



IPIN 2020

ELEVENTH INTERNATIONAL CONFERENCE ON
**INDOOR POSITIONING
AND INDOOR NAVIGATION**

December 14, 2020, ONLINE



IPIN Competition 2020

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Why a competition

- **Indoor localisation** has seen technical advances for over a decade, yet market applications are still far away
- Standardisation is lagging behind
- No interoperability standards
- Few studies on security and privacy
- **No general way of comparing systems**



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The EvAAL framework

- A criterion for performing comparison among indoor localisation systems
- Born as the foundation of the EvAAL competition 2011-2013
- **Base for the IPIN competitions 2014-2020**
- Focused on realistic, real-time, black-box system evaluation



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Attendance of IPIN competitions

| Edition | | On-site | | Off-site | | Overall | |
|---------|--------------|---------|---------------------------|----------|---------------------------|---------|---------------------------|
| Year | Location | Tracks | Competitors (submissions) | Tracks | Competitors (submissions) | Tracks | Competitors (submissions) |
| 2014 | Busan (KR) | 1 | 7 (11) | | | 1 | 7 (11) |
| 2015 | Banff (CA) | 2 | 6 (8) | 1 | 4 (4) | 3 | 10 (12) |
| 2016 | Alcalá (ES) | 2 | 12 (14) | 2 | 7 (9) | 4 | 19 (23) |
| 2017 | Sapporo (JP) | 2 | 10 (18) | 2 | 10 (11) | 4 | 20 (29) |
| 2018 | Nantes (FR) | 2 | 15 (17) | 2 | 19 (22) | 4 | 34 (39) |
| 2019 | Pisa (IT) | 2 | 10 (16) | 3 | 20 (26) | 5 | 30 (42) |
| 2020 | online | | | 5 | 22 (32) | 5 | 22 (32) |



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Based on the EvAAL framework

Track 3: Smartphone (off-site)

Track 4: Foot-mounted (off-site)

Track 5: xDR in manufacturing (off-site)

Track 6: On-vehicle smartphone (off-site)

Track 7: Channel impulse response (off-site)



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| | Track 3 | Track 4 | Track 5 | Track 6 | Track 7 | Total |
|-------------|---------|---------|---------|---------|---------|-----------|
| Submissions | 14 | 7 | 4 | 5 | 2 | 30 |
| Competitors | 11 | 3 | 2 | 3 | 1 | 22 |



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Recording

We will make the registration of the event available, after asking permission to the speakers

Prizes

- Winners' prize is 850 € for Tracks 3, 4, 6, 7
 - runner-up prizes awarded for Tracks 3, 4
- Winner's prizes for the 2 Track 5 subtracks is 2400 € overall

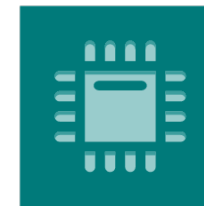


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Publishing your results

- now - March 2021
 - **IEEE Sensors Journal Special Issue on *Advanced Sensors and Sensing Technologies for indoor positioning and navigation***
- March 2021 - June 2021 (estimate)
 - IPIN Conference
- April 2021 - September 2021
 - MDPI Sensors special issue (to be launched)
- October 2021 - February 2022
 - Frontiers Special special issues (to be launched)



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Apologises for connection problems
and for glitches while switching speakers

Thank you!

see you next year