

anniversary

The Annual Highlight of the Wireless Community!

November 7-8, 2023 Munich, Germany

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Wireless Congress 2023: Systems & Applications





WIRELESS CONGRESS 2023 – HAPPY BIRTHDAY!

When the first Wireless Congress: Systems & Applications opened its doors 20 years ago, in 2004, the wireless world looked very different. Wireless Technology was in its infancy, and many applications were still emerging. Short Range Wireless Networks and especially Bluetooth, IEEE802.15.4 and ZigBee were in the starting blocks, UMTS 3G networks had just started their rollouts, and Wireless LAN (Wi-Fi) introduced the IEEE802.11g standard with gross data rates of 54 Mbit/s. Also, the battle for Wi-Fi security was in full swing.

Even in its first year, the Wireless Congress was a premiere event for specialists to discuss all the different aspects of wireless communication. I remember presentations spanning the whole range from theoretical research analyses from academia to very practice-oriented presentations from industry, from components to systems, from applications to technologies.

Since those early days, the wireless world has grown and matured. And so has the Wireless Congress, which, however, is still pursuing the same objectives that it did 20 years ago. Over all these years, Wireless Congress has maintained its position at the leading-edge and is now a permanent fixture in the annual calendar of many developers, system designers, technology decision makers, project managers and wireless system authorities.

This is all the more true given recent stunning developments. Legacy technologies, like Bluetooth and Wi-Fi have seen many innovations and iterations. Fundamentally new technologies like Narrowband IoT/5G or Low-Power Wide Area Networks (LPWAN) have found acceptance in the markets. Today preparation for 6G mobile networks is in full swing, so much so that we already see wireless technologies as key enablers for innovative applications and business models in industrial, automotive, medical, energy, and many more applications.

With the 20th congress program we will continue to provide information on novel wireless technologies and applications. We are very much looking forward to your interesting submission and to meeting you in Munich at the Wireless Congress 2023 – and having a birthday party!

Best wishes

Prof. Dr.-Ing. Dipl.-Ing. Dipl. Wirt.-Ing. Axel SikoraHochschule Offenburg / Hahn-Schickard
Scientific Advisor

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CALL FOR PAPERS & WORKSHOPS

New technologies for future innovations

Matter, UWB and NR+ can certainly be counted as the innovation drivers this year. The market power of the supporting companies alone will make Matter a success story and boost the smart home and home automation market. NR+, as DECT-2020 is now calling itself, will be implemented in products in 2023 – ready to develop systems and applications based on it. UWB will conquer the smart phone market and enable numerous applications with high security requirements, not only in automobiles, but also in the smart home, in companies and in the commercial world.

In its 20th anniversary year, the Wireless Congress will also be focusing on the latest developments and the practical application of advanced wireless systems in industry.

The technical journal Elektronik, the Messe München, organizers of the electronica trade fair and the Electro and Digital Industry Association (ZVEI), are therefore staging the 20th Wireless Congress: Systems & Applications on November 7th and 8th, 2023 in Munich.

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 2023: Systems & Applications", ISBN 978-3-645-50196-5. 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:







Wireless Congress 2023: Systems & Applications





TOPICS OF INTEREST INCLUDE, but are not limited to: trends, design, technology and applications in the following sectors:

Technologies

- Cellular Communication (5G, 6G and beyond)
- Low Power Wide Area Networks (LPWAN)
- Software Defined Networking (SDN)
- Al in Communication Systems
- Emerging Technologies, e.g. Resilient Networking, Information Centric Networks
- Real Time Applications, Wireless TSN
- Software Defined Radio and Cognitive Radio
- Frontends, Transceivers and Antenna Design
- RF Semiconductors and Components
- Wireless Sensing, Radar (mmWave, THz)
- EMC and Interoperability
- Wireless Test and Measurement
- Energy Harvesting for Wireless Systems

Standards as of Today and of Tomorrow

- 5G, 5.xG, and 6G, 6LoWPAN, Ant, Bluetooth, DECT and NR+ (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 for Industrial Use, Automation, M2M
- Smart Factory, Smart City, Smart Home and Metering
- Retrofit Wireless Integration in the Industry
- Tactile Internet, VR/AR, URLLC, eMMB
- Automotive Wireless
- Radio Access Systems
- Wireless Internet of Things
- Health and Medical Wireless
- 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
- Sustainability and Green ICT

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

In parallel, we plan to offer specific technology tracks and workshops for 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!



Prof. Dr.-Ing. Dipl.-Ing. Dipl. Wirt.-Ing. **Axel Sikora** Hochschule Offenburg Hahn-Schickard Scientific Advisor



Dipl.-Ing. **Harry Schubert**Editor, Elektronik

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TESTIMONIALS



Dave Cavalcanti, Wireless TSN Working Group Chair for Avnu Alliance

"Wireless Congress has been an excellent platform for Avnu Alliance to connect with decision makers in the wireless systems industry. Wireless Time Sensitive Networking (TSN) capabilities are quickly evolving from concept to reality. We are grateful for the opportunity to share the latest updates on TSN for wireless networks to the attendees of Wireless Congress and we congratulate Wireless Congress for celebrating 20 years of being a thought leader for global trends in wireless technologies."



Chuck Sabin, Senior Director, Market Development, Bluetooth SIG

"The Bluetooth SIG congratulates Wireless Congress on its 20th anniversary. Over the past 20 years, the Bluetooth SIG and Wireless Congress have had a great relationship, informing and educating technology leaders on the roadmap for emerging use cases of Bluetooth technology. We look forward to continuing our relationship in the years to come."



Helmut Adamski, Chairman IP500 Alliance e.V.

"The IP500 Alliance e.V. congratulates the Wireless Congress for its 20th anniversary. We see the Wireless Congress as one of the worldwide influential communications platform for wireless connectivity! We also see the enormous value being part of a great network for technology-, business- and end-users!"

SUPPORTING PARTNERS 2023



















