1065	Paper Title: Implementation of the Networking and Collaboration Scheme for the 6G Distributed Autonomous Network Author(s): Siqi Wang, Pin Lü*, Shuoming Zhang, Xiaohua Chang, Chao Liu, Nanxiang Shi and Feiyu Jiang Presenter: Shuoming Zhang, China Mobile Research Institute, China
14:40-14:55 CT4376	Paper Title: Low-Complexity Perturbation-Based Fiber Nonlinearity Compensation for High-Speed Optical Coherent Systems Author(s): Wanzhen Guo, Xuan Tang, Zhaoquan Fan and Jian Zhao Presenter: Wanzhen Guo, South China University of Technology, China
14:55-15:10 CT3287	Paper Title: A Low Complexity C-Transform Based OFDM with LDPC Codes Author(s): Tongqi Sun, Martin Johnston and Jumamah Abdulwali Presenter: Tongqi Sun, Newcastle University, United Kingdom

Technical Sessions

Session 9: Green Communication Systems & Networks

Chair: **Liwei Yang**, China Agricultural University, China

16:00-17:20 | Oct. 17, 2025 | Function Room 1

Invited Speaker | 16:00-16:20



Liwei Yang, China Agricultural University, China

Speech Title: Resource Management for VLC/WiFi Heterogeneous Networks Based on Adaptive Weighted Round-Robin (AWRR)

Time	Presentation
16:20-16:35 CT3193	Paper Title: Share It, or Not: A Quantum Secret Sharing Approach for Biometric Information Author(s): Gabriela Mogos and Ho-Pun Lam Presenter: Gabriela Mogos, College of Information Engineering, China
16:35-16:50 CT1028	Paper Title: On Optimal Energy Efficiency in Low-Rate Wireless Personal Area Networks Author(s): Anshan Yuan, Xinghua Sun, Wen Zhan, Yaru Fu and Xiang Chen Presenter: Anshan Yuan, Sun Yat-sen University, China
16:50-17:05 CT4350	Paper Title: Buffer-Aided Semi-Asynchronous Federated Learning Author(s): Bin Yang, Xuan Liang, Jianhua Tang and Marie Siew Presenter: Jianhua Tang, South China University of Technology, China
17:05-17:20 CT4363	Paper Title: Efficient Multi-User Hybrid Precoding and Combining for mmWave Massive MIMO Systems Author(s): Kaijie Zeng, Yuanli Ma, Bin Yan, Zheng Wang and Yili Xia Presenter: Kaijie Zeng, Southeast University, China

Technical Sessions

Session 10: Signal Processing for Communications

Chair: **Tianming Ma**, Shanghai University of Engineering Science, China

16:00-17:40 | Oct. 17, 2025 | Function Room 3

Invited Speaker | 16:00-16:20



Yuanyuan Wu, Chengdu University of Technology, China

Speech Title: Research on Fine-Grained Image Recognition Based on Collaboration of Large and Small Models

Invited Speaker | 16:20-16:40



Hongwei Wang, University of Electronic Science and Technology of China, China

Speech Title: Near/Far-Field Channel Estimation for Millimeter wave/Terahertz Systems with ELAAs: A Block-Sparsity-Aware Approach

Time	Presentation
16:40-16:55 CT3309	Paper Title: Deep Reinforcement Learning-Based Bandwidth Allocation for Collaborative Sensing Towards Closed-Loop Control Author(s): Chengleyang Lei, Wei Feng, Yongxu Zhu, Yunfei Chen and Ning Ge Presenter: Chengleyang Lei, Tsinghua University, China
16:55-17:10 CT3200	Paper Title: LoRa Collision Decoding Algorithm Based on Multi-Symbol Peak Phase Consistency Author(s): Jiajia Chen, Lin Zheng, Chao Yang, Zhenghong Liu and Yuwei Su Presenter: Jiajia Chen, Guilin University of Electronic Technology, China
17:10-17:25 CT2094	Paper Title: Carbon Efficiency Optimization of Distributed FVLC Systems Based on Power-over-Fiber Author(s): Lisu Yu, Jianwei Yuan, Chen Liu, Zhenghai Wang and Yuhao Wang Presenter: Jianwei Yuan, Nanchang University, China
17:25-17:40 CT5399	Paper Title: De-Noising Curriculum Learning Assisted Prototype Classifier for UAVs with Imbalanced Samples Author(s): Jiaqi Wang, Wei Wang, Mingjie Wang and Dairu Han Presenter: Jiaqi Wang, Nanjing University of Aeronautics and Astronautics, China

Technical Sessions

Session 11: Space-Air-Ground Communication and Space Networking

Chair: **Dongdong Wang**, National Key Laboratory of Advanced Communication Network Technology, China

16:00-17:35 | Oct. 17, 2025 | Function Room 4

Invited Speaker | 16:00-16:20



Dongdong Wang, National Key Laboratory of Advanced Communication Network Technology, China

Speech Title: Architecture Design: Received Power-Enhanced Transmission on Mobile User Side based on Carrier Coherent Superposition

Time	Presentation
16:20-16:35 CT1079	Paper Title: Analysis of Robustness Against Node Attacks in Mega-Constellation Networks Author(s): Siyue Lu, Xianyang Liu, Shiqing Peng, Weifeng Zeng, Mingze Li, Xin Xu* Presenter: Xianyang Liu , PLA Army Engineering University, China
16:35-16:50 CT3302	Paper Title: Attentive Routing: Feasible Routing via Communication-Aware Attention in LEO Satellite Networks Author(s): Xiujie Wang, Lizhe Liu, Bin Wang, Jianwei Li, Yuxiang Hu and Dongdong Wang Presenter: Xiujie Wang , Academy for Network and Communications of CETC, China
16:50-17:05 CT2114	Paper Title: Modeling and Coverage Analysis of Stereoscopic Marine Monitoring Networks Author(s): Xu Hu, Bin Lin, Shuang Qi, Xingao Mei, Mingyang Pan Presenter: Xu Hu , Dalian Maritime University, China
17:05-17:20 CT3186	Paper Title: Channel Measurement and Path Loss Characterization for UWB Channels Author(s): Yuxin Yang, Qingchi Qin, Taiya Lei, Mingqi Guo, Boyu Hua, Qiuming Zhu and César Briso-Rodríguez Presenter: Yuxin Yang , Nanjing University of Aeronautics and Astronautics, China
17:20-17:35 CT3208	Paper Title: Anti-Interference Enhancement Design of the Synchronization Signal Burst Set in LEO-Based Non-Terrestrial Networks Author(s): Zixi Fang, Tian Li, Shilei Shan and Chenhua Sun Presenter: Zixi Fang , Academy for Network & Communications of CETC, China

Technical Sessions

Session 12: Cloud and Edge Computing

Chair: **Long Luo**, University of Electronic Science and Technology of China, China

16:00-17:20 Oct. 17, 2025 | Function Room 5

Invited Speaker | 16:00-16:20



Long Luo, University of Electronic Science and Technology of China, China
Speech Title: Simulation-Guided Strategy Generation for Intent-Aware Distributed LLMs Training

Time	Presentation
16:20-16:35 CT2163	Paper Title: A Cooperative Computation Offloading Strategy for Reusable Tasks in the Multi-UAV-Assisted MEC System Author(s): Wenqing Wu, Shie Wu, Hanchao Mu and Jiahui Chen Presenter: Wenqing Wu, Yantai University, China
16:35-16:50 CT1067	Paper Title: An Efficient Betweenness Centrality Algorithm Based on Sampling Strategy Author(s): Huaixi Wang, Chen Wang, Xuanling Feng, Dongxu Guo, Shuiqing Tan and Yi Wang Presenter: Xuanling Feng, National University of Defense Technology, China
16:50-17:05 CT4367	Paper Title: RADIUSGuard: A Kubernetes-Native Load Balancer for RADIUS Authentication Author(s): Jui-Hsuan Chang Presenter: Jui-Hsuan Chang, National Tsing Hua University, China Taiwan
17:05-17:20 CT4336	Paper Title: Attention Mechanism-based Knowledge-Defined Networking for Emergency Task Scheduling in Mobile Edge Computing Author(s): Qiang He, Weihao Wei, Kaifa Zheng, Ammar Hawbani, Xiushuang Yi, Liang Zhao and Chuangchuang Zhang Presenter: Weihao Wei, Northeastern University, China

Technical Sessions

Session 13: Internet-of-Things & Sensor Networks

Chair: **Zhiqing Tang**, Beijing Normal University, China

16:00-17:35 | Oct. 17, 2025 | Function Room 6

Invited Speaker | 16:00-16:20



Zhiqing Tang, Beijing Normal University, China

Speech Title: Adaptive AI Agent Placement and Migration in Edge Intelligence Systems

Time	Presentation
16:20-16:35 CT4383	Paper Title: Simulation-Driven Analysis of AI-RAN Enabled Cooperative Content Delivery in Vehicular Networks Author(s): Chenyuan Feng, Zhenyu Feng, Jiaxi Yang and Tony Quek Presenter: Chenyuan Feng, University of Exeter, UK
16:35-16:50 CT3297	Paper Title: Energy Efficient and Privacy Preserving Federated Split Learning for Medical Internet of Behaviors Author(s): Yinan Xiao, Yuxuan Wang, Yunkai Wei and Supeng Leng Presenter: Fenghua Li, University of Electronic Science and Technology of China, China
16:50-17:05 CT2127	Paper Title: Optimized Simultaneous Wireless Information and Power Transfer System Design for κ-μ Fading Channels in 6G IoT Wireless Sensor Networks Author(s): Youyang Xiang, Xianglu Li, Qilong Du, Zhijiang Huang, Luchi Li, Zhengyu Ji and Jie Tian Presenter: Youyang Xiang, Institute of Electronic Engineering, China
17:05-17:20 CT3274	Paper Title: Resource Optimization for Latency-Sensitive Tasks in Navigation Assistance Author(s): Yutong Jiang, Bin Lin, Miyuan Zhang, Haobo Xu, Zhongming Xiao and Mingyang Pan Presenter: Yutong Jiang, Dalian Maritime University, China
17:20-17:35 CT3252	Paper Title: Energy-Efficient and Low-Latency Convergent Split Learning in Artificial Intelligence of Things Author(s): Fenghua Li, Yinan Xiao, Yunkai Wei and Supeng Leng Presenter: Fenghua Li, University of Electronic Science and Technology of China, China

Technical Sessions

Session 14: Internet-of-Things & Sensor Networks

Chair: **Tianshun Wang**, Nanjing University of Posts and Telecommunications, China

16:00-17:40 | Oct. 17, 2025 | Function Room 7

Invited Speaker | 16:00-16:20



Tao Zhang, The Sixty-third Research Institute of National University of Defense Technology, China

Speech Title: An Open-Set Few-Shot Class Incremental Learning Framework for Specific Emitter Identification

Invited Speaker | 16:20-16:40



Tianshun Wang, Nanjing University of Posts and Telecommunications, China

Speech Title: Compression Meets Security: Low-Complexity Linear Collaborative Federated Learning with Enhanced Accuracy

Time	Presentation
16:40-16:55 CT3217	Paper Title: AirComp Enabled Adaptive Power Control and Loop Scheduling for Industrial IoT Systems Author(s): Ling Lyu, Ziyi Zhang, Yanpeng Dai, Jindou Xie and Yuhuan Wang Presenter: Ling Lyu, Dalian Maritime University, China
16:55-17:10 CT4393	Paper Title: Low-Complexity Design and Implementation of Image-Sensor Communications for IoT Author(s): Paramin Sangwongngam, Pituk Panthong and Panita Meananeatra Presenter: Paramin Sangwongngam, National Science and Technology Development Agency (NSTDA), Thailand
17:10-17:25 CT1016	Paper Title: SparsLIME: A Sparsity-Optimized and LIMELight-Illuminated Intrusion Detection Framework for Industrial IoT Networks Author(s): Shifa Shoukat, Tianhan Gao, Danish Javeed and Muhammad Adil Presenter: Danish Javeed, College of Artificial Intelligence, China
17:25-17:40 CT3254	Paper Title: Power Splitting Control Based on Polak-Ribiere-Polyak Conjugate Gradient Algorithm in SWIPT-Aided Cooperative NOMA Systems Author(s): Jialong Zeng, Chonghe Xiao, Xinlei Wang, Shilong Xin, Yang Liu and Tianshuang Qiu Presenter: Yang Liu, Inner Mongolia University, China

Technical Sessions

Session 15: Space-Air-Ground Communication and Space Networking

Chair: **Siyu Zhang**, Beijing Information Science and Technology University, China

16:00-17:20 | Oct. 17, 2025 | VIP 208

Invited Speaker | 16:00-16:20



Siyu Zhang, Beijing Information Science and Technology University, China
Speech Title: NOMA-Assisted Beam Hopping System Design for Airborne Platform Communication

