

Call for Papers

Integrated Sensing, Navigation, Communication and Control (ISNCC) Workshop
The 22nd International Conference on Wireless Communications and Mobile Computing

Website: <http://iwcmc.net/2026/>

Submission Link: <https://edas.info/N34281>

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Scope

The research on the integration of sensing, navigation, communication, and control has drawn ever increasing attention in both academia and industry. Exploiting the inherent sensing capability of various kinds of signals, such as radio-frequency signals, optical wireless signals, and acoustic signals, some important information about the communication channel and the environment can be obtained or computed, which can be fully exploited to improve the performance of communication, navigation and control. On the other hand, more knowledge, higher reliability and better accuracy in sensing, localization, navigation, control, target detection and/or recognition can be achieved through properly designed communications and networks. Via the communication links, critical information and data can be shared between multiple nodes or smart agents, which can further bring more benefits to the integrated system by better cooperation and intelligent control. In this regard, the integration of sensing, navigation, communication and control is becoming a hot trend towards the next-generation information and communication networks, bringing lots of opportunities for new theories, technologies, and applications. Thus, this workshop is soliciting the new research works and practical applications in the area of cutting-edge techniques and applications of integrated sensing, navigation, communications and control (ISNCC) using radio-frequency signals, optical wireless signals and/or other kinds of signals.

Topics

Accepted papers will be published in the IEEE IWCMC 2026 proceedings and will be submitted to the IEEE digital library (IEEE Xplore). Authors are welcome to submit original papers (not published before and/or simultaneously to another venue) with topics that include but are not limited to:

- Fundamental theory for integrated sensing, navigation, communications and control (ISNCC)
- Channel characterization and modelling for wireless and/or optical wireless signals
- Transmitter and receiver design and transceiver technologies for ISNCC
- New waveform design and new modulation techniques aimed for ISNCC

- Localization and navigation using radio frequency or optical wireless signals
- Target sensing, detection and recognition based on radio frequency or optical wireless signals
- Cooperative and intelligent communications and networking aided by sensing
- Artificial intelligence enabled approaches and systems for ISNCC
- Seamless and flexible outdoor-indoor navigation and sensing
- Adaptive communication and smart networking aided by sensing and localization
- Visible-light-based communications and positioning
- Reconfigurable intelligent surface-aided ISNCC
- Underwater optical wireless or acoustic communications, sensing and navigation
- UAV networking, navigation and cooperative control
- Sensing and navigation techniques in special or extreme environments
- Federated learning and split learning for ISNCC
- Semantic communication for ISNCC
- Secure large AI model for ISNCC
- New architecture and framework of ISNCC
- New applications and scenarios of ISNCC
- Field tests and experimental results of ISNCC systems

Submitted papers are encouraged to address novel technical challenges or industrial and standard aspects of the key technologies for sustainable and secure cognitive buildings/cities.

Important Dates

Same deadlines as the main conference dates.