wireless CONGRESS
systems & applications

The Annual Highlight
of the Wireless Community!

November 16-17, 2022
Munich in parallel to electronica

CALL FOR PAPERS
Submit Your Abstract until
May 20, 2022!

www.wireless-congress.com

Wireless trends for 2022 and beyond: open, scalable, private, efficient, innovative, intelligent

Wireless communication continues to be a central driver for many innovations in technologies and in applications related to the “Internet of Everything” and the “Information at Your Fingertip”.
Many trends can be observed:

- Wireless communication is getting increasingly open: from tooling over the realm of maker-scenes and local communication gadgets to the world of professional cellular communications: More and more open elements are around, like Open SDR, LoRaWAN stacks, OpenThread, OpenWrt, and finally also Open RAN …
- Wireless communication is putting more and more emphasis on scalability and interference stability. Scalability is achieved by a broad variety of technologies like micro- and nano-cells, advanced coding schemes, massive MIMO, Non-Orthogonal Multiple Access (NOMA), narrow-band transmission, ultra-wide band, just to name a few. Other technologies help with interference stability, like adaptive cognitive radio techniques and more and more advanced frequency hopping schemes.
- Where in the past, private wireless networks could be found only in WPAN and WLAN solutions, also this has significantly changed. Not only private LPWAN networks for LoRaWAN or mioty are around, but also campus networks allow private cellular networks.
- Efficiency of wireless systems and circuits is also increasing, with regard to energy, flexibility, bandwidth, and – above all – cost. Driven by most recent semiconductor technologies, software defined radio, and huge production volumes.
- Wireless communication continues to be one of the drivers for advances in microelectronics and semiconductors. At the same time, it is also benefitting significantly from these advances.
- And – of course – also wireless systems become intelligent. From cognitive radio over adaptive data rate to anomaly detection and resource planning, artificial intelligence entries the scene also here.

So, there are interesting trends to observe, new truth to be found, and novel applications to be developed! The 19th Wireless Congress: Systems and Applications will take place in Munich on November 16th and 17th, 2022. Co-located with electronica, it is a platform that will bring together application-oriented researchers, product developers, managers, and innovators. In short: open and innovative people.

We invite you to submit proposals for topics on current developments and trends, which can be elaborated in lectures, training courses or discussion panels.

Best wishes
Prof. Dr.-Ing. Axel Sikora
Scientific Advisor

Call for Papers & Workshops

New technologies – paving the way for new applications

5G/6G, Open RAN, Wi-Fi 6/6E/7, DECT-2020 and UWB are just a few examples of the on-going progress in wireless technology. The new developments promise, among other things, higher data rates, shorter latency and the management of networks with millions of end nodes. They will not only replace their predecessors, but open up new markets for new applications.

The **Wireless Congress 2022** will focus on the latest developments and the practical application of advanced wireless systems in industry: **5G/5.xG/6G, Wi-Fi 6/6E/7, DECT-2020, TSN for wireless networks, resilient networks, wireless sensing, information-centric networking, software defined networking (SDN), next generation LPWAN** and much more as well as the use of **AI in communication networks**.

The technical journal *Elektronik*, the Messe München, organizers of the electronica trade fair and the German Electro and Digital Industry Association (ZVEI), are therefore staging the **19th Wireless Congress: Systems & Applications** on **November 16th and 17th, 2022** in Munich – in parallel to the electronica trade fair.

The program committee of the Wireless Congress invites all experts in this field to submit their proposals for presentations (30 min) and workshops or tutorials (1.5 – 3 h). Furthermore, we warmly invite representatives of academia to give insights into their future-driven and application-oriented research.

Presentations are to be held in English. Contributions shall cover fundamentals, recent trends, technologies, applications, standardization issues, certification or market forecasts. All contributions shall be purely technical and application-oriented. Marketing papers will not be accepted. All submissions will be carefully reviewed and selected by the program committee.

The papers will be published in the "Proceedings of the Wireless Congress 2022: Systems & Applications", ISBN 978-3-645-50191-0. Each paper will be scientifically referenced with page numbers. It also will be possible to provide a short paper only (1 to 3 pages) to complement the presentation slides instead of a full paper.

Organized by:

Elektronik electronica ZVEI: Die Elektroindustrie

…Deadlines and Topics

Wireless Congress 2022: Systems & Applications

November 16-17, 2022 | Munich, Germany

Topics of interest include, but are not limited to: trends, design, technology and applications in the following sectors:

Technologies

- Cellular Communication
- Low Power Wide Area Networks (LPWAN)
- Software Defined Networking (SDN)
- AI in Communication Systems
- Emerging Technologies, e.g. Resilient Networking, Information Centric Networks
- Real Time Applications, Wireless TSN
- Software Defined Radio and Cognitive Radio
- Wireless Sensing, Radar (mmWave, THz)
- EMC and Interoperability
- Wireless Test and Measurement
- Frontends, Transceivers and Antenna Design
- RF Semiconductors and Components
- Energy Harvesting for Wireless Systems

Standards as of Today and of Tomorrow

- 5G, 5.xG, and 6G, 6LoWPAN, Ant, Bluetooth, DECT and DECT-2020, EnOcean, IO-Link Wireless, IP 500, IQRF, KNX RF, LiFi, LoRa/LoRaWAN, Matter, mioty, NB-IoT, NeoCortec, NFC, Sigfox, Thread, ULE, UWB, Wi-Fi, Wireless M-Bus/OMS, Wirepas, Zigbee, Z-Wave, etc.
- Standardization, Qualification, Certification and Compliance, Regulatory Issues

Applications

- Wireless Automation, M2M
- Tactile Internet, VR/AR, URLLC, eMMB
- Automotive Wireless
- Wireless Internet of Things
- Health and Medical Wireless
- Wireless for Industrial Use
- Retrofit Wireless Integration in the Industry
- Smart Factory, Smart City, Smart Home and Metering
- Localization and Location Based Services

Systems

- Campus Networks
- Mobile Edge Computing
- (Ultra) Low-Power Wireless Networks
- Wireless Sensor Networks, mMTC
- Security Threats & Countermeasures in Wireless Systems
- Gateways and Middleware for Wireless Networks
- Integration of Wireless into Backend Systems
- Seamless Management of Wireless Networks

Other topics out of the wide field of "Wireless Technologies"

In parallel, we plan to offer specific technology tracks and workshops to consider in-depth information about the leading wireless standards and technologies.

Please submit your proposal online under: www.wireless-congress.com

We are looking forward to your submission!

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Harry Schubert
Editor, Elektronik

Please make a note of the following deadlines:

Deadline for Abstracts:
May 20, 2022

Notification of Acceptance:
End of June 2022

Deadline for Final Paper:
September 24, 2022

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