Time	Presentation
16:20-16:35 CT5408	Paper Title: Vim-AMC: A Lightweight Model for Automatic Modulation Classification in Low-Altitude Intelligent Networks Author(s): Liding Xu, Bin Qi, Mingyue Si, Wensheng Zhang and Jian Sun Presenter: Liding Xu, Shandong University, China
16:35-16:50 CT4346	Paper Title: Performance Analysis and Simulation of Meteor Burst Communication Adaptive Variable-Speed System Author(s): Lipu Zhu, Zan Li, Haochen Niu, Jia Shi, Lei Guan and Zhuangzhuang Tie Presenter: Lipu Zhu, State Key Laboratory of Integrated Services Networks, China
16:50-17:05 CT3324	Paper Title: Coverage Optimization in RIS-Enabled Satellite-Ground Networks: A Digital Twin-Based Spatial-Temporal Approach Author(s): Qihao Li, Tongzhou Yang, Qiang Ye, Huaqing Wu and Fengye Hu Presenter: Qihao Li, Jilin University, China
17:05-17:20 CT3296	Paper Title: Capacity Comparison of Beam Coverage Modes in LEO Satellite MISO Downlink Author(s): Shuqi Zhang, Hongpeng Zhu, Wenxi He, Wei Huang, Jian Cheng and Guangxia Li Presenter: Shuqi Zhang, Nanjing University of Aeronautics and Astronautics, China

Technical Sessions

Session 16: Space-Air-Ground Communication and Space Networking

Chair: **Bo Li**, Ningxia University, China

16:00-17:20 | Oct. 17, 2025 | VIP 209

Invited Speaker | 16:00-16:20



Feng Wang, Singapore University of Technology and Design (SUTD), Singapore

Speech Title: Breaking Snapshot Barrier: Graph-Based Learning for Reliable NTN Mobility Management

Time	Presentation
16:20-16:35 CT4369	Paper Title: An Appropriate Technical Solution for Terahertz Band Intersatellite Communication Links Author(s): Dongnuan Cui, Weiqian Duan, Tianyu Song and Ruiliang Song Presenter: Dongnuan Cui, The 54th Research Institute of China Electronics Technology Group Corporation, China
16:35-16:50 CT3226	Paper Title: Design of a Task-Driven Image Matching Semantic Communication System for Maritime Low-Altitude Surveillance Author(s): Dongxin Lv, Bin Lin, Xiaoling Han and Mingyang Pan Presenter: Dongxin Lv, Dalian Maritime University, China
16:50-17:05 CT4351	Paper Title: Toward a Low-Altitude Economy: Radio Map-Driven Optimization of Energy Efficiency in Connectivity-Aware Cargo UAVs Author(s): Haixia Peng, Jiangling Cao, Shi Peng, Xiucheng Wang, Tom H. Luan and Zhou Su Presenter: Haixia Peng, Xi'an Jiaotong University, China
17:05-17:20 CT3306	Paper Title: Localization Using Doppler Measurements from LEO Constellation Based Signals of Opportunity Author(s): Jiayi Guo, Hongwei Wang, Xiaofei Long Presenter: Hongwei Wang, University of Electronic Science and Technology of China, China

Technical Sessions

Session 17: Integrated Sensing and Communication

Chair: **Mengyuan Ye**, China University of Geosciences, China

13:30-15:05 | Oct. 18, 2025 | Function Room 1

Invited Speaker | 13:30-13:50



Mengyuan Ye, China University of Geosciences, China
Speech Title: **Silicon Integrated Multimode Components**

Time	Presentation
13:50-14:05 CT5405	Paper Title: High-Accuracy Wi-Fi Ranging via Joint FTM-CSI Processing and Super-Resolution ToF Estimation Author(s): Shikun Yao, Jian Sun, Feiyu Wang, Hengtai Chang, Wensheng Zhang and Cheng-Xiang Wang Presenter: Shikun Yao, Shandong University, China
14:05-14:20 CT4354	Paper Title: Low-Complexity Protocol-Aware Subspace Scheduling for Massive IoT Author(s): Heng-Wei Lou, Shao-Di Wang, Chang-Long Wang and Feng Zhou Presenter: Heng-Wei Lou, Xidian University, China
14:20-14:35 CT2179	Paper Title: Transitional Scenario Channel Characteristics Analysis for 6G Wireless Communications Author(s): Shenghan Luo, Jiale Huang, Ziyao Xie, Zhejing Zhao, Jun Wang, Zhen Lv, Jie Huang and Cheng-Xiang Wang Presenter: Jie Huang, Southeast University, China
14:35-14:50 CT5409	Paper Title: Multi-Agent Proximal Policy Optimization for Dynamic Spectrum Access in Low-Altitude Intelligent Networks Author(s): Jinlong Wu, Bin Qi, Wensheng Zhang, Jian Sun and Hengtai Chang Presenter: Jinlong Wu, Shandong University, China
14:50-15:05 CT904	Paper Title: Reinforcement Learning-Assisted Expert Offloading for Low-Latency MoE on Edge Computing Author(s): Gaosheng Xu, Yuchen Shi, Jiangwei Liu, Kangqi Xiao, Guixin Pan, Xiaoning Zhang and Rongping Lin Presenter: Kangqi Xiao, University of Electronic Science and Technology of China, China

Technical Sessions

Session 18: Reconfigurable Intelligent Surfaces

Chair: **Xufang Wang**, Fujian Normal University, China

13:30-15:05 | Oct. 18, 2025 | Function Room 3

Invited Speaker | 13:30-13:50



Xufang Wang, Fujian Normal University, China

Speech Title: Transmission Rate Optimization for Multi-RIS-Assisted Terahertz Holographic Communication

Time	Presentation
13:50-14:05 CT2117	Paper Title: Performance Analysis for IRS-Assisted Wireless Communication and Power Transfer Author(s): Fei Xu, Xueyan Cao, Gerile Ge and Shuqi Li Presenter: Fei Xu , Inner Mongolia University, China
14:05-14:20 CT1044	Paper Title: Dual-Function IRS-Aided Integrated Sensing, Communication, and Power Transfer Author(s): Gerile Ge, Xueyan Cao, Shubin Wang and Jun Cui Presenter: Gerile Ge , Inner Mongolia University, China
14:20-14:35 CT1055	Paper Title: Modeling and Coverage Analysis of Collaboration-Based Perception in RIS-Assisted Vehicular Networks Author(s): Mingyang Zhang, Xiaoshi Song and Chang Xi Presenter: Mingyang Zhang , Northeastern University, China
14:35-14:50 CT3331	Paper Title: Joint Beamforming Based Security Rate Optimization for RIS-Assisted ISAC System Author(s): Xin Fang, Zhiquan Bai, Yuan Sun, Feng Cao and Dongfeng Yuan Presenter: Xin Fang , Shandong University, China
14:50-15:05 CT3290	Paper Title: Dynamic Metasurface Antennas-Based Beamforming for Holographic MIMO Systems Author(s): Yuanli Ma, Bin Yan, Zheng Wang and Yongming Huang Presenter: Yuanli Ma , Southeast University, China

Technical Sessions

Session 19: Reconfigurable Intelligent Surfaces

Chair: **Chao Fang**, Beijing University of Technology, China

13:30-15:05 | Oct. 18, 2025 | Function Room 4

Invited Speaker | 13:30-13:50



Chao Fang, Beijing University of Technology, China

Speech Title: Energy-Efficient Task Offloading for STAR-RIS-Aided Transmission Networks

Time	Presentation
13:50-14:05 CT5406	Paper Title: Low-Complexity Joint Beamforming for RIS-Assisted Broadband Systems Based on Fractional Programming with Complex Circle Manifold Author(s): Zheng Zhang, Jian Sun, Hengtai Chang, Wensheng Zhang and Cheng-Xiang Wang Presenter: Zheng Zhang, Shandong University, China
14:05-14:20 CT4343	Paper Title: Robust Radio Frequency Fingerprinting under Cross-Receiver Conditions via Adaptive Augmentation and Attention Author(s): Jiawen Shao, Weijie Zhang, Tiantian Tang and Guan Gui Presenter: Jiawen Shao, Nanjing University of Posts and Telecommunications, China
14:20-14:35 CT2146	Paper Title: Joint Device Scheduling and Resource Allocation for Hierarchical Federated Learning Jobs in Edge Computing Author(s): Lang Fan, Xiaoning Zhang and Jiayi Jiang Presenter: Lang Fan, University of Electronic Science and Technology of China, China
14:35-14:50 CT2083	Paper Title: User-Centric Detection with Interference and Base Station Connection Sparsities Author(s): Rui Sun, Linfeng Song, Chen Sun, Ding Shi, Xiqi Gao and Xiang-Gen Xia Presenter: Rui Sun, National Mobile Communications Research Laboratory, China
14:50-15:05 CT2177	Paper Title: Research on Wireless Propagation Characteristics and Channel Modeling for 6G Author(s): Zhongqiu Xiang, Xueying Li, Xuecheng Liu, Lei Guo, Fan Chen, Xiaoxiao Sun, Xirui Dang and Jieying Qi Presenter: Zhongqiu Xiang, China Mobile Group Design Institute Co., Ltd., China

Technical Sessions

Session 20: AI for Communications and Networks

Chair: **Congduan Li**, Sun Yat-sen University, China

13:30-15:25 | Oct. 18, 2025 | Function Room 5

Invited Speaker | 13:30-13:50



Chen Huang, Purple Mountain Laboratories & Southeast University, China

Speech Title: Digital Twin Online Channel Modeling for 6G and Beyond

Invited Speaker | 13:50-14:10



Congduan Li, Sun Yat-sen University, China

Speech Title: Tensor-based Carrier Aggregation ISAC for Urban Low-Altitude Airspace: Clutter Suppression

Time	Presentation
14:10-14:25 CT3257	Paper Title: Deep Reinforcement Learning-Based Power Allocation for VR Overlapping XL-MIMO Author(s): Jinxin Guo, Jun Zhang, Qi Zhang, Lizhe Liu and Shuo Yang Presenter: Jinxin Guo, Nanjing University of Posts and Telecommunications, China
14:25-14:40 CT3319	Paper Title: Dynamic Prediction of Maximum Tolerance Time for Computation Tasks with QoE Awareness Author(s): Peichen Li, Xingwei Wang, Bo Yi, Jiahao Chen, Jiaxin Zhang and Min Huang Presenter: Peichen Li, Northeastern University, China
14:40-14:55 CT3276	Paper Title: Robust Beamforming via Graph Neural Networks and Attention Mechanisms for MU-MISO Systems Author(s): Ruichang Li, Weijie Jin, Jing Zhang, Hengtao He, Yong Li and Shi Jin Presenter: Ruichang Li, Southeast University, China
14:55-15:10 CT4362	Paper Title: FLOW: Federated Large Model for Wireless Traffic Prediction Author(s): Ruining Wang, Chuanting Zhang, Haixia Zhang, Liang Zhang, Basem Shihada and Jingping Qiao Presenter: Ruining Wang, Shandong University, China
15:10-15:25 CT3227	Paper Title: Hybrid Optuna-PSO Optimization Algorithm for CatBoost-Based Terahertz Channel Prediction Author(s): Siqi Liu, Xiaoli Yang, Xue Wang, Qi Zang, Tianli Zhang and Yi Zhou Presenter: Siqi Liu, China Telecommunication Technology Lab, China

Technical Sessions

Session 21: Cloud and Edge Computing

Chair: **Bo Li**, Ningxia University, China

13:30-15:10 | Oct. 18, 2025 | Function Room 6

Invited Speaker | 13:30-13:50



Shuai Wang, University of Electronic Science and Technology of China, China

Speech Title: Communication-Efficient Federated Learning by Quantized Variance Reduction for Heterogeneous Wireless Edge Networks

Invited Speaker | 13:50-14:10



Xiaobo Zhou, Tianjin University, China

Speech Title: Real-time Free-Viewpoint Video for Mobile VR via Edge-Client Collaborative Neural Rendering

Invited Speaker | 14:10-14:30



Yan Lin, Nanjing University of Science and Technology, China

Speech Title: User-Centered Virtual Reality Edge Computing Using Multi-Agent Transformer Reinforcement Learning

Invited Speaker | 14:30-14:50



Yanmeng Wang, Nanjing University of Posts and Telecommunications, China

Speech Title: Robust Federated Fine-Tuning over Heterogeneous and Unreliable Communication Networks

Invited Speaker | 14:50-15:10



Yiwei Li, Xiamen University of Technology, China

Speech Title: Differentially Private Federated Clustering over Non-IID Data

Technical Sessions

Session 22: Communication QoS, Reliability & Modeling

Chair: **Shengyu Zhang**, Singapore University of Technology and Design, Singapore

13:30-15:05 | Oct. 18, 2025 | Function room 7

Invited Speaker | 13:30-13:50



Shengyu Zhang, Singapore University of Technology and Design, Singapore
Speech Title: RadioDT: Towards QoS-aware and Reliable Communications in Non-Terrestrial Networks

