

Smart Wireless Systems for Collective Prosperity In a Green Future

53rd Wireless World Research Forum

BITS Pilani Hyderabad Campus, Hyderabad, India
18-20 February 2025



CALL FOR PAPERS

As we transition toward the next generation of wireless systems, the world is facing unprecedented challenges that demand innovative and holistic solutions. The explosive growth of wireless data, the need for hyper-connectivity, and the push towards more intelligent systems have brought us to a pivotal moment. Emerging technologies such as 6G, AI-driven networks, and ubiquitous IoT hold immense potential for advancing societies, but they must be developed with sustainability at the forefront. The global emphasis on reducing carbon emissions and achieving environmental sustainability necessitates a shift toward greener communication systems. Wireless networks of the future must not only deliver higher speeds and lower latency, but must do so in an energy-efficient and environmentally conscious manner. Furthermore, the future wireless ecosystem must prioritize inclusivity, ensuring that the benefits of advanced technologies are accessible to communities worldwide, contributing to an overall collective prosperity.

The 53rd Wireless World Research Forum (WWRF) conference will serve as a hub for researchers, innovators, and thought leaders to exchange ideas, present latest findings, and collaborate on solutions that will enable smart wireless systems to drive both technological advancement for new business opportunities and social well being. In this spirit, the forum aims to bridge the gap between the development of future networks and the urgent need for sustainable, secure, and equitable solutions.

With the conference theme, **'Smart Wireless Systems for Collective Prosperity in a Green Future,'** 53rd WWRF will explore how the convergence of 6G, AI, IoT, and green communications can meet the growing demands of our interconnected world, while addressing critical global challenges like climate change, resource scarcity, and digital inequality. Under this theme, the 53rd WWRF will take place at BITS Pilani Hyderabad Campus, in India, from **18-20 February 2025**. You are invited to be part of designing the wireless future by joining us for three days of insightful keynotes, talks, panel discussions, paper presentations, brainstorming, and expert-level networking. Topics of Interest include, but are not limited to:

- Green Wireless Networking
- Autonomous communications
- Resource sustainability in future communications
- Joint sensing and communication in Digital Health
- Distributed Learning in Edge Artificial Intelligence
- Standards: Current Roadmap and Future Progress
- 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
- Edge Computing and Intelligence
- Software-defined infrastructures
- Advanced radio technologies
- Non-Terrestrial Networks
- Tactile Internet
- THz communications
- 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 sharing, issues and regulatory principles
- Social network-aware wireless
- Internet of Things and wearable technologies
- Quantum communications
- Cybersecurity in 6G and Future Networks
- AI/ML for wireless communications and networking
- Intent Based Networking

Authors are expected to be physically present at the meeting to present their contributions.

SUBMISSION INSTRUCTIONS

Contributors should submit an extended abstract by 15 December 2025 for review. Extended abstracts should preferably be at least two pages in length, either in plain ASCII text, MS Word or Adobe PDF. A template for abstract and submissions details are available in WWR53 website (<https://www.bits-pilani.ac.in/wwr53>). The following list shows the different working groups (WGs) and Vertical Industry Platforms (VIPs) to one of which the contributions should be directed:

- WG A/B – User Needs & Requirements, Services and Devices in a Wireless World
- WG C – New Directions in Communication Architectures and Technologies, including SON, NFV and MEC
- WG 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 HF – High-Frequency Technologies: mm Wave and THz Communications and Sensing
- VIP WG Digital Health
- VIP WG Connected Vehicles
- VIP WG Track-to-Train communications
- WG Cybersecurity
- WG6G
- New NTN WG

PUBLICATION

Selected papers will be invited for a full paper submission in Springer as well as in the newly-launched WWR53 journal *Wireless World Research and Trends (WWR53)*.

IMPORTANT DATES

Abstract Deadline	20 th December 2024
Notification of Acceptance	15 th January 2025
Early registration	25 th January 2025
Final Abstract and Copyright Licence Submission	8 th February 2025
Event	18 th -20 th February 2025

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STUDENT GRANTS

Limited funding is available to support a number of students travelling and presenting papers at the meeting. Application for student funding must be provided with a paper submission. The level of the grant will depend on available funds and the student's country of residence. Priority will be given to students from WWR53 member organizations.