



## Special Session "Experimental Evaluation of Photodiode-based Visible Light Positioning"

### Abstract

The community of indoor positioning research has identified the need for accurate and reliable localization. Visible Light Positioning (VLP) is a relatively new positioning technology, whereby light signals are being used as a means for localizing objects. VLP is being regarded as an alternative for Ultra-Wideband (UWB) localisation, with similar indoor accuracies, below 30 cm. Many of the research works on VLP still focus on simulations. Experimental accuracy is often much worse though, due to imperfections in the configuration such as transmitter or receiver tilt, signal imperfections, light reflections or blockages, deviations in the LEDs' radiation pattern,...

This special session aims to discuss experimental evaluations of VLP configurations and showcase advancements in the field of VLP. It specifically focuses on photodiode-based receivers, camera-based systems are out-of-scope for this session. The session will contribute to a better assessment of the future potential of photodiode-based VLP, as an alternative for other accurate indoor positioning technologies.

### In this Special Session, we invite authors to submit papers related (**but not limited**) to:

- Experimental evaluation of photodiode-based Visible Light Positioning
- Positioning algorithms
- Fusion with other data sources
- Machine-learning approaches
- Testbeds and datasets
- Tackling causes of VLP performance deterioration

### Keywords

Visible Light Positioning, experiment, photodiode

### Organizers:

- David Plets

### Important Dates

- Submission deadline: 15 May 2023
- Notification of acceptance: 21 June 2023

Manuscripts are submitted according to the IPIN 2023 Conference instructions for authors. Papers undergo a single-blind review process by at least two reviewers. Accepted regular papers are submitted to IEEE Xplore Digital Library, accepted WiP papers to CEUR-WS.org, which is currently indexed by Scopus, Ei Compindex and DBLP.

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If you have any further questions, please contact David Plets (david.plets@ugent.be)