

# IEEE COINS 2023

## IEEE International Conference on Omni-layer Intelligent Systems

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Berlin, Germany | Hybrid  
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Papers

### Track: Intelligent Transportation

Modern society faces serious problems with transportation systems such as traffic congestion, safety, and pollution. The computing and communication revolution experienced during last decades is having a large impact on surface transportation. Growing application of Information Technologies in transportation lead to Intelligent Transportation Systems (ITS). Automotive manufacturers are integrating in-vehicle sensors, functions and actuators with new applications in different areas including safety, traffic management, and infotainment. Autonomous vehicles are becoming commonplace. Aerial Autonomous Vehicles are opening new business opportunities and models. Government institutions are implementing roadside infrastructures such as cameras and sensors to collect data about environmental and traffic conditions. By seamlessly integrating vehicles and sensing devices, their sensing and communication capabilities can be leveraged to achieve smart and intelligent transportation systems. In this track, last advances in intelligent transportation systems will be selected and discussed.

Topics of interest include, but are not limited to:

- Intelligent Transportation Systems: ITS Modeling, Development and Deployment, ITS Automation, ITS Cybersecurity, ITS safety and privacy, Artificial Intelligence in Transportation Systems, Cooperative Transportation Systems, Cyber-Physical-Social systems for ITS, Vision and environment perception, Safety and security assessment, Detection of security threats and vulnerabilities, Safe human-machine interaction in automated decision-making systems, Agile engineering methods for cyber-physical systems
- Transportation systems modelling, analysis and design: System architecture and software design for efficient, safe, green and autonomous vehicles, Hardware and software solutions for run-time system management, power management, diagnostics and self-adaptation, New simulation technologies for transportation systems, mathematical models, human-in-the-loop modeling, traffic management, driver steering behavior, Safety in AI-based system architectures
- Mobility-as-a-Service (MaaS): mobility services, unified trip management gateway, autonomous, connected, electric and shared vehicles, fully automated systems, Neural Networks, Machine and Deep Learning for transportation applications
- Unmanned Aerial Vehicles (UAVs): UAV-based services, UAV application modeling, simulation and deployment, Hardware and software design for drone systems, Technologies to increase drone safety and autonomy, including technologies for UAV communication, Drone systems' modeling, simulation, code generation, verification, and validation
- Applications: Industry (manufacturing, logistics, maintenance, inspection, etc.) and healthcare (service, manipulation, assistance, monitoring, etc.)