Time	Presentation
13:50-14:05 CT3236	Paper Title: A Formal Model of Security Capabilities Towards Vendor-Agnostic Channel Protection Author(s): Davide Colaiaicomo, Cataldo Basile Presenter: Davide Colaiaicomo , Politecnico di Torino, Italy
14:05-14:20 CT3243	Paper Title: ARN: Make SRv6 Services Visible to End Users Author(s): Weiqiang Cheng, Feng Yang, Wenying Jiang, Xiaoqiu Zhang, Tingting Han and Geng Zhang Presenter: Feng Yang , China Mobile, China
14:20-14:35 CT2085	Paper Title: Deterministic Resource Allocation for URLLC over Noncoherent Fading Channels Author(s): Guoli Tu, Yuan Zhang Presenter: Guoli Tu , Southeast University, China
14:35-14:50 CT4387	Paper Title: Layered Decoding of DGLDPC Codes Based on a SPC-PC Codes Author(s): Siqi Yu, Zhiping Shi, You Zhang and Wangning Liu Presenter: Siqi Yu , National Key Laboratory of Wireless Communications, China
14:50-15:05 CT2171	Paper Title: Semantic-Aware Lossless Text Compression with Large Language Models for Intelligent Communications Author(s): Ruize Xu, Hui Zhao Presenter: Ruize Xu , Beijing University of Posts and Telecommunications, China

Technical Sessions

Session 23: Aerial Communications, UAV Communications, Vehicular Networks

Chair: **Kaisa Zhang**, Beijing University of Posts and Telecommunications, China

13:30-15:05 | Oct. 18, 2025 | VIP 208

Invited Speaker | 13:30-13:50



Chenxi Liu, Beijing University of Posts and Telecommunications, China

Speech Title: Impacts of Jittering on UAV mmWave Systems: From Communication and Sensing Perspectives

Time	Presentation
13:50-14:05 CT3214	Paper Title: Hierarchical DRL-Based Timeliness Optimization for Integrated Sensing and Communication in Vehicular Networks Author(s): Jindou Xie, Yixuan Liu, Bin Lin, Chang Liu, Ling Lyu and Yunjian Jia Presenter: Jindou Xie, Dalian Maritime University, China
14:05-14:20 CT3270	Paper Title: Age of Information Minimization for Data Collection with Multiple UAVs Cooperation Author(s): Simeng Feng, Jingxiang Yuan, Chenyan Gao, Jinchao Qin, Chao Dong and Qihui Wu Presenter: Jingxiang Yuan, Nanjing University of Aeronautics and Astronautics, China
14:20-14:35 CT2087	Paper Title: Three-Dimensional Time-Varying Channel Modeling and Performance Analysis for UAV-MIMO Wireless Communication Systems in the Terahertz Band Author(s): Kai Zhang, Zhaohui Yang, Zhiqiang Ma, Yongjun Li, Xiang Wang, Qin Tian and Ying Zhang Presenter: Kai Zhang, Air Force Engineering University, China
14:35-14:50 CT3260	Paper Title: Latency Minimization for Multi-AAV-Enabled ISCC Systems with Movable Antenna Author(s): Yiyang Chen, Wenchao Liu, Chunjie Wang, Yinyu Wu, Xuhui Zhang and Yanyan Shen Presenter: Yanyan Shen, Shenzhen Institutes of Advanced Technology, China
14:50-15:05 CT3322	Paper Title: QoS-Aware Integrated Sensing, Communication, and Control with Movable Antenna Author(s): Yike Wang, Zhike Wu, Jiang Chen, Chunjie Wang, Xuhui Zhang, and Yanyan Shen Presenter: Yanyan Shen, Shenzhen Institutes of Advanced Technology, China

Technical Sessions

Session 24: Aerial Communications, UAV Communications, Vehicular Networks

Chair: **Yan Zhang**, Beijing Institute of Technology, China

13:30-14:50 | Oct. 18, 2025 | VIP 209

Invited Speaker | 13:30-13:50



Yan Zhang, Beijing Institute of Technology, China

Speech Title: A LiDAR-Aided Channel Model for UAV-to-Vehicle Communications in Urban Scenarios

Time	Presentation
13:50-14:05 CT3291	Paper Title: A Novel DOA Estimation Method for RIS-Assisted Integrated Sensing and Communication System Author(s): Shuojie Cai, Bin Lin, Haobo Xu, Miyuan Zhang, Sen Li and Jinbo Zhang Presenter: Shuojie Cai, Dalian Maritime University, China
14:05-14:20 CT3265	Paper Title: SCTCNet: A Lightweight Deep Learning Framework for Predictive Beamforming in ISAC-V2I Systems Author(s): Yi Wang, Bin Lin, Wenxuan Ma, Sen Li and Jinbo Zhang Presenter: Yi Wang, Dalian Maritime University, China
14:20-14:35 CT1027	Paper Title: Large-Scale Channel Modeling for UAV Base Station: A Radio Map Method Author(s): Yutian Peng, Yuan Zhan and Ning Ge Presenter: Yutian Peng, Tsinghua University, China
14:35-14:50 CT3292	Paper Title: An Actual Measurement-Based Intelligent Transfer Framework Towards Cross-Altitude KPI Prediction for UAV Communications Author(s): Yutong Sun, Jialin Wang, Zhigang Zhong, Zuoyong Nan, Honghui Xu, Wenbin Li, Rui Ban and Sen Wang Presenter: Yutong Sun, China Information Technology Designing & Consulting Institute Co., Ltd, China

Technical Sessions

Session 25: Signal Processing for Communications

Chair: **Yan Lin**, Nanjing University of Science and Technology, China

16:00-17:40 | Oct. 18, 2025 | Function Room 1

Invited Speaker | 16:00-16:20



Jun Li, Guangzhou University, China

Speech Title: MLP-Mixer Based Signal Detection for MM-OFDM-IM Systems

Invited Speaker | 16:20-16:40



Miaowen Wen, South China University of Technology, China

Speech Title: Affine Frequency Division Multiplexing for 6G Networks

Time	Presentation
16:40-16:55 CT3300	Paper Title: Generalized Dual-Mode Index Modulation Based on OCDM Transmission System Author(s): Jinbang Kong, Zhouhao Li, Fengyi Chang, Shutong Feng, Wei Deng, Yili Xia and Wenjiang Pei Presenter: Jinbang Kong, Southeast University, China
16:55-17:10 CT2115	Paper Title: Enhanced RSS-Based UAV-Assisted Localization Exploiting Spatial Sparsity Author(s): Kai Du, Yueyan Chu, Jinghong Sun, Wenbin Guo Presenter: Kai Du, Beijing University of Posts and Telecommunications, China
17:10-17:25 CT2156	Paper Title: Phase-Modulated Waveform Design for Stimulated Brillouin Scattering Mitigation Author(s): Kangli Zhu, Mingqian Liu Presenter: Kangli Zhu, Xidian University, China
17:25-17:40 CT2092	Paper Title: Channel Estimation Algorithm for OTFS Systems in HF Communications Author(s): Wangtian Yu, Yu Tian, Zhijiao Chen Presenter: Wangtian Yu, College of Electronic Engineering, China

Technical Sessions

Session 26: Signal Processing for Communications

Chair: **Yanqing Xu**, The Chinese University of Hong Kong, Shenzhen, China

16:00-17:45 | Oct. 18, 2025 | Function Room 3

Invited Speaker | 16:00-16:20



Xiaoqiang Hua, National University of Defense Technology, China

Speech Title: Matrix Information Geometry Detectors: Basic Theory and Its Applications

Invited Speaker | 16:20-16:40



Yanqing Xu, The Chinese University of Hong Kong, Shenzhen, China

Speech Title: Pinching-Antenna Systems: A New Paradigm of Flexible Antennas for Next-Generation Wireless Networks

Invited Speaker | 16:40-17:00



Shuai Ma, Pengcheng Laboratory, China

Speech Title: Theory and Key Technologies of Reliable Semantic Communication for 6G

Time	Presentation
17:00-17:15 CT2129	Paper Title: Deep Learning-Based Optimization of Phase-Modulated Waveforms for SBS Mitigation Author(s): Yang Li and Mingqian Liu Presenter: Yang Li, Xidian University, China
17:15-17:30 CT3264	Paper Title: A Self-Attention Aided 2D Generative Adversarial Network for OFDM Signal Generation Author(s): Yang Zhao, Si-Yu Zhang, Yue-Xia Zhang and Hui Zheng Presenter: Yang Zhao, Beijing University of Information Technology, China
17:30-17:45 CT4370	Paper Title: Self-Interference Suppression Using Spectrally-Weighted Digital Predistortion in Dynamic Subband Full Duplex Systems Author(s): Yifan Yang, Haomin Wang, Chunjing Hu and Yong Li Presenter: Yifan Yang, Beijing University of Posts and Telecommunications, China

Technical Sessions

Session 27: Signal Processing for Communications

Chair: **Yiwei Li**, Xiamen University of Technology, China

16:00-17:50 | Oct. 18, 2025 | Function Room 4

Invited Speaker | 16:00-16:20



Ding Wang, Information Engineering University, China

Speech Title: Research on Key Technologies of Cooperative Array Direct Determination for Sea-Air Targets Under Non-Ideal Soenarios

Time	Presentation
16:20-16:35 CT1040	Paper Title: Fibonacci Spherical Sampling in Correlative Interferometer Based DoA Estimation Author(s): Yongxi Liu, Siwei Huo and Ming Zhang Presenter: Yongxi Liu , Xi'an Jiaotong University, China
16:35-16:50 CT2133	Paper Title: Full-Duplex Cooperative Rate-Splitting and Precoding for Finite Blocklength Transmission Author(s): Yu Du, Tiantian Li, Zimeng Li, Jie Tian and Jingping Qiao Presenter: Yu Du , Shandong Normal University, China
16:50-17:05 CT3190	Paper Title: Low-Complexity HNN-Based MMSE Detectors for MIMO-OCDF Systems Author(s): Yueting Lu, Tengxiao Wang, Zhouhao Li, Yili Xia and Wenjiang Pei Presenter: Yueting Lu , Southeast University, China
17:05-17:20 CT3294	Paper Title: A Novel PSO-Kaczmarz Algorithm for Efficient Self-Interference Cancellation in ISAC Author(s): Yuxin Shen, Bin Lin, Miyuan Zhang, Sen Li, Zihao Wen, Sihan Fang and Jinbo Zhang Presenter: Yuxin Shen , Dalian Maritime University, China
17:20-17:35 CT1052	Paper Title: A Novel Multiplexing Technique for Increasing Spectral Efficiency Based on Chirp Waveform Author(s): Zhijun Liu, Zhouhao Li, Zhicheng Ma, Wei Deng, Yong Yang, Xi Song and Wenjiang Pei and Yili Xia Presenter: Zhijun Liu , Southeast University, China
17:35-17:50 CT4382	Paper Title: Dynamic Load Balancing for Location Division Multiple Access Systems Author(s): Hao Wei, Xin Wang, Xiqing Liu, Shi Yan, Chuang Yang and Mugen Peng Presenter: Hao Wei , State Key Laboratory of Networking and Switching Technology, China

Technical Sessions

Session 28: Optical Communications and Networks

Chair: **Xiaobo Zhou**, Tianjin University, China

16:00-18:00 | Oct. 18, 2025 | Function Room 5

Invited Speaker | 16:00-16:20



Lu Zhang, Zhejiang University, China

Speech Title: Secure Terahertz Communications with 3D Quantum Noise Cipher

Invited Speaker | 16:20-16:40



Tao Yang, Beijing University of Posts and Telecommunications, China

Speech Title: Long-distance and High-speed Ultraviolet Communication

Invited Speaker | 16:40-17:00



Weiqiang Sun, Shanghai Jiao Tong University, China (Presenter: Niangen Ye)

Speech Title: Toward Million-GPUs Scale AI Data Centers

Time	Presentation
17:00-17:15 CT1012	Paper Title: Distributed Auction-Based Traffic Offloading Algorithm in Heterogeneous Networks Author(s): Ze Dong, Shilong Xin, Xinlei Wang, Xin Zhao and Yang Liu Presenter: Xinlei Wang , Inner Mongolia University, China
17:15-17:30 CT2145	Paper Title: Codeword Superposition Based Integrated Communication and Navigation Transmission for LEO Satellites System Author(s): Guomei Zhang, Yue Li, Jiaoxian Yin and Hua Wang Presenter: Jiaoxian Yin , Xi'an Jiaotong University, China
17:30-17:45 CT3305	Paper Title: A BGP Network Model Based on SDN and REGEX Author(s): Jun Tao, Can Lingwang, Lei Yue and Hao Xu Presenter: Jun Tao , Anhui Institute of Information Engineering, China
17:45-18:00 CT5401	Paper Title: Unsupervised Radial Basis Function Neural Network Based Adaptive Chromaticity Drift Mitigation in Uniform Colour Space for Display Camera Communications Author(s): Zhe Wang Presenter: Zhe Wang , Shanghai Jiao Tong University, China

