



CALL FOR PAPERS - SPECIAL SESSION
**“Advances in Urban Traffic Control:
Theory and Practice”**
for **CODIT 2024**
July 01-04, 2023 - Valletta, Malta

Session Co-Chairs:

Prof. Elena Sofronova, Federal Research Center «Computer Science and Control» of the Russian Academy of Sciences, Russia - (email: [e.a.sofronova\(at\)gmail.com](mailto:e.a.sofronova@gmail.com))

Session description:

This special session deals with the problem of traffic control and optimization in urban areas. It has been an active research topic for decades, but we still need less traffic congestion, less costs, less emission, more comfort, more safety and reliability. Recently new hybrid modeling paradigms emerged, new traffic optimal control approaches have been developed, and autonomous vehicles have become a part of the «community». Growing amount of data is to be fed in AI tools to simulate and optimize traffic flows. Various impacts of traffic control and management are difficult to be quantified. The effect of implementation of new tricks should be properly assessed. Thoroughly developed theory behind high-performance software are the key to success. This special session is aimed to cover some advances in traffic control both in theory and in practice and to preview the next steps on the way.

The goal of the special session is to deliver innovative research ideas and application results in the area of urban traffic control and optimization and to learn the state of the art development and progress on ITS research and applications.

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

- Control (Traffic-Vehicle-Driver/AV)
- Control Strategies
- Optimization Tools
- New Mathematical Models
- Algorithms and Architectures
- Heterogeneous Big Data

- Reliability and Safety Issues
- High Performance Computing in Simulation and Optimization
- Reinforcement Learning - Based Traffic Control
- Simulation and Optimization of Large Transportation Networks
- Field Trials and Validation
- Performance Assessment
- Modern Cities: What If not Traffic Lights

SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **February 03, 2024**:

<http://controls.paperccept.net/conferences/scripts/start.pl>. In PaperCept, click on the **CoDIT 2024** link “Submit a Contribution to CoDIT 2024” and follow the steps.

IMPORTANT: 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).

DEADLINES

February 03, 2024: deadline for paper submission

April 14, 2024: notification of acceptance/reject

May 10, 2024: deadline for final paper and registration