

31th IEEE International Conference on Telecommunications (ICT)

Budva, Montenegro

28—30 April 2025

Welcome to the 31st International Conference on Telecommunications (ICT), an event that has a long tradition of highlighting key advancements and pioneering research in the ever-evolving field of telecommunications. Established in 1991, this annual conference has become a renowned gathering place for a diverse community of global researchers, engineers, and stakeholders' representatives. ICT 2025 aims to continue the conference's long successful tradition of facilitating collaborations, discussions and knowledge exchange while revealing the latest trends and innovations in telecommunications. ICT 2025 papers will be published in IEEE Xplore and indexed in the high-quality Scopus database, ensuring wide accessibility and impact.

We invite submissions in all areas of telecommunication and electrical engineering research. Submissions are particularly encouraged close to the conference theme: **“Towards the era of hyperconnectivity and intelligence in telecommunications”**.

Special session: New trends in signal processing

Track 1: PHY & Fundamentals

- Compressive Sampling in signal processing for wireless communications
- Waveform, Modulation, and Coding Schemes
- Channel Estimation, Equalization, and Modelling
- MIMO, Massive MIMO, and Adaptive Antenna Systems
- Advanced Signal Detection, Interference Cancellation, and Beamforming
- Wireless Communication Technologies
- Propagation Models and Channel Characterization
- Spectrum Utilization, Cognitive Radio, and Dynamic Spectrum Sharing
- Ultra-wideband, Millimetre-wave, and Terahertz Communications
- Simultaneous Wireless Information and Power Transfer
- Reconfigurable Intelligent Surfaces
- Integrated Sensing and Communications
- Green Communications and Energy Efficiency
- Quantum Communications and Physical Layer Security
- Positioning, Navigation, and Location-based Services
- Free-space Optical and Underwater Communication Systems
- Satellite Communications and Space-based Networks
- Innovative Communication Paradigms
- Full-duplex, Self-interference Cancellation, and Backscatter Communications
- Molecular Communications
- Emerging Techniques for 6G and Beyond

Track 3: Intelligence for Communications

- AI-Driven Communication Systems and Technologies
- AI-Driven Communication Systems and Algorithms
- Machine Learning for Network Optimization
- Signal Processing in Telecommunications
- Cognitive and Autonomous Networking
- Intelligent Resource Allocation and Management
- Intelligent Sensor Networks and Antenna Technologies
- Intelligent Wireless Sensor Networks
- Smart Antennas, Beamforming, and AI-Driven Techniques
- Deep Learning for Signal Processing in Communications
- Context-Aware and Adaptive Communication Systems
- AI-Enhanced Security and Performance
- AI-Enhanced Security and Privacy
- Predictive Modelling for Network Performance
- AI-Enabled Quality of Service (QoS) Enhancement
- Self-Organizing and Self-Healing Networks
- Innovative AI Applications
- Generative AI for Communications
- Semantic Communications and Natural Language Processing
- Digital data protection in telecommunications
- Federated Learning and Reinforcement Learning in Communications
- Human-Centric Communication Design using AI
- Ethical Considerations and Future Applications
- Ethical Considerations in AI-Enabled Communication Systems
- AI-Driven Applications in 5G, 6G, and Beyond

Track 2: Networking and MAC

- Networking Architectures and Technologies
- Edge Computing, Fog Networking, and Fog Computing
- Ultra-dense Networks, Heterogeneous Deployments, and Ultra-Reliable Communications
- Cognitive and Intelligent Networking
- Network Slicing, Virtualization, and Resource Allocation
- Wireless and Mobile Networking
- MAC Protocols for Low-latency Communication
- Wireless and Mobile Networking
- Quality of Service (QoS) Provisioning and Network Performance Evaluation
- Cross-layer Design, Optimization, and Multiple Access Techniques
- Security, Privacy, and Emerging Paradigms
- Network Security and Privacy
- Blockchain for Networking
- IoT Networking, IoT Communication, and Machine-to-Machine Communication
- Software-defined Networking (SDN) and Network Virtualization
- Network Management, Monitoring, and Energy-efficient Networking
- Smart Grids Communications and Quality of Service (QoS) Provisioning
- Vehicular Networks and Mobility Management
- Novel Architectures and Protocols for 5G, 6G, and Beyond

Track 4: Experiment, Applications, and Business

- Technological Innovations and Applications
- Experiments, Prototyping, and Testbeds
- Antenna and RF System Design
- Visible Light and Optical Communication
- Unmanned Aerial Vehicle (UAV) Communications
- Emerging Technologies in Real-world Context
- Real-world Applications of Emerging Technologies
- IoT for Agriculture and Industry-specific Solutions
- Smart Cities and Urban Communication Infrastructure
- Sustainable and Green Communication Technologies
- Social and Business Aspects of Technology
- Business Models and Strategies
- Technology Adoption and Impact on Industries
- Telecommunication Policy, Regulation, and Societal Implications
- Educational and e-Learning Technologies
- Innovations in Industry and Healthcare
- Industry-specific Communication Solutions
- e-Health and Healthcare Applications
- Entertainment and Media Communication Innovations

Submissions

- **Firm FINAL** Paper Submission

Deadline: 28 January 14th February 28th February **14th March 2025!!!**

- Notification of Acceptance: 19th March 2025
- Early Registration: 4th April 2025
- Camera Ready Paper: 3rd April 2025

Conference founders

Prof. Hamid Aghvami, King's College London
Prof. Farokh Marvasti, Sharif University of Technology/King's College London

Prof. Izzat Darwazeh, University College London, Conference Advisor

Technical Committee

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Ass. Prof. Yansha Deng, King's College London, Technical Co-Chair
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