

Special Session 1

Wireless Big Data and AI for Intelligent Communications and Networks

2026 IEEE 9th World Conference on Computing and Communication Technologies (WCCCT) will be held in Qingdao, China during April 10-12, 2026, sponsored by Ocean University of China, co-sponsored by IEEE Qingdao AP/MTT/COM Joint Chapter. Patrons are Qingdao University of Technology, Shandong Normal University, Shenzhen University, Sichuan Normal University, Xihua University, Warsaw University of Technology, Guangzhou Institute of Science and Technology, Gannan Normal University, University of Haute Alsace, Okayama University, Qinghai Institute of Technology, and Key Laboratory of Wireless Sensor Network in University of Sichuan Province, Sichuan Normal University.

This special session focuses on cutting-edge advances at the intersection of wireless big data analysis, artificial intelligence, and intelligent communications. With the explosive growth of network-scale data, new methodologies are required to achieve accurate prediction, efficient resource management, and intelligent decision-making. The session invites contributions in areas such as spatiotemporal traffic analysis, machine learning for wireless systems, network digital twins, large language models (LLMs) for communication networks, federated learning, semantic communications, and AI-native 6G architectures. By bringing together researchers and practitioners, this session aims to foster dialogue on how AI, ranging from deep learning to foundation models, can reshape next-generation wireless networks toward enhanced efficiency, scalability, and intelligence.

Wireless big data analytics and spatiotemporal modeling

Topics of Interest (include but are not limited to):

- Machine learning and deep learning for wireless networks
- Large language models (LLMs) for network management and optimization
- AI-native 6G architectures and intelligent communication systems
- Semantic communications and AI-driven protocol design
- Federated learning and distributed AI for networks
- Network digital twins and data-driven simulation platforms
- Resource allocation, scheduling, and energy-efficient network control
- Traffic prediction and anomaly detection in communication networks
- Cross-domain and multimodal data fusion for wireless systems
- Edge intelligence and cloud-edge-device collaboration
- Security, privacy, and trust in AI-powered communication systems
- Applications of AI in IoT, vehicular networks, and industrial Internet

Please choose Special Session 1 to submit. **Submission Link:**

<https://www.zmeeting.org/submission/wccct2026>

More details about Special Session 1, Please view: https://wccct.org/ss_1.html

Special Session 1 Chair



Assoc. Prof. Chuanting Zhang, Shandong
University, China

Research Areas: Wireless Traffic Prediction,
Federated Learning, Intelligent Communications

Publication

Submitted manuscripts will be peer reviewed by the conference scientific committees. Accepted and presented papers will be included in **Conference Proceedings**.

Publication History

WCCCT2025 | ISBN: 979-8-3315-1261-3 | [IEEE Xplore](#) |

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