

ICL-GNSS
INTERNATIONAL CONFERENCE ON LOCALIZATION AND GNSS

International Conference on Localization and GNSS 2027
Barcelona, Spain, October 5-7, 2027

Conference scope: Reliable navigation and positioning are becoming essential in applications for IoT in industry and logistic applications, in smart city environments, for safety-critical purposes, in public services and consumer products. A robust localization solution, which will be available continuously, is needed regardless outdoor or indoor, and on different platforms. ICL-GNSS addresses the latest research on wireless and satellite-based positioning techniques to provide reliable and accurate position information with low latency. The emphasis is on the design of mass-market navigation receivers and related tools and methodologies, but also many kinds of sensing devices, wireless systems with localization capabilities, and location-aware applications are within the scope of ICL-GNSS.

Topics of interest include but are not limited to:

- Antennas and RF front-ends for GNSS receivers
- Acquisition, tracking and navigation algorithms
- Authentication, security and/or privacy in navigation systems
- Cloud-based position computation
- Cognitive positioning architectures
- Context awareness
- Cooperative and peer-to-peer positioning
- Design, prototyping and testing of positioning devices
- Detection and mitigation techniques for adverse propagation conditions
- Device-free localization
- GNSS applications for remote sensing, ionospheric sounding and space weather
- Indoor positioning and localization in densely populated urban areas
- Integrated positioning, sensing and communications
- Localization for autonomous systems
- Location-based services (LBS)
- Machine learning for positioning
- Multi-GNSS receivers and emerging navigation satellite systems
- Positioning based on signals-of-opportunity
- Precise timing for GNSS, terrestrial and non-terrestrial systems
- Radar and radio-based sensing
- Spoofing and jamming countermeasures
- Terahertz based localization
- Wireless and sensor-based localization
- 5G/6G Positioning

Paper submission: Submitted papers must represent original material that is not currently under review in any other conference or journal and has not been previously published. Papers should be four to six pages long in the specified format (references on page 7 allowed). Papers should be submitted as pdf files prepared according to IEEE two-column A4 format guidelines. We invite you to submit your original full papers on the most recent results and technology trends in the fields of positioning. Accepted and presented papers will be published in electronic conference proceedings.

Traditionally, ICL-GNSS papers will be submitted to IEEE Xplore for inclusion in the database and indexing. Top-tier papers from the conference will be invited to submit an extended version to the ***IEEE Journal on Indoor and Seamless Positioning and Navigation*** open-access journal.

Since 2020 we also have a co-located industry/work-in-progress workshop ***WIPHAL: Work-in-Progress in Hardware and Software for Location Computation***. The papers accepted to the workshop will be submitted to the CEUR-WS.org, an open-access repository indexed by Scopus, Ei Compendex and DBLP. For those proceedings 5-9 pages single-column format will be used. All papers submitted to ICL-GNSS and WIPHAL will undergo a similar peer review based on the full-length paper.

Contacts and Information https://events.tuni.fi/icl-gnss and iclgnss@tuni.fi

Dates and Deadlines

Full paper submission: May 10, 2027
WIPHAL papers: July 31, 2027
Notification of acceptance: June 15, 2027 (WIPHAL August 23)
Camera-ready papers: August 16, 2027 (WIPHAL September 13)

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