



WS-04: 2ND WORKSHOP ON INDUSTRIAL PRIVATE 5G-AND-BEYOND WIRELESS NETWORKS

SCOPE

The fifth generation (5G)-and-beyond of radio technology delivers multi-Gbps peak data rates, ultra-reliable low latency, and massive connectivity. Thus, it provides a large number of new applications and opens a wide variety of business opportunities. 5G-and-beyond 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, have drawbacks. On their pursuit of revenue, mobile network operators may deploy networks only in densely populated areas with a vast number 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. Industrial private networks have emerged and are attracting a significant interest to address the above-mentioned challenges. This workshop aims to bring researchers together for technical discussion on fundamental and practically relevant questions to many emerging challenges in industrial private wireless networks.

TOPICS OF INTEREST

This workshop seeks original completed and unpublished work, not currently under review by any other journal/magazine/conference.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 cooperative edge computing, reinforcement learning, spectrum allocation, and spectrum management)
- Wireless data traffic characterization and forecasting
- Further enhanced URLLC for industrial private networks
- Intelligent signal processing for reduced interference
- Spectrum agile and robust hardware
- Integration of time sensitive networking in industrial wireless networks
- Private network planning, optimization, and energy efficiency
- Distributed privacy-preserving learning across multiple private networks
- RF-controlled intelligent reflecting surface for industrial private networks
- Use of unmanned vehicles, e.g., UAVs, in industrial networks
- Accurate localization and tracking and its integration with integrated sensing and communications
- Efficient multi-band aggregation, multi-node cooperation, and distributed MIMO

PAPER SUBMISSIONS

All papers for Workshops should be submitted via EDAS. Full instructions on how to submit papers are provided on the IEEE ICC 2023 website:

icc2023.ieee-icc.org

WORKSHOP CO-CHAIRS

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IMPORTANT DATES

- Paper Submission Deadline:** 20 January 2023
- Paper Acceptance Notification:** 6 March 2023
- Camera Ready and Registration for accepted papers:** 15 March 2023