

Call for paper

2nd International Workshop on Terahertz for Integrated Sensing and Communication (THz-ISAC)

WORKSHOP General Chair

Wen Tong, Huawei Technologies, Canada

WORKSHOP Co-Chairs

Rahim Tafazolli, University of Surrey, UK

Jose Capmany Franco, Universitat Politècnica de València, Spain

TPC MEMBERS

Alessandro Tredicucci, Università di Pisa, Italy

Arash Asadi, TU Darmstadt, Germany

Chong Han, Shanghai Jiao Tong University, China

Gianni Pasolini, University of Bologna, Italy

Huanhuan Gu, Huawei, Canada

I. F. Akyildiz, Truva Inc., USA

Jia He, Huawei, China

Jianguo Ma, Zhejiang University, China

Josep Miquel Jornet, Northeastern University, USA

Mate Boban, Huawei, Germany

SCOPE

With the successful organization of 1st THz-ISAC workshop, 2nd THz-ISAC workshop will keep exploring the frontier of THz-ISAC research with both academia and industry. It is worthwhile investigating the technical challenges bringing up by new applications/use-cases and new deployment scenarios under discussion in ITU for 6G. And as future technologies trend of 6G, potential solutions are still needed for domain from fundamental theories to component and system design. It is necessary to motivate the exploration on a). innovative design for air interface, especially jointly design for both communication and sensing; b). fundamental communication theory to expanding capability of 6G in this promising domain; c). high accuracy positioning, imaging based on THz; d). hardware and component design to enable innovative design for 6G terminal; e). Material characteristics study which impacting performance of THz-ISAC; f). Specific design for vertical use case like industry 4.0.

TOPICS OF INTEREST (including, but not limited to)

- Terahertz channel modelling and propagation
- Performance evaluation methodologies on THz sensing
- Air-interface design of THz systems
- Waveform design for THz sensing and communication
- Enhance MIMO and antenna arrays for THz systems
- Integrated THz communication and sensing systems
- Low complexity THz communication system
- THz imaging, positioning/localization, THz spectroscopy
- Transceivers and components for THz systems
- Antenna and arrays design for THz systems
- Low complexity digital signal processing
- Experimental hardware design and implementation
- THz and ISAC enabling Industrial 4.0
- Prototype and trial activity for THz and ISAC
- Material characteristics study which impacting THz-ISAC
- Emerging/new basic science phenomena for THz sensing and communication

IMPORTANT DATES

Paper Submission Deadline:

June 03, 2021

Paper Acceptance Notification:

June 24, 2021

Final workshop manuscript:

July 15, 2021

TPC Chair

Reiner Thomä, Technische Universität Ilmenau, Germany

TPC Co-Chairs

Ke Wu, Polytechnique Montréal (University of Montreal), Canada

Jian Li, Huawei Technologies, China

Natalia Nikolova, McMaster University, Canada

Thomas Zwick, Karlsruhe Institute of Technology(KIT), Germany

Wojciech Knap, University of Warsaw, Poland

Wolfgang Gerstacker, FAU, Germany

Xianbin Yu, Zhejiang University, China

Xiaodai Dong, University of Victoria, Canada

Xiaojing Huang, University of Technology Sydney, Australia

Yaxin Zhang, UESTC, China

Yiming Zhu, USST China

SUBMISSIONS

Submission link: To be available on EDAS soon

Contact: Jian Li, Calvin.li@huawei.com