

First Technical Symposium on Integrated Sensing and Communication (ISAC) in China

6G is believed to continue transforming from connected people, connected things, to connected intelligence. Applications such as interactive immersive experience, machine collaboration in unmanned factories, smart healthcare with real-time body sensing, and ultimately autonomous driving will be promoted and leveraged on a large scale during the next decade. This will lead to significantly higher network performance requirements, such as Tbit/s communication rates and millimeter-level sensing precision at the same time. Integrated sensing and communication (ISAC) thus becomes a key feature of the next generation wireless communications, especially in high-frequency and high-bandwidth scenarios. Further combined with AI technologies, ISAC is the key enabling technology for the fusion of physical, biological and cyber worlds in a future to come. To accelerate research in this field and promote exchanges of views, ideas, requirements, and interesting research findings between experts and scholars in this field, the first ISAC Symposium in China is planned to be held on April 15, 2021.

- **Theme:** Integrated sensing and communication (ISAC) towards a world of connected intelligence

- **Time:** 8:30~18:30, 15 Apr 2021

- **Location:** Chengdu, China & Live Online

- **Sponsors and Organizers:**

The Communications Society of the Chinese Institute of Electronics (CIE)

The IoT Committee of China Institute of Communications (CIC)

Huawei Technologies Co., Ltd.

Mobile communications Innovation Center of China Academy of Information and Communication Technology (CAICT)

- **Co-organizers:**

University of Electronic Science and Technology of China

Southwest Jiaotong University, China

- **Format of Symposium**

Invited talks from domestic and foreign experts (hybrid onsite & online)

Themed panel discussion (onsite)

Agenda

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Time: April 15, 2021 @ 8:30-18:00 Venue: Bright Hall, Chengdu New Hope High-Tech Crowne Plaza Hotel		
Time Slot	Program	Guests
Opening Ceremony Chair: Pingzhi Fan , Professor, Southwest Jiaotong Univeristy		
8:30-8:50	Opening Speech	<p>Hongbo Zhu, Director Communications Society of the Chinese Institute of Electronics</p> <p>Ku Wen, Vice President, Secretary General China Communications Standardization Association</p> <p>Zhiqin Wang, Vice Dean (Video) China Information and Communication Research Institute</p> <p>Yuhong Huang, Vice Dean, (Online or Video) China Mobile Research Institute</p> <p>Wen Tong, PhD (Online) CTO, Huawei Wireless Research</p>
Academic Discussion (Morning Session I) Chair: Pingzhi Fan , Professor, Southwest Jiaotong Univeristy		
8:50-9:10	Report 1	Peiyong Zhu , PhD (Online) Senior Vice President, Huawei Wireless Research
9:10-9:30	Report 2	Robert Heath , Professor (Online) North Carolina State University
9:30-9:50	Report 3: Terahertz Sensing Communication Integration Technology and Application	Shaoqian Li , Professor, University of Electronic Science and Technology
9:50-10:05	Q&A	
Tea/Coffee Break (10:05-10:25, Photo)		
Academic Discussion (Morning Session II)		


Chair: Shaoqian Li , Professor, University of Electronic Science and Technology		
10:25-10:45	Report 4: Demand Scenarios and Challenges of Integrated Sensing and Communication	Chunfeng Cui , Director Institute of Future Mobile Communication Technology, China Mobile Communication Research Institute
10:45-11:05	Report 5: Unlimited Perception: New Opportunities and Challenges	Ying Du , Vice Director Mobile Communication Innovation Center of China Information and Communication Research Institute
11:05-11:25	Report 6: Intersection and Fusion of Wireless Communication and Perception	Shiqiang Suo , Manager New Technology Department of Datang Mobile Communication Equipment Co., Ltd
11:25-11:45	Report 7: Future Demand of Intelligent Vehicle and Travel for 6G Synaesthesia	Wenlin Chen , Senior Expert Geely Technology Group
11:45-12:00	Q&A	
Lunch (12:00 -13:30)		
Academic Discussion (Afternoon Session I) Chair: Yan Chen , Senior Expert, Huawei Wireless Research		
13:30-13:50	Report 8	Hongwei Liu , Professor Xi'an University of Electronic Science and Technology
13:50-14:10	Report 9: Theory and Technology of Perceptual Communication Fusion	Zhiyong Feng , Professor Beijing University of Posts and Telecommunications
14:10-14:30	Report 10: Research on Wireless Channel Drives the Integration of 6G Communication Perception	Chengxiang Wang , Professor Southeast University
14:30-14:50	Report 11: Research on Integration Standard of Communication and Perception Based on WiFi	Xuming Fang , Professor Southwest Jiaotong University
14:50-15:05	Q&A	