Technical Sessions

Session 29: Communication and Information Security

Chair: **Rui Chen**, China Three Gorges University, China

16:00-17:55 | Oct. 18, 2025 | Function Room 6

Invited Speaker | 16:00-16:20



Rui Chen, China Three Gorges University, China

Speech Title: Covert Communication Against Active-Passive Collaborative Attacks in Cognitive Radio Networks

Invited Speaker | 16:20-16:40



Yongmin Li, Shanxi University, China

Speech Title: Scheme Design and Experimental Implementation of Continuous Variable Quantum Networks

Time	Presentation
16:40-16:55 CT4342	Paper Title: STIDS: State Transition-Based Intrusion Detection System for In-Vehicle Networks Using Isolation Forest Author(s): Xiaopi Feng, Haoren Ke, Jianfeng Yang and Tianqi Yu Presenter: Xiaopi Feng , Soochow University, China
16:55-17:10 CT3266	Paper Title: Privacy-Preserving Neural Network Inference Based on Transformer Architectures Author(s): Xuelei Li, Zhiyuan Su, Wenshuo Guo, Yunran Zhao, Zhenhua Wang and Li Li Presenter: Xuelei Li , IEIT SYSTEMS (Beijing) Co., Ltd., China
17:10-17:25 CT2112	Paper Title: Movable Antenna Array-Based Secure Communication Against Multiple Eavesdroppers with Artificial Noise Author(s): Junshan Luo, Yingjie Wu, Yonggang Zhu, Weiyu Chen and Shilian Wang Presenter: Yingjie Wu , National University of Defense Technology, China
17:25-17:40 CT2126	Paper Title: Enhancing Physical-Layer Security with Multiple Passive RIS-Assisted Artificial Noise-Aided Generalized Spatial Directional Modulation Author(s): Youyang Xiang, Chengjie Zhao, Xianglu Li, Zhuo Zhang, Rui Qiu, Zhaoguo Ding, Zhijiang Huang and Jie Tian Presenter: Youyang Xiang , Institute of Electronic Engineering, China
17:40-17:55 CT3211	Paper Title: Physical Layer Security Enhancement Techniques for UAV Relay Systems Based on Artificial Noise Assistance Author(s): Yunqi Hao, Youyang Xiang, Xianglu Li, Chen Ding, Qilong Du, Dong Hou and Jie Tian Presenter: Yunqi Hao , Institute of Electronic Engineering, China

Technical Sessions

Session 30: AI for Communications and Networks

Chair: **Bo Li**, Ningxia University, China

16:00-18:00 | Oct. 18, 2025 | Function Room 7

Invited Speaker | 16:00-16:20



Zhiyong Du, Information Support Force Engineering University, China

Speech Title: Lightweight Intelligent Spectrum Decision-Making Under Resource-Constrained Conditions

Invited Speaker | 16:20-16:40



Kaisa Zhang, Beijing University of Posts and Telecommunications, China

Speech Title: Service Quality Evaluation and Network Management for Satellite-Terrestrial Direct Communication

Invited Speaker | 16:40-17:00



Zihan Chen, Singapore University of Technology and Design (SUTD), Singapore

Speech Title: Efficient and Scalable Distributed Large AI Model Fine-Tuning and Inference

Time	Presentation
17:00-17:15 CT3258	Paper Title: ADMMnet-Based Near-Field Channel Estimation for Massive MIMO Systems in Asymmetrical Architecture Author(s): Wanyu Song, Hongqi Wang, Jun Zhang, Shuo Yang and Yong Li Presenter: Wanyu Song, Nanjing University of Posts and Telecommunications, China
17:15-17:30 CT2151	Paper Title: Multi-UAV Collaborative Model Inference Based on Hierarchical Reinforcement Learning Author(s): Xinchun Li, Chen Xu, Lidong Ma and Wenfei Yuan Presenter: Xinchun Li, Beijing University of Posts and Telecommunications, China
17:30-17:45 CT2130	Paper Title: Deep Learning Assisted Hybrid Beamforming for THz Hybrid Near and Far Field Communications Author(s): Zijun Lin, Xufang Wang, Deyuan Zeng and Yi Wu Presenter: Xufang Wang, Fujian Normal University, China
17:45-18:00 CT5407	Paper Title: A Robust Constellation-Assisted Dual-Path Fusion Method for Automatic Modulation Recognition Author(s): Hongyi Zhu, Leao Wang, Hengtai Chang, Bin Qi, Wensheng Zhang and Jian Sun Presenter: Hongyi Zhu, Shandong University, China

Technical Sessions

Session 31: Communication and Information Theory

Chair: **Jian Dang**, Southeast University, Purple Mountain Laboratory, China

16:00-18:00 | Oct. 18, 2025 | VIP 208

Invited Speaker | 16:00-16:20



Jian Dang, Southeast University, Purple Mountain Laboratory, China

Speech Title: Improved Unsourced Random Access in Gaussian Multiple Access Channel

Invited Speaker | 16:20-16:40



Xinyue Pei, Northeastern University, China

Speech Title: AmBC-NOMA-Aided Short-Packet Communication for High Mobility V2X Transmissions

Invited Speaker | 16:40-17:00



Yingyang Chen, Jinan University, China

Speech Title: URLLC Design for Autonomous Driving: A Rate-Splitting Short Packet Approach

Time	Presentation
17:00-17:15 CT2166	Paper Title: Fast Reconstruction of Indoor Electromagnetic Environment Based on Floor Plans Author(s): Yiyun Guo, Songjiang Yang, Yinghua Wang, Jie Huang, Cheng-Xiang Wang and Yuyang Zhou Presenter: Yiyun Guo, Southeast University, China
17:15-17:30 CT3295	Paper Title: Decoding of LDPC Codes Combined with M-ary Spread Spectrum Signals for Underwater Acoustic Communications Author(s): Chenwanli Peng, Martin Johnston and Benjamin Sherlock Presenter: Chenwanli Peng, Newcastle University, United Kingdom
17:30-17:45 CT2150	Paper Title: Performance Analysis of Holographic MIMO Communication Systems with Propagation and Radio Channel Models Author(s): Yinglan Bu, Jie Huang, Yue Yang, Chen Huang and Cheng-Xiang Wang Presenter: Yinglan Bu, Southeast University, China
17:45-18:00 CT2168	Paper Title: A Novel GB SM for Long-Distance Skywave MIMO Communications Author(s): Yu Yang, Huan Huang, Jie Huang and Cheng-Xiang Wang Presenter: Jie Huang, Southeast University, China

Technical Sessions

Session 32: Space-Air-Ground Communication and Space Networking

Chair: **Xin Li**, Beijing University of Posts and Telecommunications, China

16:00-17:25 | Oct. 18, 2025 | VIP 209

Invited Speaker | 16:00-16:20



Xin Li, Beijing University of Posts and Telecommunications, China

Speech Title: Fast Routing and Wavelength Allocation in Large-scale WDM Optical Networks

Invited Speaker | 16:20-16:40



Kainan Wang, Wuhan University, China

Speech Title: Opto-mechanical Design for an Active Space Telescope

Time	Presentation
16:40-16:55 CT3311	Paper Title: Propagation Channel Analysis over Lunar Surface via Ray Tracing Technique Author(s): Lei Zang, Taiya Lei, Zijie Wang, Jionghui Li, Chenghua Wang, Xiaomin Chen and Qiuming Zhu Presenter: Lei Zang, Nanjing University of Aeronautics and Astronautics, China
16:55-17:10 CT3299	Paper Title: Gateway-Free Distributed Mobility Management for 5G Integrated Satellite-Terrestrial Networks Author(s): Shuyan Liu, Jianxiang Chu, Jian Yang, Chenglong Zhang, Jiadong Shang and Hui Gao Presenter: Shuyan Liu, Beijing Institute of Remote Sensing Equipment, China
17:10-17:25 CT5400	Paper Title: Meteor Trail Channel Detection and Classification Based on All-Sky Meteor Radar Author(s): Yupeng Li, Zhuangzhuang Tie, Huaitao Xu, Ziyang Wang, Zan Li and Jia Shi Presenter: Yupeng Li, Xidian University, China



POSTER
SESSIONS

4

Poster Sessions

Session 1: Advances in Wireless and Satellite Comm RF and Intell. Signal Proc.

Chair: **Feng Wang**, Singapore University of Technology and Design (SUTD), Singapore

13:30-15:30 Oct. 17, 2025 Poster Area		
No.	Paper ID	Presentation
1	CT1010	Paper Title: Orthogonalized Parallel Variable Step Size Nonlinear LMS Algorithm for Adaptive Digital Interference Canceller Author(s): Zhongpu Cui, Yedi Xin, Songhu Ge and Jinling Xing Presenter: Yedi Xin , Naval University of Engineering, China
2	CT3284	Paper Title: Efficient Multi-Armed Bandit-Based Beam Training for Multi-User XL-MIMO Systems Author(s): Yixin Jiang, Huibin Liang, Yunchao Song and Chen Liu Presenter: Yixin Jiang , Nanjing University of Posts and Telecommunications, China
3	CT3189	Paper Title: Orthogonal Projection-Based Beampattern Control for Robust Adaptive Beamforming Against DOA Mismatch Author(s): Yiyuan Liu, Xiaokai Zhang and Yuhua Xu Presenter: Yiyuan Liu , Army Engineering University, China
4	CT2167	Paper Title: Tomlinson Harashima Precoding Design for OTFS System Author(s): Yonghua Liu, Tao Yang and Rongke Liu Presenter: Yonghua Liu , Beihang University, China
5	CT2113	Paper Title: Dynamic Behavior Analysis of the Costas Loop Under CW Interference Using Runge-Kutta and Galerkin Methods Author(s): Yuhang Liang and Wenyi Wang Presenter: Yuhang Liang , Civil Aviation University of China, China
6	CT1051	Paper Title: A Multi-Objective Optimization Algorithm to Extend the Clean Bandwidth of All Digital Transmitters Author(s): Yutong Liu, Qiang Zhou, Lei Zhu, Haoyang Fu, Xinyue Zhu and Lei Xu Presenter: Yutong Liu , Nanjing University of Information Science and Technology, China
7	CT2090	Paper Title: An Adaptive Beamforming Method Based on Virtual Signals Iteration Author(s): Yuxi Du, Weijia Cui, Bin Ba and Long Zhang Presenter: Yuxi Du , Information Engineering University, China
8	CT3316	Paper Title: A Channel Estimation and Equalization Scheme for Distributed Multi-Satellite Cooperative Power Enhancement Transmission System Author(s): Zijian Zhang, Lizhe Liu, Mei Wang, Keming Ma, Bin Wang and Dongdong Wang Presenter: Zijian Zhang , CETC, China
9	CT3268	Paper Title: CA-DCNN: Automatic Modulation Recognition for Low-SNR Communications Author(s): Minghui Gao, Binqun Zhang, Lu Wang, Xiaogang Tang, Hongji Xing and Yuepeng Li Presenter: Minghui Gao , Space Engineering University, China
10	CT2104	Paper Title: Micro-Doppler Signature Simulation of Multirotor UAVs Using Ray Tracing Author(s): Changjun Li, Shiyi Mu, Jun Jiang, Lei Feng, Yuan Gao and Shugong Xu

		Presenter: Jun Jiang , Shanghai University, China
11	CT2174	Paper Title: A Passive Radar Framework Employing Automatic Identification System Signals for Harbor Maritime Target Detection Author(s): Yumeng Zhang, Lingling Li, Wenyu Zhang, Zhixin Xia and Lei Yan Presenter: Lingling Li, Northeastern University, China
12	CT2144	Paper Title: Dynamic Programming-Based Subcarrier Allocation Scheme for MIMO-OFDM ISAC Systems Author(s): Meng Liu, Wanying Su, Rugui Yao, Xi Nan, Hong Xu, Yongjia Zhu, Ye Fan and Xiaoya Zuo Presenter: Meng Liu, Northwestern Polytechnical University, China
13	CT1033	Paper Title: Energy-Efficient Optimization for UAV-ISAC with Joint Adaptive Task Scheduling, Power Allocation and Trajectory Planning Author(s): Xudong Tan, Feng Tian, Xiao Feng and Wei Wu Presenter: Xudong Tan, Nanjing University of Posts and Telecommunications, China
14	CT3310	Paper Title: Optimization of Sensing Coverage and Resource Efficiency in ISAC Systems Author(s): Yunfei Xi, Lifang Cao, Wei Deng, Liang Liu, Li Zhang, Wenzhi Li and Boyang Hu Presenter: Yunfei Xi, China Mobile Research Institute, China
15	CT3233	Paper Title: LS-SSC: Lightweight Stealth-Aware Secure Semantic Communication Against Eavesdroppers Author(s): Haiyang Cao, Tong-Xing Zheng, Jiansen Yin, Cong Li, Yiliang Liu and Zhou Su Presenter: Haiyang Cao, Xi'an Jiaotong University, China
16	CT5404	Paper Title: Transform-Domain Semantic Communication System with End-to-End Learning for Anti-Interference Transmission Author(s): Rui Ma, Jinhui Tan, Shuo Chen, Hui Gao and Wenjun Xu Presenter: Rui Ma, Beijing University of Posts and Telecommunications, China
17	CT4333	Paper Title: SAR Ship Target Detection Model Deployment Optimization Method for Real-Time Embedded System Author(s): Bingzhi Hou, Panzi Zhao, Xiaodong Yang and Daiwei Li Presenter: Bingzhi Hou, Beijing Normal University, China
18	CT4344	Paper Title: Age-Aware Scheduling with Resource Constraints and Delayed Feedback: A Deep Reinforcement Learning Approach Author(s): Chen Chen, Haoyuan Pan Presenter: Chen Chen, Shenzhen University, China
19	CT3203	Paper Title: CTN-SDELoc: A Neural SDE-Based Multi-Task Model for Indoor Localization Author(s): Gong Zihui Presenter: Gong Zihui, Nanyang Technological University, Singapore
20	CT2162	Paper Title: A Multi-Channel CSI Amplitude and Phase Information Based Indoor Localization Using Deep Learning and Weight Parameter Calculation with Covariance Matrix Author(s): Jiayi Xu, Jun Yan Presenter: Jiayi Xu, Nanjing University of Posts and Telecommunications, China
21	CT3289	Paper Title: Semantics Aware UAV-User-Grid Matching Game for OTFS-Enabled UAV Networks

