



Workshop on Industrial Private 5G-and-beyond Wireless Networks



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Important Dates

- ❖ Paper submission deadline:
January 20, 2022
- ❖ Notification of acceptance:
March 06, 2022
- ❖ Camera-ready papers:
March 15, 2022

Submission link

<https://edas.info/N28800>

Scope

The fifth generation (5G) of radio technology will deliver multi-Gbps peak data rates, ultra-reliable low latency, and massive connectivity, thus having a large number of new applications and opening a wide variety of business opportunities. For example, 5G has the potential to shape the industrial world, through the automation of everything. However, public 5G networks, which are owned and operated by mobile network operators, are not suited for the demanding industrial use cases. For instance, on their pursuit of revenue, mobile network operators may deploy networks only in well-populated areas with plenty of subscribers. This may result in limited public network coverage, particularly in some enterprise and remote areas, far away from business hubs. Public network coverage may also often be insufficient within some industrial buildings and factories, with harsh radio frequency operating conditions. Unplanned inter-cell interference may also comprise necessary reliability and latency targets. Therefore, industrial private networks have emerged and are attracting a significant interest to address the above-mentioned defects. This workshop aims to bring researchers for technical discussion on fundamental and practically relevant questions to many emerging challenges in industrial private wireless networks.

Topics

This workshop seeks original completed and unpublished work, not currently under review by any other journal/magazine/conference. Topics of interest include, but are not limited to:

- New private networking architectures, including OpenRAN.
- Integration of wireless systems into currently deployed industrial networks.
- Intelligent network orchestration and radio resource management (including edge computing and edge intelligence).
- Novel fronthaul and backhaul solutions.
- Efficient multi-band aggregation, multi-channel operations, and multi-node cooperation.
- Further enhanced URLLC for industrial private networks.
- Integration of time sensitive networking in wireless networks.
- Spectrum agile and robust hardware.
- Private network planning, optimization and energy efficiency.
- Distributed learning.
- Use of RF-controlled intelligent reflecting surface.
- Use of unmanned vehicular, e.g., UAVs in the private networks.
- Channel measurements and modeling in factories.
- Performance measurement and results for industrial private networks.
- Use of integrated sensing and communications in industrial networks.

Paper Submission

All submissions must be written in English in the standard IEEE two-column conference format and are limited to a maximum paper length of six (6) printed pages (10-point font) including figures and references. EDAS is configured to not permit the uploading of review manuscripts that exceed 6 pages. Once accepted, the final manuscript may have a 7th page, but such papers will incur an overlength page charge of US\$100.