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 2023 will be held in Glasgow, home of four universities as well as the Scotland 5G Centre, stimulating the deployment of new wireless technologies across urban and rural areas and transforming society, economy and industry. WCNC 2023 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 2023 conference website. The submissions of technical papers should be made on EDAS in the following four tracks.

IMPORTANT DATES

Paper Submissions Deadline: 12 September 2022
Notification of Acceptance: 1 December 2022
Camera-Ready Paper: 15 January 2023

For more information visit: wcnc2023.ieee-wcnc.org
CALL FOR PAPERS - TOPICS

Track 1. Physical Layer and Communication Theory
Chair Marco Di Renzo, CNRS & Paris-Saclay University, France
Co-Chairs Daniel Benevides da Costa, Technology Innovation Institute, UAE
Gunes Karabulut Kurt, Polytechnique Montréal, Canada
Wasiu Popoola, The University of Edinburgh, UK
- Antennas and RF
- Channel Modeling and Estimation
- Coding Theory
- Energy Harvesting and Low Energy Communication
- Feedback and Two-Way Communication
- Free Space Optical Communication
- Fundamentals of Age of Information
- Holographic Surfaces and Reconfigurable Surfaces
- Information Theory and Channel Capacity
- Integrated Sensing and Communications
- Iterative Techniques, Detection, and Decoding
- Low Resolution Communication
- Millimeter Wave and Terahertz
- Next Generation MIMO and Massive MIMO
- Physical Layer Security
- Propagation and Interference Modeling
- Relaying and Self-Backhauling
- Short Packet and Finite Block Length Communications
- Stochastic Geometry
- Visible Light Communications
- Waveforms and Modulation
- Wireless Power and Information Transfer

Track 2. Networking and MAC
Chair Leila Musavian, University of Essex, UK
Co-Chairs Hina Tabassum, York University, Canada
Linglong Dai, Tsinghua University, China
Behrooz Makki, Ericsson, 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

Track 3. Machine Learning and Optimization for Wireless Systems
Chair Gang Feng, University of Electronic Science and Technology of China, China
Co-Chairs Salman Durrani, Australian National University, Australia
Mona Jaber, Queen Mary University of London, UK
Basak Guler, University of California, USA
- Deep Learning for Wireless
- Reinforcement Learning for Wireless
- Federated Learning and Distributed Learning for Wireless Networks
- Unsupervised, Semi-supervised Learning and Generative Models
- Communication-inspired Machine Learning (ML) for 6G
- End-to-end ML over Wireless Channels
- Scalability of ML for Wireless
- Performance Analysis of ML Techniques for Wireless
- Beam Management based on ML
- Data-driven Network Modelling and Optimization
- Networking Architectures for Artificial Intelligence
- AI Service Provisioning in Wireless Networks
- Intelligent Green Wireless Networking
- 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 Carlo Fischione, KTH Royal Institute of Technology, Sweden
Co-Chairs Richard Demo Souza, Federal University of Santa Catarina, Brazil
Sami Muhaidat, Khalifa University, UAE
Aryan Kaushik, University of Sussex, UK
- Experiments, Prototypes and Testbeds
- Sensing and Localization
- Joint Radar and Communications
- Visible Light and Optical Communication
- Connected Vehicles and Vehicle to Everything (V2X)
- UAVs and Non-Terrestrial Networks
- Satellite and Deep Space Communications
- Intelligent Beamforming Relays
- 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
- Backhaul/Fronthaul Networking & Communications
- Integrated Sensing, Computing and Communications