

ZTE Communications Special Issue on Integrated Sensing and Communication (ISAC) Technologies for Future Wireless Systems

The radio communication division of the International Telecommunication Union (ITU-R) has recently adopted Integrated Sensing and Communication (ISAC) among the key usage scenarios for IMT-2030/6G. The rationale of the ISAC is that a radio emission could simultaneously convey communication data from the transmitter to the receiver and extract environmental information from the scattered echoes. Depending on the level at which the integration is taking place, there are various benefits to be gained, including improved size-, hardware-, spectral-, energy-efficiency, and lower latency/signaling cost.

This special issue seeks original articles on ISAC. Topics of interest include, but are not limited to:

- Fundamental information theoretical limits for ISAC
- Network architectures/transmission protocols/frame designs for ISAC
- Spectrum analysis and management of ISAC
- Full duplex/interference management techniques of ISAC
- Precoding/waveform/modulation/receiver design for ISAC
- Security and privacy issues for ISAC
- Machine learning methods in ISAC MIMO/Massive MIMO/intelligent reflecting surface (IRS)/Holographic MIMO surface for ISAC
- Millimeter wave/THz technologies for ISAC
- ISAC for 6G unmanned aerial vehicles (UAV)
- ISAC for 6G vehicular-to-everything (V2X) network
- Standardization progress of ISAC Wi-Fi sensing/positioning/detection for ISAC
- Experimental demonstrations and prototypes

Guest Editors

- YUAN Jinhong, University of New South Wales (Australia)
- FEI Zesong, Beijing Institute of Technology (China)
- WEI Zhiqiang, Xi'an Jiao Tong University (China)

Important Dates

- First Submission Due..... 23 June, 2024
- Review and Final Manuscript Due..... 21 July, 2024
- Publication Date.....25 September, 2024

Manuscript Preparation

Manuscripts must be typed in English and submitted electronically in MS Word (or compatible) format. The word length is approximately 4000 to 8000, and no more than 10 figures and tables should be included. Authors are requested to submit mathematical material and graphics in an editable format.

Online Submission

Please submit your paper through the online submission system of the journal (<https://mc03.manuscriptcentral.com/ztecom>). Creating an account is necessary for submission.