Call for Papers

AI for Next Generation Networks and Services Workshop (AI-NGNS)

The 21st International Conference on Wireless Communications and Mobile Computing

Website: http://iwcmc.org/2025/

Submission Link: https://edas.info/newPaper.php?c=32919

May 12-16, 2025, Abu Dhabi, UAE

Chairs:

Abderrahmane Lakas, UAE University, UAE, alakas@uaeu.ac.ae

Carlos Tavares Calafate, Technical University of Valencia, Spain, calafate@disca.upv.es

Floriano De Rango, University of Calabria, Italy, derango@dimes.unical.it

Chaker Abdelaziz Kerrache, University of Laghouat, Algeria, kr.abdelaziz@gmail.com

Scope

The integration of Artificial Intelligence (AI) and machine learning (ML) is increasingly pivotal in future mobile networks and communication systems, particularly in the context of B5G/6G communication systems. The conceptualization of AI-enabled networks is gaining momentum as novel use cases emerge, notably in domains such as the metaverse, autonomous systems, the Internet of Things (IoT), and user-centric applications. Emerging AI methods such as Federated Learning (FL), Reinforcement Learning (RL), large language models (LLM), Explainable AI (XAI), etc. are set to play a transformative role in the network functions of future B5G/6G networks, enhancing their efficiency, adaptability, and overall performance. Examples of future network functions that will benefit from AI include Network Optimization, Self-Organizing Networks (SON), Predictive Maintenance, Enhanced Security, Intelligent Edge Computing, Network Slicing, and User Experience Personalization. In this workshop, experts from academia and industry sectors will explore the opportunities presented by the latest advances in this field and discuss the challenges that arise from integrating AI into the design and operations of next-generation networks and communication systems.

Topics

Accepted papers will be published in the IEEE IWCMC 2025 proceedings and will be submitted to the IEEE digital library (IEEE Xplore). Authors are welcome to submit original papers (not published before and/or simultaneously to another venue) with topics that include but are not limited to:

- AI/ML-based optimization techniques for mobile networks
- GenAI for network use cases
- Native AI for personalized service generation
- On-Devise Edge LLM , Distributed AI at the Edge, Quantized Edge Inference
- Network Software Infrastructure & MLOps
- AI-assisted privacy-preserving, network security, privacy, and trust management
- Predictive analytics using AI techniques.
- AI models for resource management and network performance
- AI models for traffic engineering, network planning, and capacity optimization
- AI-empowered 6G massive radio access, spectrum management, and beamforming

Submitted papers are encouraged to address novel technical challenges or industrial and standard aspects of the

key technologies for sustainable and secure cognitive buildings/cities.

Important Dates

Deadlines will follow the main conference announced dates.

<u>Note</u>: Within this workshop, there will be one Best Paper Award.