wirelessCONGRESS
systems & applications

The Annual Highlight
of the Wireless Community!

November 10 – 11, 2021
Munich l Germany

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MAY 17, 2021!

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Innovative Radio for Innovative Applications

Wireless communication continues to be a central driver for many innovations in technologies and applications related to the "Internet of Everything" - even or especially in these Corona times. It combines some unique properties:

- On the one hand, radio communication is commercially very successful with many standardized and mature products. On the other hand, it can also be very experimental, as it encompasses new techniques and research directions. Low-power wide area technologies (LPWAN), even securing open radio channels, and ensuring real-time capability (Quality of Service) over licensed or license-free frequency bands are currently perceived as being particularly innovative areas.
- It uses leading-edge semiconductor technology, while at the same time being an important driver for investment in this area. This is where "normal digital scaling" as well as advances in analog and high-frequency circuits and the reduction of power consumption at the system level, have become the focus of attention.
- It is a truly global community that is working hard on new protocols such as 5G and even next generation 6G. The U.S. companies involved continue to maintain a very strong position in standards such as Bluetooth or WiFi. However, in the area of mobile communications in particular, a clear shift from Europe and the USA to Asia can be observed. At the same time regional characteristics are beginning to influence development of many technologies. This applies, for example, to communication solutions for factory and process automation, where German manufacturers are in a central position. But also similar applications, like for example, for smart metering, may vary widely from region to region.
- Radio of course is basically all about a specification at the physical layer. However, due to its flexibility and performance, this has a major influence on network architectures and communication applications.
- Interestingly, radio waves are not only being used for communication. Increasing frequencies up to the terahertz bands also enables recognition and sensory applications at the same time. While the community has been intensively occupied for many years with tasks related to radio-based real-time localization (RTL), new applications are currently emerging around "wireless sensing". These are based, for example, on observing the passive properties of radio channels to detect objects in space, or on the reflection or penetration properties of materials and objects.

So you see, there is a lot to discuss, to understand and to innovate. The 18th Wireless Congress: Systems and Applications, which will take place in Munich on November 10th and 11th, 2021, 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 & stay safe
Prof. Dr.-Ing. Axel Sikora
Scientific Advisor

Call for Papers & Workshops

Greater bandwidth, higher frequencies, better availability and more reliability.

5G and Wi-Fi 6E are just two of the well-known wireless technologies that are opening up new, higher frequency bands for a broad range of applications. Along with the **mmWave** bands, the **THz** spectrum is currently being targeted at communication applications as well as sensor technology, e.g. for material analysis.

However, this does not mean that lower frequency ranges are losing their appeal. Quite the contrary. New wireless protocols are enabling applications that have high requirements in terms of availability, reliability and robustness in the industrial, automotive and medical markets.

The **Wireless Congress 2021** will focus on the latest developments and the practical application of advanced wireless systems in industry: **5G, 6G, Wi-Fi 6, 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 Electrical and Electronic Manufacturers' Association (ZVEI), are therefore staging the Wireless Congress: Systems & Applications on November 10-11, 2021 in Munich –along with an exhibition in parallel.

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 and 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 2021: Systems & Applications”, including ISBN. 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:

…Deadlines and Topics

Wireless Congress 2021: Systems & Applications

November 10-11, 2021, Germany

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

Technologies

- Mobile Communication
- Low Power Wide Area Networks
- 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
- EMC and Interoperability
- Wireless Test and Measurement
- Frontends and Transceivers
- RF Semiconductors and Components
- Antenna Design
- Energy Harvesting for Wireless Systems

Standards

- 4G, 5G and 6G, 6LoWPAN, Ant, Bluetooth, DECT, IP 500, IQRF, KNX RF, LiFi, LoRa/LoRaWAN, Mioty, NeoCortec, NFC, Sigfox, ULE, UWB, Wi-Fi, 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 Integration of Wireless into Industrial Systems
- Smart Factory, Smart City, Smart Home and Metering
- Localization and Location Based Services

Systems

- Campus networks
- (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"

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

New format from 2021: Are you interested in product-specific presentations in our additional **"Manufacturer Track"? Get in touch with us!**
Ms. Corina Prell, Sales Manager Events
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DEADLINES
Deadline for Abstracts: May 17, 2021
Notification of Acceptance: July 2021

We are looking forward to your submission!

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