

CALL FOR PAPERS SPECIAL SESSION ON

Smart Mobility and Intelligent Transportation: AI, Vision, and Edge Computing for ICCAD 2026

July 7-9, 2026, Lisbon, Portugal

Session Co-Chairs:

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Session description:

This special session addresses the challenge of designing and implementing Intelligent Transportation Systems (ITS) that meet the growing demand for safer, more efficient, and sustainable mobility across multiple modes—road, rail, maritime, and air transport.

The rapid evolution of technologies such as Artificial Intelligence (AI), computer vision, and edge computing is creating unprecedented opportunities to optimize transportation networks, enhance safety, reduce congestion, and minimize environmental impact. At the same time, these innovations raise critical concerns around cybersecurity, data privacy, and ethical AI deployment.

The goal of this session is to foster a deeper understanding of how cutting-edge AI techniques—including deep learning, generative AI, and machine learning—can be applied to ITS to improve human safety, optimize traffic flows, and enable inclusive, environmentally sustainable urban mobility. By integrating smart infrastructures, connected vehicles, IoT, and real-time edge analytics, this session aims to explore the future of transportation systems that are both intelligent and human-centered.

The topics of interest include, but are not limited to:

- AI-Driven Urban Mobility Solutions
- Autonomous and Connected Vehicles
- Computer Vision and Embedded Systems for Real-Time Traffic Monitoring
- Edge AI for Traffic Optimization and Predictive Analytics
- Generative AI for Predictive Safety and Emergency Response
- Cybersecurity and Privacy in Al-Powered Transportation Systems
- Al in Rail and Maritime Transport Optimization
- Data-Driven Traffic and Mobility Management
- Smart Infrastructure and Road Safety Innovations
- Sustainability and Decarbonization in ITS
- Human-Centric and Inclusive Mobility Systems
- AI-Powered Traffic Signal Optimization

- Predictive Maintenance using Deep Learning
- Multi-Modal Transport Coordination using Al
- Ethical AI and Data Governance in Smart Cities
- Urban and Advanced Air Mobility
- Machine Learning and Al-Powered Applications for Air Traffic Management

SUBMISSION

Papers must be submitted electronically for peer review by: January 31, 2026 https://www.iccad-conf.com/submission/

All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).