

Annual Conference of the IEEE Industrial Electronics Society (IECON 2022)

Special Session on

Industrial 5G/WiFi Technology and Standards for the Harmonization of 5G/WiFi and IIoT

Organized by

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Call for Papers

Theme:

This session addresses how 5G/WiFi can benefit industry and the need for developing standards for harmonizing 5G/WiFi and Industrial IoT (IIoT). The 5G/WiFi communication standard has enabled high-speed, reliable and secure data transmission with short response times that enables new ways to work, think, and solve traditional business and industry challenges. Specifically, 5G/WiFi makes manufacturing more flexible, productive and mobile. Therefore, 5G/WiFi becomes an important prerequisite for the factory of the future. 5G/WiFi has an inherently higher security level that is rapidly becoming the world's number one catalyst for enterprise digital transformation. The secure and low latency of 5G/WiFi networks can also facilitate the connected health that is one of the most exciting sectors of the IoT industry. Connected health generally refers to a healthcare management model that relies on technology for remote delivery of healthcare services or management of health conditions including telemedicine, remote patient monitoring, decentralized clinical trials, and mobile personal emergency response systems. Fully autonomous vehicles will not be possible until 5G/WiFi is mainstream due to the latency and accuracy needed to ensure safe self-driving cars. This is because connected cars have hundreds of sensors which generate tons of data that requires handling, processing and analysis. It is also essential to have standards to harmonize 5G/WiFi and Industrial IoT (IIoT) to reduce the will ease integration of dissimilar elements into systems and keep the costs under control and open more markets.

Topics of interest include, but are not limited to:

1	5G/WiFi in manufacturing
2	5G/WiFi network design for emerging IIoT applications
3	5G/WiFi sensor networks for industrial applications
4	Industrial 5G/WiFi system practical considerations and deployment lifecycle
5	5G/WiFi network modelling and performance analysis
6	Industry 4.0 and 5G/WiFi
7	5G/WiFi technology in healthcare
8	Standards for harmonizing 5G/WiFi and IIoT
9	Smart vehicles and 5G/WiFi mobile transport
10	5G/WiFi industrial IoT use cases

Sponsoring IES Technical Committees

IEEE IES Technical Committee on standards. <https://sites.google.com/view/iesstandardstc/>
IEEE IES Technical Committee on Building Automation, Control and Management:
<https://bacm.ieee-ies.org/>

Submissions Procedure:

All the instructions for paper submission are included in the conference website: <https://iecon2022.org/>

Deadlines:

Full paper submission: April 15, 2022
Paper acceptance notification: June 17, 2022
Camera-ready paper submission: July 29, 2022