		Author(s): Liang Tan Presenter: Liang Tan , Beijing University of Posts and Telecommunications, China
22	CT3220	Paper Title: Training Dataset Generation Method for Tele-LLMs Based on Active Learning Author(s): Lianghua Wu, Qixin Du Presenter: Lianghua Wu , Wuhan Fiberhome Technical Services Co., Ltd, China
23	CT3221	Paper Title: Research on Hybrid Word Segmentation Strategy for Tele-LLMs Integrating Domain Knowledge Author(s): Qixin Du, Lianghua Wu Presenter: Lianghua Wu , Wuhan Fiberhome Technical Services Co., Ltd, China
24	CT2158	Paper Title: Blind Detection of Frequency Hopping Signal via Dual Attention Author(s): Mingbing Yao, Haitao Xu, Boxiang He, Shilian Wang Presenter: Mingbing Yao , National University of Defense Technology, China
25	CT2101	Paper Title: Clutter Interference Suppression Algorithm for UAV Cluster Cooperative Detection Author(s): Mingjun Zhu, Shilian Wang, Boxiang He Presenter: Mingbing Yao , National University of Defense Technology, China
26	CT4340	Paper Title: Enhanced Automatic Modulation Recognition Using Polar Coordinate Features and Multi-Teacher Knowledge Distillation for Lightweight Networks Author(s): Qirui Yu, Shuangbo Li, Heng Dong, Jing Meng, Zhuoming Li Presenter: Qirui Yu , Harbin Institute of Technology, China
27	CT4356	Paper Title: Knowledge Distillation Based Lightweight Classification for Encrypted Traffic with Long Tailed Distribution Author(s): Xiang Zhang, Tiankui Zhang, Yinlong Liu, Weiqiang Cheng Presenter: Tiankui Zhang , Beijing University of Posts and Telecommunications, China
28	CT3229	Paper Title: A Deep Learning Based CSI Localization Algorithm Using Tensor Decomposition and Data Augmentation Author(s): Tianyu Hu, Jun Yan Presenter: Tianyu Hu , Nanjing University of Posts and Telecommunications, China
29	CT4378	Paper Title: Privacy Data Generation and Distribution Method Based on GAN Modeling Author(s): Kaitian Huang, Liang Xuan, Yixin Jiang, Zhihong Liang, Wenqian Xu, Yiwei Yang, Leyu Bi, Yunan Zhang Presenter: Wenqian Xu , CSG, China
30	CT1076	Paper Title: Sequential Distillation Based Multi-Modal Prompt Learning for Vision Language Models in Wireless Edge Networks Author(s): Yijing Liu, Longyu Zhou, Junchen Pan, Yijing Lin, Shuang Qin, Xiaoming Yuan Presenter: Yijing Liu , UESTC, China
31	CT4352	Paper Title: Spoofing Attack Detection in 5G NR: A ResNet50 Approach on Channel Eigenvalue Heatmaps Author(s): Yiwen Ma, Ruohan Cao, Hui Gao Presenter: Yiwen Ma , Beijing University of Posts and Telecommunications, China
32	CT1081	Paper Title: GAT-Based Backpressure Routing for Low Earth Orbit Satellite Networks Author(s): Zhenglong Yin, Quan Chen, Lei Yang, Jiaqi Li, Jianming Guo Presenter: Zhenglong Yin , National University of Defense Technology, China

33	CT4353	Paper Title: GNN-Assisted Long-Term Fairness Scheduling for Downlink RSMA Communications Author(s): Zhongzhi Ye, Jiang Chang, Jie Huang, Ming Zhao Presenter: Zhongzhi Ye, University of Science and Technology of China, China
34	CT4392	Paper Title: Cross-Domain Collaborative Slicing Optimization for Space-Air-Ground Integrated Networks Author(s): Xinyi Yue and Hui Gao Presenter: Xinyi Yue, Beijing University of Posts and Telecommunications, China

Poster Sessions

Session 2: Advances in Satellite, MEC and Wireless Technologies

Chair: **Bitao Pan**, Beijing University of Posts and Telecommunications, China

16:00-18:00 Oct. 17, 2025 Poster Area		
No.	Paper ID	Presentation
1	CT3237	Paper Title: Joint Task Offloading and Function Deployment for LEO-Assisted MEC Networks Author(s): Yiheng Zhou, Ducheng Wu, Jiong Liu and Changjiang Fei Presenter: Ducheng Wu, Information Support Force Engineering University, China
2	CT3197	Paper Title: Deep Enhancement Learning Based Semi-Dynamic Deployment for Mobile Edge Computing Author(s): Xianjun Lin, Tiankui Zhang, Yuanpeng Zheng and Tianyi Shi Presenter: Tiankui Zhang, Beijing University of Posts and Telecommunications, China
3	CT4385	Paper Title: Gradient-Aided ADMM for Distributed Task Scheduling in MQTT-Based IIoT Systems Author(s): Xingchen Pan, Fu Chen, Kai Zhou and Yu Cao Presenter: Xingchen Pan, Central University of Finance and Economics, China
4	CT1053	Paper Title: Delay Optimization for UAV-Assisted Collaborative Offloading with Ground MEC Servers in Task-Intensive Scenarios Author(s): Zhenkai Zheng and Na Lin Presenter: Zhenkai Zheng, Shenyang Aerospace University, China
5	CT1007	Paper Title: 6G Network Deployment Scheme Based on Control and Service Separation Author(s): Xin Sun, Zecai Shao, Shuyuan Zhang, Na Li, Guangyi Liu and Siqi Chen Presenter: Xin Sun, China Mobile Research Institute, China
6	CT3277	Paper Title: Revisiting Wireless-Powered MEC: A Cooperative Energy Recycling Framework for Task-Energy Co-Design Author(s): Haohao Qin, Bowen Gu, Xianhua Yu, Hao Xie, Yongjun Xu, Qihao Li and Liejun Wang Presenter: Xianhua Yu, Xinjiang University, China
7	CT2154	Paper Title: Low-Complexity Sparse Superimposed Coding for Ultra Reliable Low Latency Communications Author(s): Yanfeng Zhang, Xi'an Fan, Xu Zhu, Jinkai Zheng, Hui Liang, Weiwei Yang and Tom H. Luan Presenter: Yanfeng Zhang, Dongguan University of Technology, China
8	CT1039	Paper Title: A Compact Multi-Band Dual-Polarization Antenna Array for Millimeter Wave Mobile Communications Author(s): Yang Wang, Jianyi Zhou, Zhiqiang Yu, Fei Xu, Hongjun He, Liang Xia and Guangyi Liu Presenter: Yang Wang, China Mobile Research Institute, China
9	CT2178	Paper Title: Measurement-Based Channel Characterization and Cluster Analysis in High-Speed Railway Tunnels Author(s): Yujun Zhang, Peng Zheng, Haoran Chen, Yanyan Huang, Dan Fei and Bo Ai

		Presenter: Yujun Zhang , Beijing Jiaotong University, China
10	CT3317	Paper Title: Joint Optimization of Resource Allocation and Task Offloading in Multi-Layer Aerial Edge Computing Networks Author(s): Fengkui Sun, Zhenyu Na, Ye Liu and Bin Lin Presenter: Zhenyu Na , Dalian Maritime University, China
11	CT3255	Paper Title: RIS-UAV Assisted Downlink Relay Covert Communication Optimization Author(s): Tianqi Shang, Zhenyu Na, Zihao Wen and Bin Lin Presenter: Zhenyu Na , Dalian Maritime University, China
12	CT1002	Paper Title: Beamforming and Power Allocation for UAV-Enabled MIMO-NOMA Relay Transmission Author(s): Xiazhao Li, Laixian Peng, Renhui Xu, Jingjing Jiang, Hai Wang and Zhengqin Xu Presenter: Xiazhao Li , Army Engineering University of PLA, China
13	CT2147	Paper Title: Robust Microwave Sensing for Quantitative Pulmonary Water Monitoring Author(s): Donglai Miao, Yukai Zhao, Qijian Hu, Pengli Huang, Zhiguo Shi and Yong Wang Presenter: Donglai Miao , Zhejiang University, China
14	CT3191	Paper Title: Scheduling Strategy for UAV-Assisted Data Collection: An Offline-Based Online Dynamic Weight Framework Author(s): Pengyu Luo, Laixian Peng, Yuhua Wang, Renhui Xu, Xingyue Yu and Hai Wang Presenter: Pengyu Luo , Army Engineering University of PLA, China
15	CT2111	Paper Title: A Multi-Frequency Synchronization System Based on Dynamic Band Detection in IIoT Network Author(s): Chen Zheng, Biqian Feng, Kai Wan, Yongpeng Wu and Wenjun Zhang Presenter: Chen Zheng , Shanghai Jiao Tong University, China
16	CT1046	Paper Title: Optimization of Wireless Sensor Scheduling Based on Genetic Algorithm with Gradient Descent Correction Author(s): Dongxu Guo, Huaixi Wang, Shukang Tang, Shuiqing Tan, Yi Wang and Yujie Wang Presenter: Dongxu Guo , National University of Defense Technology, China
17	CT1070	Paper Title: DADN: A Dual-Stream Adversarial Disentanglement Network for Cross-Channel Robust Specific Emitter Identification Author(s): Qiucheng Luo, Yumei Liu, Zherui Zhang, Xiao Liang, Songhu Ge and Haoran Zha Presenter: Qiucheng Luo , Harbin Engineering University, China
18	CT2152	Paper Title: LoFT-IIoT: A Lightweight Trust Feature Extraction Method for Industrial Internet of Things Author(s): Qiuguo Guan, Zhiyu Ren and Qiuli Wang Presenter: Qiuguo Guan , Information Engineering University, China
19	CT1013	Paper Title: Energy Efficiency Maximization of Dual-Cluster Head Packet Uplink Multi-Carrier NOMA Author(s): Xidan Na, Yang Cong, Hang Zhang, Jiaying Li and Hongpeng Zhu Presenter: Yang Cong , Army Engineering University of PLA, China
20	CT2142	Paper Title: Fall Detection in Bathroom: A Millimeter-Wave Radar and Multi-Dimensional Clustering Approach Author(s): Yukai Zhao, Qijian Hu, Donglai Miao, Pengli Huang, Zhiguo Shi and Yong

