Special Issue

Integrated Sensing and Communications (ISAC): Opportunities and Challenges

Message from the Guest Editor

Integrated sensing and communication (ISAC) is one of the key features of the coming sixth-generation cellular system (6G). The ultimate goal of ISAC is to facilitate wireless sensing and communications via uniform infrastructure and signals. Despite the existing related literature, there are still issues open for discussion. The topics that will be covered in this issue include, but are not limited to, the following:

- Fundamental limits and performance analysis of ISAC;
- Advanced waveform, channel coding, and modulation designs for ISAC;
- ISAC-related emerging physical-layer technologies;
- Novel multiple-access designs for ISAC;
- Machine learning for ISAC;
- Channel modeling for ISAC;
- Resource allocation for ISAC:
- Demonstration of ISAC in motion recognition, trajectory tracking, environment sensing, etc.;
- ISAC theory and implementation for a low-attitude economy.

Guest Editor

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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