



## Special Session “5G Positioning: 3GPP standard and key techniques”

### Abstract

User positioning in wireless networks is of increasing importance for public security, commercial services, and applications in vertical industries. 5G started its industrial standard in 3GPP Release 16, which was completed during 2018 – 2020. 5G positioning has aggressive positioning targets including: wide range of accuracy, from meter-level to cm-level accuracy; wide range of latency, from second to millisecond level; and use of IoT devices with very low power consumption. The considered scenarios of interest refer to general indoor and outdoor conditions, industrial factory, V2X and others. Therefore, it is of interest to focus on the new emerging 5G positioning standard and its associated techniques before wide commercial applicability.

The special session will include, but will not be limited to, the following aspects of 5G positioning:

- Use cases, requirements, and applications for 5G positioning
- 3GPP standards on New Radio (NR) positioning and trends
- 5G positioning prototypes and testbeds
- Advanced algorithms for high-accuracy measurements and positioning
- Advanced algorithms for multipath interference mitigation
- Positioning techniques for NLOS channels
- mmWave positioning

### Keywords

Fifth generation mobile communication (5G); Industrial Internet-of-Things (IIOT), New Radio (NR)

### Technical Program Committee

Session Chairs:

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### Important Dates

- Submission deadline: 15 May 2021
- Notification of acceptance: 21 June 2021

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