		Wang Presenter: Yukai Zhao , Zhejiang University, China
21	CT3213	Paper Title: Key Technologies of Cellular and Passive IoT Symbiotic Communication Author(s): Yun Xu, Yinxiang Zheng and Tianqi Sun Presenter: Yun Xu , China Mobile Research Institute, China
22	CT4347	Paper Title: Modeling and Optimization of Passive IoT Based Wireless Sensing with Fresnel Zone Theory Author(s): Yingting Yuan, Hongjun Wan, Yuanhang Li, Xize Wang, Tao Li and Lulu He Presenter: Yingting Yuan , China Mobile Research Institute, China
23	CT1014	Paper Title: Intelligent Congestion Control in Satellite Networks Author(s): Changqing Liu, Yasheng Zhang, Shan Lu, Guangxiang Yang and Chaoyang Ji Presenter: Changqing Liu , CETC, China
24	CT2169	Paper Title: A Threshold-Based RIS-Assisted Co-Channel Interference Mitigation in ITS-N Author(s): Ding Chen, Yu Wei, Wei Zhang, Bin Zhou and Chenfeng Xu Presenter: Ding Chen , Chinese Academy of Sciences, China
25	CT3199	Paper Title: Deep Reinforcement Learning-Based Channel and Power Allocation for Multi-Beam LEO Satellite System Author(s): Kai Zhou, Bangning Zhang, Bowen Zhu, Chuan Gu, Ning Wang and Daoxing Guo Presenter: Kai Zhou , Army Engineering University of PLA, China
26	CT4341	Paper Title: A Wideband Vehicle-Loaded Dual Electrically Small Loop NVIS Antenna for Blind-Zone-Free Short Wave Communications on the Move Author(s): Longfei Wu, Sitong Chen, Liujia E and Yuxuan Zeng Presenter: Longfei Wu , Shanghai Spaceflight Precision Machinery Institute, China
27	CT2121	Paper Title: Active Eavesdropping Detection Based on Multi-Feature Fusion Author(s): Mingfang Li, Zheng Dou, Yanqi Ji, Jian Dong and Hang Jiang Presenter: Mingfang Li , Harbin Engineering University, China
28	CT5402-A	Paper Title: Distributed Mixture-of-Experts Inference over Satellite Constellations with Inter-Satellite Links Author(s): Qian Chen Presenter: Qian Chen , The University of Hong Kong, China
29	CT3248	Paper Title: Scalable Digitized Phase Coherence for Distributed Multi-Static Radar and Satellite Networks Author(s): Yue Yu, Ruoxi Cai and Lixin Ran Presenter: Ruoxi Cai , Zhejiang University, China
30	CT4360	Paper Title: Efficiency Group Paging Method for LEO Satellite Communication Systems Author(s): Songyi Zhang, Hailin Zhang, Chao Feng, Huan Pang, Zixuan Liu and Wenchi Cheng Presenter: Songyi Zhang , Xidian University, China
31	CT2170	Paper Title: Two-Stage Analog Interference Mitigation for LEO Uplink Author(s): Wei Zengxiang, Zhang Wei, Yu Wei and Zhou Bin Presenter: Wei Zengxiang , University of Chinese Academy of Sciences, China
32	CT1050	Paper Title: Simulation on VLEO Radio Occultation Constellation Parameters for Ionospheric Detection

		Author(s): Xinyu Liu, Shuai Wang, Lei Liu and Dianwei Cong Presenter: Xinyu Liu, Space Engineering University, China
33	CT3267	Paper Title: Research on Adaptability Analysis Method for Sea-Space-Air-Ground Integrated Communication Technology in Offshore Wind Farms Author(s): Yu Jing, Chanjuan Tang Presenter: Yu Jing, State Grid Shanghai Economic Research Institute, China
34	CT3326	Paper Title: CBO-2PC: Eliminating Concurrency Conflicts in Distributed Handover for Large-Scale LEO Satellite Networks Author(s): Zelin Wang, Wenshuang Zhang, Yonghu Cao, Pengjin Xie, Xiaolong Zheng, Liang Liu and Chaoyu Wang Presenter: Zelin Wang, Beijing University of Posts and Telecommunications, China
35	CT4380	Paper Title: Performance Analysis of the Delay Tolerant Network Protocol Stack in Earth-Moon Dynamical Communication Author(s): Yingxiang Han, Zichen Yu, Mingyue Bian, Lei Yan and Suzhi Cao Presenter: Zichen Yu, Chinese Academy of Sciences, China

Poster Sessions

Session 3: Advances in Comm, Signal Processing, RF and AI

Chair: **Zhiyong Du**, National University of Defense Technology, China

13:30-15:30 Oct. 18, 2025 Poster Area		
No.	Paper ID	Presentation
1	CT4377	Paper Title: Task-Oriented Low-Altitude ISAC Network with Joint Beamforming and Association Author(s): Ao Jiang, Fan Liu and Dingyou Ma Presenters: Ao Jiang, Beijing University of Posts and Telecommunications, China
2	CT3204	Paper Title: SRv6-Enabled Routing Optimization in LEO Satellite Networks: A Reinforcement Learning Approach Author(s): Ci He, Haisong Sun, Zhaoxing Bian, Yasheng Zhang and Mingwu Yao Presenters: Changqing Liu, CETC, China
3	CT1069	Paper Title: E-Band SIW Filter Based on the Higher-Order Modes of TE₂₀₁ and TE₁₀₂ Author(s): Chi Yang, Ran Chu, Linlin Sun and Jia Liao Presenters: Chi Yang, Nanjing University of Science and Technology, China
4	CT1078	Paper Title: An Intelligent Algorithm Based on GNN and SAC for Service Function Chain Deployment Author(s): Daoren Zhu, Jinqiu Lin, Rui Wang, Xiushuang Yi, Haobing Guo and Kungui Zeng Presenters: Daoren Zhu, Northeastern University, China
5	CT2098	Paper Title: An Iterative Adaptive Power Amplifier Digital Predistortion Model Based on Regression Splines Author(s): Fujun Wu, Renlong Han, Falin Liu and Lingyun Zhou Presenters: Fujun Wu, University of Science and Technology of China, China
6	CT1058	Paper Title: Beam-Lead Schottky Barrier Diode Implementation for D-Band Frequency Doubler Author(s): Jin Chen, Ran Chu, Linlin Sun and Jia Liao Presenters: Jin Chen, Nanjing University of Science and Technology, China
7	CT1057	Paper Title: Photonic Generation of Wideband Tunable Millimeter Wave Signals for Radar Application Author(s): Xiaolong Zhao, Jin Li, Tao Pu, Jilin Zheng, Hua Zhou, Jiaqi Zhao, Xianshuai Meng, Shuya Liu, Xinyu Zhang, Yunming Zhang, Shuntao Xiao and Ganheng Zhang Presenters: Jin Li, Army Engineering University of PLA, China
8	CT3207	Paper Title: Partial-Bits Interleaving PAPR Reduction Scheme for MIMO-OFDM Systems Author(s): Lingyin Wang Presenters: Lingyin Wang, University of Jinan, China
9	CT1060	Paper Title: Design of 6-18GHz Power Combining Network Based on Extended Coaxial Structure Author(s): Mengxiang Lu, Ran Chu, Linlin Sun and Jia Liao Presenters: Mengxiang Lu, Nanjing University of Science and Technology, China
10	CT4358	Paper Title: Direction of Arrival Estimation Algorithm for Non-Circular Signal by a Large Spacing Segmented Uniform Array

		Author(s): Sheng Liu, Jing Zhao Presenters: Sheng Liu , Jishou University, China
11	CT1024	Paper Title: Cloud Computing Task Scheduling Based on Proximal Policy and Whale Optimization Algorithm Author(s): Tengsheng Tu, Xiushuang Yi, Heng Wang and Haobing Guo Presenters: Tengsheng Tu , Northeastern University, China
12	CT1035	Paper Title: CL-Loc: A Dual-Branch CNN-LSTM Network for WiFi Fingerprint-Based Indoor Localization Author(s): Haobing Guo, Xiushuang Yi, Wanxin Zeng, Daoren Zhu, Rui Wang and Kungui Zeng Presenters: Wanxin Zeng , Jilin University, China
13	CT1048	Paper Title: Research on Individual Identification of Radar Emitters Based on Transformer Neural Networks Author(s): Xiang Chen, Bisheng Pan and Yu Chen Presenters: Xiang Chen , National University of Defense Technology, China
14	CT4335-A	Paper Title: High-Gain Planar Lenses for Mobile Communications: Phase Dispersion and System-Level Optimization Author(s): Xu Shuai, Xu Ziyi and Wang Yanxiao Austin Presenters: Xu Ziyi , National University of Singapore, Singapore
15	CT901	Paper Title: Dynamic Constrained Multi-Agent Reinforcement Learning for Multiple UAVs Area Coverage Author(s): Yifeng Lyu, Wei Jiang, Haowei Yang, Zhaowen Chen, Kuo Guo, Xuguang Li, Pengzhi Shao, Dongdong Zhao, Ruijie Guan and Tieming Su Presenters: Yifeng Lyu , Norinco Group, China
16	CT4361	Paper Title: Communication-Efficient Speculative Decoding for Large Language Models Inference Author(s): Yong Yang, Ting Ting Yang and Shao Shuai Gao Presenters: Yong Yang , University of Chinese Academy of Sciences, China
17	CT1075	Paper Title: A Dual-Mode Bowtie-Shaped Planar Implant Antenna for Wireless Brain-Computer Communications Author(s): Yukang Wang, Shuhan Hu, Suyang Chu, Mengxing Liu, Jin Xu and Jingjing Shi Presenters: Yukang Wang , Northeastern University, China
18	CT2100	Paper Title: Towards Ubiquitous WiFi Sensing through Exploiting Multi-Source Signals Author(s): Yushuang Cai, Junmei Yao, Yue Ling Che, Ruitao Xie, Wei Lou and Tingting Zhang Presenters: Yushuang Cai , Harbin Institute of Technology, China
19	CT1073	Paper Title: A Multiband Wearable Artistic Repeater Antenna for WBAN Applications Author(s): Suyang Chu, Taige Dong, Yukang Wang, Junchi Zhao, Zheng Zhang and Jingjing Shi Presenters: Zheng Zhang , Northeastern University, China
20	CT3232	Paper Title: Shapelet-Guided Perturbation for Interpretable Time Series Models Author(s): Zhuohan Yu, Heng Wang, Zitong Qi, Yuanyuan Meng and Xiushuang Yi Presenters: Zhuohan Yu , Northeastern University, China
21	CT902	Paper Title: GPAR: Optimizing Reliable Transmission of Deadline-Constrained Services in GEO Satellite Communication

		Author(s): Ziyi Yin, Chunxi Li and Yongxiang Zhao Presenters: Ziyi Yin, Beijing Jiaotong University, China
22	CT4368	Paper Title: The Impact of Phase Rotation on the Receiver of Parallax QAMA Author(s): Yingbo Tao, Jie Huang and Ming Zhao Presenters: Yingbo Tao, University of Science and Technology of China, China
23	CT4390	Paper Title: Leapfrog Alternating-Direction Implicit Finite-Difference Time-Domain-Based Channel Modeling for Indoor Environment Author(s): Haoxing Ruan, Huan Wang and Guanjun Xu Presenters: Guanjun Xu, Hangzhou Dianzi University, China
24	CT3212	Paper Title: A Three-State Markov Fading Model for Satellite Communication Under Ionospheric Scintillation Author(s): Junliang Liu, Yunyao Li, Cheng Zhang, Huan Wang, Guanjun Xu and Qinyu Zhang Presenters: Guanjun Xu, Hangzhou Dianzi University, China
25	CT1056	Paper Title: Characterization of the AMPLE Channel Model for IEEE 802.11ah-Based IoT Author(s): Luquan Xiao, Jihong Liu, Lingyou Zhou, Qinghe Hu, Zhong Hua, Ran Zhang, Wei Gu and Jiliang Zhang Presenters: Luquan Xiao, Northeastern University, China
26	CT3281	Paper Title: Energy-Efficient Resource Allocation in UAV-Assisted MEC Systems via Two-Stage Alternating Optimization Author(s): Yinchao Zhang, Gexin Chen Presenters: Yinchao Zhang, Nanyang Technological University, Singapore
27	CT4348	Paper Title: Research on Decoding for Polarization-Adjusted Convolutional Codes with New Node Metric Author(s): Jian Qiao, Lizhe Liu, Jinbo Zhang, Bin Wang, Shuaiyin Wang, Xiangyu Song and Yashan Pang Presenters: Jian Qiao, CETC, China
28	CT3320	Paper Title: Adaptive Sliding Window Decoding Algorithm for Zipper Codes Under BEC Author(s): Mengyao Li, Lijun Zhang Presenters: Mengyao Li, Beijing Jiaotong University, China
29	CT3235	Paper Title: Optimization and Analysis of Non-ideal Factors for Delay Measurement in Full-duplex Communications Author(s): Ze Wang, Fangmin He and Yaxing Li Presenters: Ze Wang, Naval University of Engineering, China
30	CT3241	Paper Title: A Robust Transmission Method for RIS-Assisted Low-Altitude UAV Communication Systems Author(s): Jianxin Sun, Jie Tang, Shuaijun Li, Junlin Zhang, Mingqian Liu and Yanlang Hu Presenters: Jianxin Sun, South China University of Technology, China
31	CT2199	Paper Title: Maximizing the Energy Efficiency of Ultra-Dense Networks with Single Hop Transmission Author(s): Dali Hu, Lisu Yu Presenters: Dali Hu, Nanyang Normal University, China

Poster Sessions

Session 4: Advances in Communications, Security and Signal Processing

Chair: **Shuai Wang**, University of Electronic Science and Technology of China, China