Tea/Coffee Break (15:05-15:25)		
Academic Discussion (Afternoon Session II) Chair: Chengxiang Wang , Professor, Southeast University		
15:25-15:45	Report 12: Integration of Communication and Perception: Challenges, Status and Computing Based Approaches	Zhaoyang Zhang , Professor Zhejiang University
15:45-16:05	Report 13: Cooperative Sensing Technology in Wireless Communication Network	Yuan Shen , Associate Professor Tsinghua University
16:05-16:25	Report 14	Gerhard Fettweis , Professor (Online) Technical University of Dresden (TU Dresden)
16:25-16:45	Report 15: Joint Radar and Communication Design: Applications, State-of-the-Art and the Road Ahead	Lajos Hanzo , Professor (Online) Southampton University
16:45-17:00	Q&A	
Round Table Discussion: 17:00-18:00 Theme: "Key Opportunities and Challenges of Communication Perception Integration" Chair: Zhisheng Niu, Professor, Tsinghua University Invited experts: Chunfeng Cui (China Mobile), Jianmin Lu (Huawei), Bo Sun (ZTE), Wenlin Chen (Geely), Zhiyong Feng (BUPT), Pingzhi Fan (SWJTU), Yuan Shen (Tsinghua)		
Close		








Introduction of Invited Guests


Gusets	Affiliations	Photos
Opening Speeches (in order of speeches)		

Hongbo Zhu	<p>Director, Communications Society of the Chinese Institute of Electronics</p> <p>Director, IoT Committee of China Institute of Communications</p> <p>Professor, Nanjing University of Posts and Telecommunications</p>	
Kun Wen	<p>Vice President, Secretary General</p> <p>China Communications Standardization Association</p>	
Zhiqin Wang	<p>Vice Dean, China Information and Communication Research Institute</p> <p>Head of China IMT 2030 (6G) Promotion Team</p>	
Yuhong Huang	<p>Vice Dean, China Mobile Research Institute</p>	
Wen Tong	<p>CTO, Huawei Wireless Research</p> <p>Huawei Fellow, IEEE Fellow</p> <p>Academician, Canadian Academy of Engineering</p>	
Invited Chairs		
Pingzhi Fan	<p>Chair Professor, Southwest Jiaotong University</p> <p>Director, National International Joint Research Center of Modern Communication and Sensor Network</p> <p>IEEE Fellow, IET(IEE) Fellow</p>	

Shaoqian Li	<p>Professor, University of Electronic Science and Technology Director, State Key Laboratory of Communication Anti-Interference IEEE Fellow</p>	
Zhisheng, Niu	<p>Professor, Tsinghua University Director, Key Laboratory of Smart Networking, Beijing National Research Center of Information Science and Technology IEEE Fellow, IEICE Fellow</p>	
Chengxiang Wang	<p>Professor, Southeast University Executive Dean, School of Information Science and Engineering, Southeast University IEEE Fellow, IET Fellow, Academician of the European Academy of Sciences</p>	
Yan Chen	<p>Senior Expert, Chief Engineer, Huawei Wireless Research</p>	
Invited Guests (in order of speeches)		
Peiyong Zhu	<p>Senior Vice President, Huawei Wireless Research Huawei Fellow, IEEE Fellow Academician, Canadian Academy of Engineering</p>	
Robert Heath	<p>North Carolina State University, Professor IEEE Fellow</p>	

