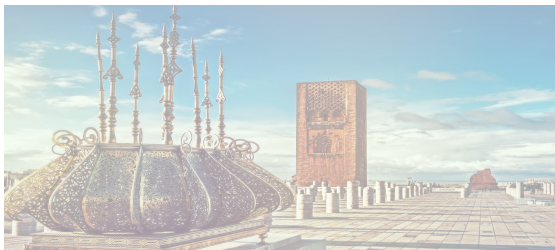# CommNet'24

The 7th International Conference on Advanced Communication Technologies and Networking
4-6 December 2024, Rabat, Morocco

CommNet'24

Technically co-Sponsored by IEEE ComSoc. IEEE Conference Record Number: #63022, ISBN: 979-8-3503-6702-7

The seventh International Conference on Advanced Communication technologies and Networking (CommNet 2024) aims to bring together leading academic scientists, scholars, engineers, and industrial researchers interested in advanced communication technologies and networking. Authors are invited to submit papers that contain original material which is not currently under review in any other conference or journal and has not been previously published. Accepted papers will be submitted for inclusion in the IEEE Xplore Digital Library. Potential research topics include, but are not limited to:

CALL FOR PAPERS

Track 1: PHY and Communication Theory

- Antennas and RF
- Channel Modeling and Estimation
- Coding Theory
- 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, MAC, and Security

- Scheduling and Opportunism
- Resource Management
- URLLC, Time Sensitive and Deterministic Networking
- Network Slicing
- SDN/NFV
- Routing and Congestion Control
- Multiple Access and Contention
- Cooperative Communication and Networking
- Cognitive Radio and Networking
- Spectrum Sensing, Access, and Sharing
- Wireless Network Security and Privacy
- Blockchain security
- Internet-of-Things (IoT) security and privacy
- Malware detection and damage recovery
- 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: Artificial Intelligence and Optimization for Wireless

- 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
- Generative AI
- Federated Learning for Wireless Communications

Track 4: Emerging Technologies, Standards, and Applications

- 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

Track 5: Green and Energy-Efficient Technologies

- Energy Harvesting and Low Energy Communication
- Wireless Power Transfer Techniques
- Transportation of Electrification
- Integration of Renewable Energy Resources
- Power System Modelling and Stability Analysis
- AI in Food and Agriculture
- Industry 4.0 Technologies
- Industrial Internet of Things
- AI for Sustainable Transportation
- Carbon-neutral communication and computing systems
- Big data to meet green challenges
- Collaborative Intelligence for Green Communication Systems
- Energy efficiency and scalability of communication networks and infrastructures
- Energy efficiency in 6G
- Energy footprint evaluation in networks and computing architectures
- Green optical wireless communications

Important Dates

Paper Submission: October 5th, 2024	**Paper Acceptance Notification:** November 13th, 2024
Camera-Ready Paper: November 22nd, 2024	**Early bird Registration:** November 23rd, 2024

Conference Days: December 4-6, 2024

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