16:00-18:00 Oct. 18, 2025 Poster Area		
No.	Paper ID	Presentation
1	CT2135	Paper Title: Dynamic Privacy-Preserving Encryption Scheme Based on Attribute Hiding Author(s): Dongliang Cai, Yan Yang and Xiang Zhu Presenters: Dongliang Cai, Information Engineering University, China
2	CT4374	Paper Title: Learning Autonomous Defense Strategies via Multi-Agent Graph Neural Networks in Dynamic Networked Environments Author(s): Huanzhen Wang, Hongping Xu, Kuangdai Li, Linyuan Yao, Yang Liu and Zhenkun Fu Presenters: Huanzhen Wang, Beijing Institute of Astronautical Systems Engineering, China
3	CT2106	Paper Title: Lightweight Slice Authentication and Key Agreement Protocol for IoT Systems Author(s): Lianmi Duan, Zhongyan Ren, Xuewen Liu, Weijie Zhang, Xiangyu Chen, Kaisa Zhang, Yonghao Zhang and Jiaming Duan Presenters: Lianmi Duan, Beijing Electronic Science & Technology Institute, China
4	CT3303	Paper Title: RGLK-Linformer Enhanced Intrusion Detection Model Integrating GRU and KAN Author(s): Ruiyang Du, Hongmei Zhang, Shoudeng Pan, Ziwei Zhao and Junjie Huo Presenters: Ruiyang Du, Guilin University of Electronic Technology, China
5	CT1023	Paper Title: Research on Performance Optimization of High Concurrency Heterogeneous Hyper Fusion Architecture in Cloud Native Computing Network Author(s): Shuo Sheng Presenters: Shuo Sheng, Zhejiang University, China
6	CT3315	Paper Title: Towards the Real-World Wireless Secure Communication: The Deep-Transfer Learning Based Beamforming and Artificial Noise Author(s): Xun Zhang, Hongyu Luo, Jie Tang and Yao Ge Presenters: Xun Zhang, University of Electronic Science and Technology of China, China
7	CT3210	Paper Title: Dynamic AP Association for Fronthaul Efficiency in Cell-Free Massive MIMO via Thresholded Deep Reinforcement Learning Author(s): Huaqiao Zhou, Lei Zhu, Weijun Zeng, Lu Yu, Kaixin Cheng and Shiyue Wang Presenters: Huaqiao Zhou, Army Engineering University of PLA, China
8	CT2138	Paper Title: Diverse QoS Constrained Routing Algorithm for LEO Satellite Networks Based on Deep Reinforcement Learning Author(s): Long Li, Gaoqing Shen, Chengxin Zhu, Yu Li and Lei Lei Presenters: Long Li, Nanjing University of Aeronautics and Astronautics, China
9	CT4379	Paper Title: Intelligent 6G QoS System: Enabled Synergies of Communication, Sensing, Computing, and Intelligence Author(s): Zhiming Liu, Xiaoyun Wang and Jiangzhou Wang

		Presenters: Zhiming Liu , China Mobile Research Institute, China
10	CT3328	Paper Title: Timing Estimation for Deep Space Optical Communication Signals Author(s): Bin Wang, Xiaoyan Wang and Yuning Wang Presenters: Bin Wang , CETC, China
11	CT2148	Paper Title: Research on Transmission and Demodulation of the Synthesized Signals Based on Optical Delay Synchronization Author(s): Jinyao Hu, Xiaofeng Jin, Bing Wei and Wenhao Zhang Presenters: Jinyao Hu , Zhejiang University, China
12	CT4381	Paper Title: Underwater Remote-Operated Vehicle Based on Optical-Acoustic Cooperative Communication Author(s): Weicheng Yue, Fangjiong Chen, Zhicheng Zeng and Hua Yu Presenters: Weicheng Yue , South China University of Technology, China
13	CT3201	Paper Title: Analysis of the Impact of Solar Transit on Inter-Satellite Laser Links in Large-Scale Walker Constellations and Constellation Network Maintenance Countermeasures Author(s): Xiaojie Zhang, Huijie Liu, Minghao Shang, Xifan Yang, Xu Zhang and Xingfu Liu Presenters: Xiaojie Zhang , Northwestern Polytechnical University, China
14	CT3198	Paper Title: On-Orbit Uncertainty Field Analysis and Verification for LEO Satellite Laser Communication Author(s): Xingfu Liu, Huijie Liu, Cheng Chen, Xifan Yang, Hua Li and Xiaojie Zhang Presenters: Xingfu Liu , Chinese Academy of Sciences, China
15	CT3242	Paper Title: Research on Control Circuit and Control Method for 1-Bit Reconfigurable Intelligent Surface Author(s): Guohao Chen, Jie Tang, Shuaijun Li, Junlin Zhang, Mingqian Liu and Yanlang Hu Presenters: Guohao Chen , South China University of Technology, China
16	CT1045	Paper Title: PAPR Reduction Techniques for OFDM-Based Underwater Visible Light Communication System Author(s): Liwei Yang, Jiade Zhang, Shuai Fu, Yue Zhang, Jiangtao Zhao and Jiaxu Guo Presenters: Liwei Yang , China Agricultural University, China
17	CT3275	Paper Title: Aerial RIS-Aided Anti-Jamming Transmission with Movable Elements Author(s): Cunyi Geng, Wei Xie, Kui Xu, Xiaochen Xia, Chen Wei and Zilv Ye Presenters: Cunyi Geng , Army Engineering University of PLA, China
18	CT2109	Paper Title: Sum Rate Optimization in Element-Splitting-Based Self-Sustainable IRS-Aided SWIPT Systems Author(s): Xueyan Cao, Shuqi Li, Gerile Ge and Shubin Wang Presenters: Gerile Ge , Inner Mongolia University, China
19	CT2165	Paper Title: Secure Transmissions for STAR-RIS-Segmented Symbiotic Backscatter NOMA Systems Author(s): Pengyu Chen, Haiyang Ding, Zhen Wen, Maged El Kashlan, Jules M. Moualeu and Chau Yuen Presenters: Pengyu Chen , National University of Defense Technology, China
20	CT4359	Paper Title: RIS-Aided Cell-Free Massive MIMO Systems with Near-Field Communications Author(s): Changchang Xu, Qi Zhang, Jun Zhang and Shu Cai Presenters: Qi Zhang , Nanjing University of Posts and Telecommunications, China

21	CT3318	Paper Title: Multi-Model Crowd-Sensing Driven CSS Optimization at Low SNR Author(s): Zichao Meng, Dehao Zhu, Mingchen Ma, Guangzhen Si, Hanhong Wang and Lei Pan Presenters: Qian Wang, Zhejiang University of Technology, China
22	CT3308	Paper Title: Design of a Switchable Metasurface Absorber/Reflector with Polarization Independent Control Characteristic Author(s): Yunfei Xia, Zhaowang Cao, Weikang Xie, Zishan Chen, Huiwen Yang and Jianjun Jiang Presenters: Yunfei Xia, Huazhong University of Science and Technology, China
23	CT2122	Paper Title: Age of Information Aware Security Deployment Strategy for UAV-Aided IoV Systems Author(s): Yuanyuan Li, Han Zhang, Rui Han, Boning Li and Lin Bai Presenters: Boning Li, Beihang University, China
24	CT3251	Paper Title: Fault-Tolerant Identification of Network Layer Protocol Types Based on Natural Redundancy Decoding Author(s): Guoxian Yu, Xiaomin Ran, Hongyi Yu, Renpeng Zha, Yueran Ma and Jing Wu Presenters: Guoxian Yu, Information Engineering University, China
25	CT1026	Paper Title: Affine Projection Algorithm for Transform Domain Adaptive Filter Author(s): Mingze Ma, Kangkang Wang, Yang Feng, Huiting Wang and Bin Lin Presenters: Huiting Wang, Dalian Maritime University, China
26	CT3239	Paper Title: Robust DOA Estimation Based on the Star-Transformer Author(s): Jiawei Zhang, Xu Xu and Zhongfu Ye Presenters: Jiawei Zhang, University of Science and Technology of China, China
27	CT2182	Paper Title: Non-Stationary Direction-of-Arrival Estimation for Extremely Large-Scale Antenna Arrays Author(s): Jin Qiu, Xiaohuan Wu Presenters: Jin Qiu, Nanjing University of Posts and Telecommunications, China
28	CT3246	Paper Title: The FRFT Demodulation of Chirp-Rate Shift Keying Modulation for Rotating-Magnet Based Mechanical Antennas Author(s): Lei Xu, Qiang Zhou, Xie He, Jianya Zhang, Xinyue Zhu, Yutong Liu and Changfeng Liang Presenters: Qiang Zhou, National University of Defense Technology, China
29	CT4366	Paper Title: Design of a Synchronization Processing Module for Single-Carrier STBC Communication Systems Author(s): Qingzheng Tang, Yingbo Tao and Ming Zhao Presenters: Qingzheng Tang, University of Science and Technology of China, China
30	CT3240	Paper Title: Generalized Phase Shift Pilots for Massive MIMO-OFDM Channel Estimation Author(s): Siyuan Ni, Ding Shi, Rui Sun, Xiqi Gao and Xiang-Gen Xia Presenters: Siyuan Ni, Southeast University, China
31	CT2103	Paper Title: WFRFT Waveform Design and Signal Detection for Massive MIMO Systems with One-Bit ADCs Author(s): Xingjian Li, Zhiquan Song, Xuejun Sha, Yong Li, Lizhe Liu, Bin Wang and Jintao Xia Presenters: Xingjian Li, China Electronics Technology Group Corporation, China

32	CT2105	Paper Title: Analysis of Overshoot Error in 3-Level All-Digital Transmitter Author(s): Xinyue Zhu, Zhang Chen, Zhihu Wei, Yutong Liu, Lei Xu and Mingqi Wang Presenters: Xinyue Zhu , National University of Defense Technology, China
33	CT4355	Paper Title: Research on Electromagnetic Spectrum Map Reconstruction Based on Tensor Completion Author(s): Shusen Zhang, Kai Xie, Weining Xing, Luyan Xu, Lin Zhang and Ke Yang Presenters: Kai Xie , Academy of Military Science of PLA, China



ONLINE
SESSIONS

5

Online Sessions

Online Session 1: Intelligent Learning-Driven Network Resource Scheduling and Energy Efficiency Optimization

Chair: **Hong-Mei Zhang**, Guilin University of Electronic Technology, China

09:30-12:00 Oct. 18, 2025 821 4702 6350 Password: 101618	
Time	Presentation
09:30-09:45 CT3238	Paper Title: Reinforcement Learning Based Age of Information Optimization for Secure Downlink NOMA Systems Author(s): Yuchen Zhou, Siyuan Zhu, Mofan Luo, Mengmeng Ren, Bingtao He and Lu Lv Presenter: Siyuan Zhu , Xidian University, China
09:45-10:00 CT2175	Paper Title: User Interest-Based Skip Prediction for Optimized Video Streaming Efficiency Author(s): Junhua Chen, Suzhi Bi Presenter: Junhua Chen , Shenzhen University, China
10:00-10:15 CT2136	Paper Title: Pricing Mechanisms for Internet Content Caching under Sponsored Data Author(s): Chengchen Wang, Fei Wang, Youling Xiong, Min Tang Presenter: Chengchen Wang , Anhui Post and Telecommunication College, China
10:15-10:30 CT2149	Paper Title: PIFNet: Intention Fusion with Transformers for Cooperative Driving Author(s): Zhenzhen Pan, Lu Hou, Jie Mei Presenter: Zhenzhen Pan , Beijing University of Posts and Telecommunications, China
10:30-10:45 CT2107	Paper Title: Cloud Resource Utilization Prediction Using Runtime-Assembled Context-Specific Cooperative Artificial Neural Networks Author(s): Shusmoy Chowdhury, Nathan Nelson, Ajay Katangur, Siming Liu, Jamil Saquer Presenter: Ajay Katangur , Missouri State University, USA
10:45-11:00 CT2140	Paper Title: LLM Guided Automated Security Analysis for 5G UE Control Plane Protocols Author(s): Qi Shan, Jian Cui Presenter: Qi Shan , Beihang University, China
11:00-11:15 CT3194	Paper Title: CASA2SEL: Curriculum-Learned Adversarial Augmentation with Dual-Stream Network for Stable Specific Emitter Identification Author(s): Zhengwu Liu, Jiexin Yin, Qi Yu, Xiyu Song Presenter: Zhengwu Liu , Information Engineering University, China
11:15-11:30 CT3261	Paper Title: Reinforcement Learning-Based Backoff Algorithm for USV Mesh Networks Author(s): Shihao Zhou, Zheng Dou Presenter: Shihao Zhou , Harbin Engineering University, China
11:30-11:45 CT4394	Paper Title: Reinforcement Learning Based Adaptive Task Scheduling in Cloud Environments Author(s): Shadman Sakib, Ajay Katangur, Rahul Dubey Presenter: Shadman Sakib , Missouri State University, USA
11:45-12:00 CT2119	Paper Title: Maximizing the Energy Efficiency of Ultra-Dense Networks with Single Hop Transmission Author(s): Dali Hu, Lisu Yu Presenter: Dali Hu , Nanyang Normal University, China

Online Sessions

Online Session 2: RIS/ISAC-Aided and MIMO System Design and Performance Optimization

