



IPIN 2025

FIFTEENTH INTERNATIONAL CONFERENCE ON
INDOOR POSITIONING
AND INDOOR NAVIGATION

15th – 18th September 2025, Tampere, Finland

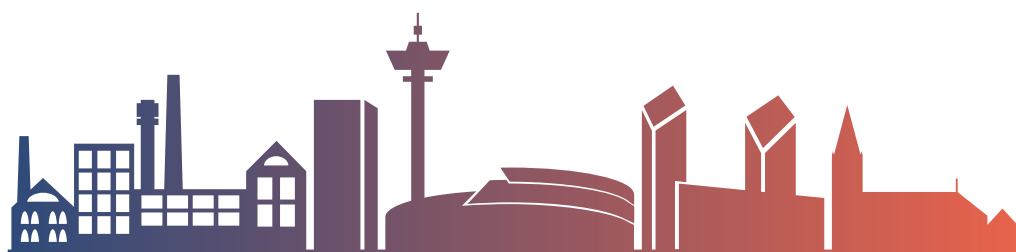
Proceedings of the

Workshop for Computing & Advanced Localization

at the Fifteenth International Conference on
Indoor Positioning and Indoor Navigation

IPIN-WCAL 2025

September 15-18, 2025
Tampere, Finland



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Preface

The 15th International Conference on Indoor Positioning and Indoor Navigation (IPIN 2025) was held in Tampere, Finland, on September 15-18, 2025. This proceeding contains the papers presented at the Workshop for Computing & Advanced Localization, colocated with IPIN 2025.

First held in Zurich, Switzerland in 2010, IPIN is a unique event dedicated to indoor positioning, its applications and development. The last ten years have seen enormous technical progress in this field, yet, in contrast with outdoors well-established GNSS solutions, no technology still exists cheap and accurate enough for the general market. The potential applications of indoor localisation are all-encompassing, from home to wide public areas, from IoT and personal devices to surveillance and crowd behaviour applications, from casual use to mission-critical systems.

The conference received 107 regular papers and 38 WCAL papers with authors from universities, research institutes and renowned companies in 24 different countries across the 5 continents. Each paper was reviewed by at least two members of the Technical Program Committee of the Conference. 59 out of 107 Regular Papers were accepted and submitted to the IEEE Xplore Digital Library, while 33 were accepted as WCAL papers and submitted to CEUR Workshop Proceedings. Regular Papers and WCAL papers were presented in dedicated sessions.

IPIN 2025 hosted 1 Workshop, 2 Tutorials, 4 Keynotes, 18 Parallel Sessions, including Machine Learning, Acoustic and Ultrasound systems, Visual and Optical System, Inertial Measurement Units, Radio Signal Processing, UWB, BLE and Wi-Fi, etc. There were 147 registered on-site attendees at this onsite conference.

The conference also hosted the 12th International Indoor Positioning and Navigation Competition from September 8 to October 10 for offsite participants and from October 13 to 14 for onsite participants. The competition included six tracks, such as smartphone positioning, foot-mounted IMU positioning, smartphone with navigation robot, smartphone-onvehicle positioning and 5G CIR + IMU, attracting 13 teams from around the world. The global synchronous online competition mode, first adopted in 2022, was used again, showcasing the highest level of the current international indoor positioning and navigation field. Additionally, two onsite competition tracks were held at Tampere University, City Centre Campus.

IPIN 2025 awarded 2 best conference papers, 3 workshop papers, 3 best posters, and 5 competition track winners. The best conference paper awardees are given the opportunity to send a technically extended version to the IEEE Journal of Indoor and Seamless Positioning and Navigation (J-ISPIN). The journal is currently the only international academic journal focusing on the field of indoor navigation and positioning.

Thanks to all members of the IPIN 2025 Technical Program Committee for their effort in the review process that was fundamental for maintaining the high scientific level of the conference. Thanks to all members of Organizing Committee for their hard work in making the meeting go on smoothly. Thanks to all the researchers who supported this event by submitting their work and actively participating in it. Thanks to all participants for their efforts to make IPIN 2025 a success.

September 2025
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