

IMPORTANT DATES

- Manuscript Submission by **6 September 2023**
- First Round Reviews **20 November 2023**
- Second Round Submissions **15 January 2024**
- Second Round Reviews / Editorial Decisions **8 March 2024**
- Publication **June 2024**

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Special Issue on Integrated Sensing and Communications (ISAC)

6G networks have been envisioned as key enablers for numerous emerging applications, including intelligently connected vehicles, smart cities and homes, smart manufacturing, and environmental monitoring. These applications require both extreme wireless connectivity as well as highly accurate and reliable sensing capability. Indeed, among many 6G visions, a common theme is that sensing will play a more significant role than ever before. By equipping wireless systems with the sensing functionality, 6G networks will go beyond classical communication and provide ubiquitous sensing services to measure, or to image, surrounding environments. This sensing functionality and the corresponding ability of the network to collect sensory data from the environment are seen as the foundation for building intelligence in the future smart world. Towards that end, there is a strong need to jointly design sensing and communication operations in 6G networks, which motivates the recent research of Integrated Sensing and Communications (ISAC). Despite having drawn huge attention from both academia and industry, many open problems still remain to be investigated.

This special issue aims to bring together researchers, industry practitioners, and individuals working on the related areas to share their new ideas, latest findings, and state-of-the-art results. List of potential topics to be covered by the special issue 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
- Monostatic, bistatic and multistatic ISAC designs
- Full duplex/interference management techniques of ISAC
- Precoding / waveform / modulation / receiver design for ISAC
- Security and privacy issues for ISAC
- Machine learning/Network Intelligence for ISAC
- MIMO/Massive MIMO/Reconfigurable Intelligent Surface for ISAC
- Millimeter wave/THz technologies for ISAC
- Integrated sensing, localization, and communications
- ISAC for vehicular networks and drones
- Indoor sensing/positioning/detection for ISAC
- Standardization progress/prototyping for ISAC

All manuscripts should contain state-of-the-art material presented in a tutorial or survey style, and must adhere to [IEEE VTM guidelines](#). Papers presenting original and state-of-the-art research and technical contributions will be considered. However, their presentation should be in tutorial-style and accessible for all readers. Submit a PDF of complete manuscripts to [ScholarOne Manuscripts™](#) (select Special Issue option.)