Chair: **Shaoshuai Gao**, University of Chinese Academy of Sciences, China

09:30-12:15 Oct. 18, 2025 842 9598 2825 Password: 101618	
Time	Presentation
09:30-09:45 CT1009	Paper Title: Efficient Joint Optimization and Performance Analysis of RIS-Assisted ISAC Systems Author(s): Huanzhi Wang, Youyun Xu Presenter: Huanzhi Wang, Nanjing University of Posts and Telecommunications, China
09:45-10:00 CT4365	Paper Title: A Timing Offset Estimation Method for Cell-Free Massive MIMO System with Bidirectional Reciprocity Calibration Author(s): Yuanyuan Tang, Qiankun Zhang, Dongming Wang, Qingji Jiang, Zhifei Wang Presenter: Yuanyuan Tang, Southeast University, China
10:00-10:15 CT3293	Paper Title: Block Gradient Descent Algorithm for Distributed Detection in Massive MIMO Author(s): Yunjie Chen, Qiqiang Chen, Lanxin He and Zheng Wang Presenter: Yunjie Chen, Southeast University, China
10:15-10:30 CT3301	Paper Title: Mitigating Complexity in UAV MIMO: Sub-Block-Level Holographic Hybrid Precoding for Spectral and Power Efficiency Author(s): Dongbo Geng, Zhongxiang Wei, Xiaowei Tang, Wen Ji, Yuanjin Ji, Qingjiang Shi Presenter: Dongbo Geng, Tongji University, China
10:30-10:45 CT3279	Paper Title: Low-Complexity Beamforming and Antenna Positioning in RIS-Aided Movable Antenna Systems Author(s): Huanle Li, Jing Gao*, Yanlin Liu, Jiarui Wang Presenter: Huanle Li, Tianjin Normal University, China
10:45-11:00 CT1066	Paper Title: RIS-Assisted AoI-Aware Resource Allocation for Platoon-Based C-V2X Networks via Multi-Agent Multi-Task Reinforcement Learning Author(s): Heng Chang, Xiangdong Jia, Wenting He, Zhilong Kou Presenter: Wenting He, Northwest Normal University, China
11:00-11:15 CT3280	Paper Title: Residual Multi-Scale Channel Networks for Robust OFDM Channel Estimation in Rapidly Time-Varying Scenarios Author(s): Zhan Shu, Jing Chang, Jianhua Ge, Jian Zhang Presenter: Zhan Shu, Xidian University, China
11:15-11:30 CT3323	Paper Title: Hierarchical Alternating Optimization for Enhanced 6DMA-Assisted Over-the-Air Computation Author(s): Junjie Gao, Bin Yan, Rui Ma, Zheng Wang, Yongming Huang Presenter: Gao Junjie, Southeast University, China
11:30-11:45 CT3325	Paper Title: Spectrum and Energy Efficiency Optimization for UAV Enabled Integrated Sensing and Communication Author(s): Hansen Dai, Yan Yang, Kaiqiang Zhang, Jiahui Hao, Bin Li Presenter: Hansen Dai, Beijing Jiaotong University, China



11:45-12:00
CT2153

Paper Title: Task-Oriented MIMO Power Allocation for Multi-Task Downlink Information Dissemination

Author(s): Huiling Chen, Suzhi Bi, Xian Li, Xiao-Hui Lin

Presenter: **Huiling Chen**, Shenzhen University, China

12:00-12:15
CT3188

Paper Title: Near-Field Beam Training Leveraging Echo in XL-RIS-Aided ISAC Systems

Author(s): Yanlin Liu, Jing Gao, Huanle Li, Jiarui Wang

Presenter: **Yanlin Liu**, Tianjin Normal University, China

Online Sessions

Online Session 3: Satellite and Space-Air-Ground Integrated Communication System Design

Chair: **Jie Yang**, Nanjing Institute of Technology, China & **Lidong Zhu**, University of Electronic Science and Technology of China (UESTC), China

13:30-17:45 | Oct. 18, 2025 | 821 4702 6350 | Password: 101618

Invited Speaker | 13:30-13:50



Han Wu, Sichuan University, China

Speech Title: Mid-infrared Temporal Ghost Imaging and Data Encryption

Time	Presentation
13:50-14:05 CT2088	Paper Title: Exploiting the Intelligent Reflecting Surface for Mitigating the Indoor VLC-MIMO Channel Correlation under Blockage Scenario Author(s): Kaiye Huang, Xiyao Zhou, Zefan Lin, Yichuan Li Presenter: Zefan Lin , Harbin Institute of Technology, China
14:05-14:20 CT2139	Paper Title: CE-Optimized Cross-Beam Combining for GEO Satellite in Space-Air-Ground Integrated Network Author(s): Liangzi Wu, Yucong Zou, Shuai Wang, Buning Tian, Zhe Song, Xiaqing Miao Presenter: Liangzi Wu , Beijing Institute of Technology, China
14:20-14:35 CT5398	Paper Title: Software-Defined Satellite Network Transmission Control Strategy Based on Interruption Detection Author(s): Hongguang Wang, Yiming Jiang, Wei Lv, Luxin Bai, Cunwei Yu Presenter: Hongguang Wang , Information Engineering University, China
14:35-14:50 CT3222	Paper Title: Energy Efficient Tradeoff Scheme for UAV-Assisted Wireless Sensor Network Data Collection Author(s): Hailong Tian, Xiangdong Jia, Wenyan Liang, Hongli Bao Presenter: Hailong Tian , Northwest Normal University, China
14:50-15:05 CT3249	Paper Title: Design and Optimization of Reliable Transmission Scheme Based on Air-Ground Collaboration Under Jamming Environment Author(s): Dengyun Hou, Hai Wang, Zhen Qin Presenter: Dengyun Hou , Army Engineering University of PLA, China
15:05-15:20 CT1030	Paper Title: Performance Analysis of Satellite Covert Communication Based on Multi-Satellite Collaboration Author(s): Yinxia Zhu, Jian Zhang, Xiang Tian, Jing Hu, Bangning Zhang, Daoxing Guo Presenter: Yinxia Zhu , Army Engineering University of PLA, China
15:20-15:35 CT1031	Paper Title: Acquisition Scheme of Spatiotemporal Chaotic Hybrid DSFH Sequence Author(s): Jian Zhang, Hongpeng Zhu, Yinxia Zhu, Jing Hu, Xiang Tian Presenter: Jian Zhang , Army Engineering University of PLA, China
15:35-16:00	Break

16:00-16:15 CT2157	Paper Title: Content-Aware Image Transmission and De-Noising in Wideband Fading Channels Author(s): Yu Zheng, Suzhi Bi, Xian Li, Xiao-Hui Lin Presenter: Yu Zheng, Shenzhen University, China
16:15-16:30 CT1054	Paper Title: Energy-Harvesting-Aware Age of Information Optimization in Heterogeneous Cognitive Radio Networks Author(s): Xingyuan Zhang, Xiangdong Jia, Hongli Bao, Jingjing Wu Presenter: Xingyuan Zhang, Northwest Normal University, China
16:30-16:45 CT3272	Paper Title: Two-Stage Positioning Method for GNSS Jammer Based on Macro and Small BSs in 5G System Author(s): Guomei Zhang, Kejun Peng, Yezhao Shi and Bin Guan Presenter: Kejun Peng, School of Information and Communications Engineering, China
16:45-17:00 CT1059	Paper Title: Research on Highly Integrated W-Band Multi-Channel Receiving Module Author(s): Haoyu Lu, Linlin Su, Ran Chu, Jia Liao Presenter: Haoyu Lu, Nanjing University of Science and Technology, China
17:00-17:15 CT2125	Paper Title: ML-Based Joint CFO and Channel Estimator for RCP-OTFS System Author(s): Tingguang Zhang, Aijun Liu, Kegang Pan, Xiaohu Liang, Xin Lin, Xin Xu Presenter: Tingguang Zhang, Army Engineering University of PLA, China
17:15-17:30 CT3228	Paper Title: Reinforcement Learning-Based Flow Scheduling Scheme in IIoT Networks Author(s): Qiru Chen Presenter: Qiru Chen, Shanghai Jiao Tong University, China
17:30-17:45 CT2095	Paper Title: Low-Complexity Channel Estimation and Localization for Millimeter-Wave Systems via Tensor Analysis Author(s): Yang Wang, Peng Zhang, Jingyi Guan, Weijia Yu, Jing He Presenter: Yang Wang, Communication University of China, China

Online Sessions

Online Session 4: Communication Security, Signal Processing, and Network Protocol Optimization

Chair: **Lijun Zhang**, E-surfing Vision Technology Co., Ltd, China Telecom, China

13:30-17:45 | Oct. 18, 2025 | 842 9598 2825 | Password: 101618

Invited Speaker | 13:30-13:50



Shiyang Han, Nankai University, China

Speech Title: Boosting Symbiotic Radio Networks Using Reconfigurable Intelligent Surface

Time	Presentation
13:50-14:05 CT1062	Paper Title: Efficient Implementation of RNC-Based Authentication Codes over GF(2m) Author(s): Lihuan Cai, Yanjia Ye and Yi Tang Presenter: Lihuan Cai , Guangzhou University, China
14:05-14:20 CT2097	Paper Title: Interference Recognition Algorithm Based on Convolutional Neural Network Author(s): Jianyu Liu, Chenyu Huang, Chengzhao Shan, Heng Dong, Zhuoming Li and Jiayan Zhang Presenter: Jianyu Liu , Harbin Institute of Technology, China
14:20-14:35 CT2102	Paper Title: A Lightweight Security Enhancement Mechanism for Inter-Network Function Access in 5G Core Networks Author(s): Lianzhengyang Chen Presenter: Lianzhengyang Chen , Innovation Academy for Microsatellites Chinese Academy of Sciences, China
14:35-14:50 CT1043	Paper Title: Automatic Recognition and Classification of Communication Modulation Signals Based on Convolutional Neural Network Author(s): Zheyuan Deng, Yang Qiu, Ziwen Li, Lantian Deng, Xiaoyu Yu, Deyue Zou, Suiwen Zhong and Yicheng Wang Presenter: Zheyuan Deng , Zhuhai College of Science and Technology, China
14:50-15:05 CT3286	Paper Title: Design of Spherical Conformal Antenna Array Based on Liquid Crystal Technology Author(s): Yixuan Cui, Di Jiang, Kang Yang, Songyang Li, Jiahao Zhao, Bin Sun, Lingfeng Dong, Yun Xiang Presenter: Yixuan Cui , University of Electronic Science and Technology of China, China
15:05-15:20 CT1061	Paper Title: Design of W-Band Waveguide Filters Based on TE ₁₀₂ Higher-Order Mode Author(s): Zewei Jie, Linlin Sun, Ran Chu, Jia Liao Presenter: Zewei Jie , Nanjing University of Science and Technology, China
15:20-15:35 CT4388	Paper Title: An Event-Triggered Time Sensitive Adaptive MAC Protocol for WSN Author(s): Ning Ma, Haiou Shen Presenter: Ning Ma , Officers College of PAP, China

15:35-16:00	Break
16:00-16:15 CT2160	Paper Title: NOMA-Based Computation Offloading with Non-Linear Power Amplifier Distortion Author(s): Zhixuan Yang, Suzhi Bi, Xian Li, Xiao-Hui Lin Presenter: Zhixuan Yang, Shenzhen University, China
16:15-16:30 CT2108	Paper Title: Optimal Packetization Towards Low Latency in Random Access Networks Author(s): Zihong Li, Xinghua Sun Presenter: Zihong Li, Sun Yat-sen University, China
16:30-16:45 CT1008	Paper Title: A Cross-Domain Joint Scheduling Framework for 5G and Time-Sensitive Networking to Mitigate Latency Jitter Author(s): Yuhang Peng, Yan Yang, Kaiqiang Zhang, Jiahui Hao, Bin Li Presenter: Yuhang Peng, Beijing Jiaotong University, China
16:45-17:00 CT3273	Paper Title: Research on Ground Wet and Slippery Sensing System for Outdoor Robots Based on Millimeter-Wave Radar Author(s): Yu Qin, Aiqing Wang, Hui Sun Presenter: Aiqing Wang, Zhejiang University, China
17:00-17:15 CT1063	Paper Title: S-Band Load-Modulated Balanced Amplifier Based on Hybrid Asymmetric Architecture Author(s): Peijun Wang, Ran Chu, Linlin Sun, Jia Liao Presenter: Peijun Wang, Nanjing University of Science and Technology, China
17:15-17:30 CT2137	Paper Title: Wireless Network Topology Inference Based on Domain Adaptation Author(s): Wenbo Du, Weijun Zeng, Ye Liu, Chuang Wang, Lei Zhu Presenter: Wenbo Du, Army Engineering University of PLA, China
17:30-17:45 CT2132	Paper Title: DFed-PID: Decentralized Federated Learning with PID Controllers Author(s): Shaofan Li, Mingjun Dai, Zhen Guo Presenter: Shaofan Li, Shenzhen University, China

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