INNOVATION AND INTELLIGENT WIRELESS SYSTEMS

50th Wireless World Research Forum

Sangolquí, Ecuador.

Innovation in wireless systems is driven by the need for new wireless applications, such as 5G and beyond wireless networks, cognitive radio networks, Internet of Things (IoT), and wireless sensor networks. These applications require advanced wireless technologies to support high data rates, low latency, and high reliability. The development of new wireless technologies is also driven by the need for energy-efficient wireless systems that can reduce power consumption contributing to reduce the digital divide and extending the battery life of wireless devices.

Intelligent wireless systems rely on artificial intelligence and machine learning techniques to optimize wireless communication. Machine learning algorithms dynamically learn from acquired data and automatically adjust the wireless parameters to improve the system's performance. For example, machine learning algorithms can be used to optimize the wireless channel parameters, such as the transmit power and modulation scheme, to improve the wireless transmission and received signal quality.

Under the theme "Innovation and Intelligent Wireless Systems", the 50th Wireless World Research Forum (WWRF) will take place at Universidad de las Fuerzas Armadas - ESPE, Ecuador, from 22 – 24 August 2023. You are invited to be part of designing the wireless future by joining us for three days of insightful discussions, presentations, innovative brainstorming, and expert-level networking.

The topic of Innovation and Intelligent Wireless Systems focuses on the latest advances and trends in wireless communication technologies. With the growing demand for faster and more reliable wireless communication, researchers and practitioners are exploring new approaches to designing and optimizing wireless systems.

Topics of interest

Authors are invited to submit original manuscripts aligned with the theme of the event, on one or the more of the following topics, or on any relevant on INNOVATION AND INTELLIGENT WIRELESS SYSTEMS for a better world:

- Autonomous communications
- Towards automated wireless communications
- Resource sustainability in future communications
- Cutting Edge Solutions for Sustainable Communications
- Openness, Disaggregation, Modularity and Programmability
- Intelligent Applications for Vertical Industries
- Data Analytics, AI, and Machine Learning for Sustainability and Network Automation
- Software-Defined Infrastructure
- Advanced Radio Technologies
- Tactile Internet
- Green Communications and Networking
- THz Communications
- Bridging the Digital Divide Beyond 5G
- Beyond 5G Technologies
- Innovations in Business Models for Wireless Networks
- Cyber-Physical Systems and Networks
- Privacy and Security
- Connected Vehicles
- Holographic MIMO & Reconfigurable Intelligent Surfaces

- Applications and impact of quantum-based technologies
- Semantic Communications
- Spectrum Issues and Regulatory Principles
- Social Network-Aware Wireless
- Internet of Things and Wearable Technologies
- Quantum communications

Authors are expected to be physically present in Sangolquí-Ecuador to present their contribution.

Submission Instructions

Contributors should submit an extended abstract by 28th May 2023 to contributions@wwrf.ch for review. Extended abstracts should be preferably at least two pages in length, either in plain ASCII text, MS Word or Adobe PDF (Abstract-Template). A template for abstracts or papers is available at the link provided towards the end of this CFP. Full papers must be prepared using the WWRF template, which is also available below. The following list shows the different working groups (WGs) and Vertical Industry Platforms (VIPs) to one of which the contributions should be directed:

- Working Group,A/B - User Needs & Requirements, Services and Devices in a Wireless World
- Working Group C - New Directions in Communication Architectures and Technologies, including SDN, NFV and MEC
- Working Group D - Radio Communication Technologies: Air Interfaces for 6G, advance wireless access techniques, MIMO, Reconfigurable Intelligent Surfaces, Radio Resource Management, SDR and Spectrum Sharing
- WG BM - Future Business Models supported and enabled by 5G and Beyond wireless technologies
- WG High-Frequency Technologies: mm Wave and THz Communications and Sensing
- VIP WG 5G e/m-Health and Wearables
- VIP WG Connected Vehicles
- VIP WG Track-to-Train communications
- WG Cybersecurity
- WG 6G

Publication

Selected papers will be published in the newly-launched WWRF Magazine, Wireless World: Research and Trends.

Important Dates

Abstract Deadline:	28th May 2023
Notification of Acceptance:	7th June 2023
Early registration:	17th June 2023
Final paper and Copyright Licence Submission:	20th July 2023
Event:	22-24th August 2023

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Contributions submitted without a completed and signed copyright licence cannot be published in the meeting proceedings or in WWRF's other publications. Abstracts do not require a copyright licence.

STUDENT GRANTS

Funding is available to support a number of students travelling to and presenting papers at the meeting.
Application for student funding must be provided with paper submission. The level of grant will depend on available funds and the student's country of residence. Priority will be given to students from member organizations.

IMPORTANT DOCS

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