## CALL FOR PAPERS SPECIAL SESSION ON

**New trends of Intelligent Transportation Systems** 

for ICCAD 2025

July 1-3, 2025, Barcelona, Spain

## **Session Co-Chairs:**

- Mehrez Abdellaoui, University of Sousse, Tunisia, mehrez.abdellaoui@eniso.u-sousse.tn
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## **Session description:**

This special session deals with the problem of designing and implementing Intelligent Transportation Systems (ITS) that address the growing need for safer, more efficient, and sustainable transportation solutions across various modes, such as road, rail, maritime, and air transport. The rapid advancement of technologies like Artificial Intelligence (AI), computer vision, and embedded systems has created new opportunities to optimize transportation networks, enhance safety, reduce congestion, and mitigate environmental impact. However, these innovations also raise critical questions around cybersecurity, data privacy, and ethical AI deployment.

The goal 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 in ways that improve human safety, optimize traffic flows, and enable more inclusive, environmentally sustainable urban mobility. By integrating smart infrastructures, connected vehicles, and real-time data analysis, 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:

- Al-Driven Urban Mobility Solutions
- Autonomous and Connected Vehicles
- Computer Vision and Embedded Systems for Real-Time Traffic Monitoring
- Airport and Aviation Management using AI and Deep Learning
- 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, 2025 <a href="https://www.iccad-conf.com/submission/">https://www.iccad-conf.com/submission/</a>

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).