Shaoqian Li	<p>Professor, University of Electronic Science and Technology</p> <p>Director, State Key Laboratory of Communication Anti-Interference</p> <p>IEEE Fellow</p>	
Chunfeng Cui	<p>Director, Institute of Future Mobile Communication Technology, China Mobile Communication Research Institute</p>	
Ying Du	<p>Vice Director, Mobile Communication Innovation Center of China Information and Communication Research Institute</p>	
Shiqiang Suo	<p>Manager, New Technology Department of Datang Mobile Communication Equipment Co., Ltd</p>	
Wenlin Chen	<p>Senior Technical Expert of Automatic Driving, Geely Technology Group</p>	
Hongwei Liu	<p>Professor, Xi'an University of Electronic Science and Technology</p> <p>Director, State Key Laboratory of Radar Signal Processing</p>	
Zhiyong Feng	<p>Professor, Beijing University of Posts and Telecommunications</p> <p>Director, Key Laboratory of Ubiquitous Wireless Communication, Ministry of Education</p>	

<p>Zhaoyang Zhang</p>	<p>Professor, Zhejiang University Director, Department of Information and Communication Engineering, Zhejiang University</p>	
<p>Xuming Fang</p>	<p>Professor, Southwest Jiaotong University</p>	
<p>Yuan Shen</p>	<p>Associate Professor, Tsinghua University Vice Director, Department of Electronics, Tsinghua University</p>	
<p>Chengxiang Wang</p>	<p>Professor, Southeast University Executive Dean, School of Information Science and Engineering, Southeast University IEEE Fellow, IET Fellow, Academician of the European Academy of Sciences</p>	
<p>Gerhard Fettweis</p>	<p>Technical University of Dresden (TU Dresden), Vodafone chair professor IEEE Fellow Academician of the National Academy of Sciences and the German Academy of Engineering</p>	
<p>Lajos Hanzo</p>	<p>Southampton University, Professor IEEE Fellow, IET Fellow, EURASIP Fellow Academician of the Royal Academy of Engineering</p>	
<p>Jianmin Lu</p>	<p>Vice Director, Wireless Technology Laboratory of Central Research Institute of Huawei</p>	

Bo Sun	Chief Director, ZTE Unlimited Standardization	
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Receipt of Attendance

Receipt of attendance for First Technical Symposium on Integrated Sensing and Communication (ISAC)

Name	Gender	Affiliation and role	Email & Mobile	Onsite or Online
			Email : Mobile :	

1. After the registration is completed, you will receive an email confirmation, which means that the registration is successful. The email also contains the link of conference hotel reservation.
2. After the on-site participants sign in with the registration information and ID, they can enter the venue with the representative card. On site registration is not supported. The organizer will provide free lunch for the registered participants.

Contacts (Possible to register by email, free):

- Su Zhao (Communication Society of Chinese Electronics Society)
zhaos@njupt.edu.cn 18951896599
- Ziming Yu (Huawei) yuziming@huawei.com 18180460897

Register by Wechat (free):



Conference Venue

- **Conference venue:** Bright Hall, New Hope Crowne Plaza, No.1 Xixin Avenue, Gaoxin West District, Chengdu, Sichuan, China
- **Travel:** Baicao station of Chengdu Metro Line 2 is about 5 minutes walking distance to the hotel, and about 40 minutes by car from the airport to the hotel



- **Recommended Hotels nearby:**

Hotel 1: New Hope Crowne Plaza

No.1 Xixin Avenue, Gaoxin West District, Chengdu, Sichuan, China

86-28-87826666

<https://www.ihg.com/crowneplaza/hotels/cn/zh/chengdu/ctucp/hoteldetail>



Hotel 2: Holiday Inn New Hope Hi Tech Center

Annex No.1 of No.1 Xixin Avenue, Gaoxin West District, Chengdu, Sichuan, China

86-28-8282 2222

<https://www.ihg.com/holidayinn/hotels/cn/zh/chengdu/ctuht/hoteldetail>

