



2022 IEEE Wireless Communications and Networking Conference

Boosting Verticals into Wireless Orbit

April 10-13, 2022 // Austin, USA

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Questions Regarding Technical Paper Submissions?

Technical-co-chair-WCNC-2022@ComSoc.org

Call for Papers

The IEEE Wireless Communications and Networking Conference (WCNC) is one of the premier annual events of IEEE in the wireless research arena bringing together researchers, academics, industry and government. WCNC 2022 will be held in the vibrant downtown of Austin, Texas, the capital of not only the Texas government, but also of culture and technology in the central United States, headquarters to companies such as National Instruments, Dell, Tesla, Oracle, and many others. WCNC 2022 will include technical sessions, tutorials, workshops, and technology and business panels. You are invited to submit papers, and proposals for panels, tutorials, and workshops, in all areas of wireless communications, networks, services, and applications. Information on how to submit proposals for panels, tutorials, and workshops can be found on the WCNC 2021 conference website. The submissions of technical papers should be made on EDAS in the following four tracks.

IMPORTANT DATES

Paper Submissions Deadline extended to:

15 October 2021

Notification of Acceptance:

1 December 2021

Camera-Ready Paper:

15 January 2022

For more information, visit:
wcnc2022.ieee-wcnc.org

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CALL FOR PAPERS - TOPICS

Track 1. Physical Layer and Communication Theory

Chair

Ayfer Ozgur, Stanford University, USA

Co-Chairs

Luca Sanguinetti, Pisa University, Italy

Xu (Judy) Zhu, University of Liverpool, UK

- Millimeter Wave and Terahertz
- Next Generation MIMO and Massive MIMO
- Short Packet and Finite Block Length Communications
- Energy Harvesting and Low Energy Communication
- Waveforms and Modulation
- Channel Modeling and Estimation
- Coding Theory
- Low Resolution Communication
- Relaying and Self-Backhauling
- Physical Layer Security
- Free Space Optical Communication
- Feedback and Two-Way Communication
- Information Theory and Channel Capacity
- Fundamentals of Age of Information
- Stochastic Geometry
- Iterative Techniques, Detection, and Decoding
- Wireless Power and Information Transfer
- Propagation and Interference Modeling
- Antennas and RF

Track 2. Networking and MAC

Chair

Dusit Niyato, Nanyang Technological University, Singapore

Co-Chairs

Dinh Thai Hoang, University of Technology Sydney, Australia

Nikolaos Pappas, Linköping University, Sweden

- Scheduling and Opportunism
- Resource Management
- URLLC, Time Sensitive and Deterministic Networking
- Network Slicing
- SDN/NFV
- Routing and Congestion Control
- Multihop Networks
- Multiple Access and Contention
- Cooperative Communication and Networking
- Cognitive Radio and Networking
- Spectrum Sensing, Access, and Sharing
- Wireless Network Security and Privacy
- Backscatter Communications
- Edge Computing, Edge Intelligence and Fog Networks
- Network Economics
- Energy-Efficient and Green Networking
- RAN Data Collection and Storage Enhancement
- Unlicensed Spectrum and Licensed/Unlicensed Inter-Networking
- Age and Value of Information for Networks
- Semantics of Information

Track 3. Machine Learning and Optimization for Wireless Systems

Chair

Deniz Gunduz, Imperial College London, UK

Co-Chairs

Marwa Chafii, ENSEA, France

Sheng Zhou, Tsinghua University, China

- Deep Learning for Wireless
- Reinforcement Learning for Wireless
- Distributed Learning for Wireless
- Unsupervised and Generative Models
- Communication-inspired Machine Learning (ML)
- End-to-end ML over Wireless Channels
- Scalability of ML for Wireless
- Performance Analysis of ML Techniques for Wireless
- Implementation of ML Algorithms for Wireless
- Cross Layer Optimization
- Data-driven Network Modelling and Optimization
- Networking Architectures for Artificial Intelligence
- Load Balancing and Cell/Band Association
- Bayesian Optimization for Wireless
- Convex and Non-Convex Optimization for Wireless
- Semantic and Goal-Oriented Communications
- Game Theoretic Approaches to Wireless
- Datasets for Wireless Systems and Channels

Track 4. Emerging Technologies, Standards, and Applications

Chair

Sofie Pollin, KU Leuven, Belgium

Co-Chairs

Yasaman Ghasempour, Princeton University, USA

David Lopez-Perez, Huawei Technologies, France

- Experiments, Prototypes and Testbeds
- Sensing and Localization
- Joint Radar and Communications
- Visible Light and Optical Communication
- Connected Vehicles
- UAVs and Non Terrestrial Networks
- Satellite and Deep Space Communications
- Intelligent Beamforming Relays
- Reconfigurable Intelligent Surfaces
- Molecular and Nano Communications
- IoT and Machine Type Communications
- Software Defined Radio and Networks
- 5G NR and 6G standardization
- O-RAN
- 802.11 and next generation Wi-Fi
- E-health and Mobile Health
- Blockchain and Cryptography
- Quantum Communications
- Innovative implanted and wearable devices
- Networking support for virtual and augmented reality
- Full-duplex communication networks