



IEEE Open Journal of Intelligent Transportation Systems
Editor in Chief (Prof Dr Bart van Arem)

Special Issue on: “Traffic Modelling and Control for Smart, Safe and Green
Mobility”

Scope

Congestion, pollution and road accidents are just some of the phenomena that daily deteriorate the environment and the quality of life of citizens all over the world. In this context, a move towards sustainable mobility becomes more and more pressing, requiring the adoption of innovative strategies that allow, on the one hand, to meet the mobility needs of users and, on the other hand, to limit inefficiencies by reducing travel time and the negative impact on the environment, health and wellbeing of citizens.

In recent years, significant technological advances have led to increasingly efficient and reliable communication, data collection and transmission systems. Simultaneously, there has been a massive interest in the development of increasingly sophisticated vehicles with automated and semi-automated driving capabilities. These technological tools pave the way for new modelling and control approaches that can be applied to represent viable new technology solutions to these challenges.

This special issue aims to gather the most innovative approaches in the field of modelling and control of vehicular traffic, on both urban and freeway, whose objective is to improve its efficiency, reduce its negative impact on the environment, increase the safety of road users and livability for citizens.

Contributions for consideration in the Special Issue will include a paper proposed by **Prof. Kara M. Kockelman** (The University of Texas at Austin) titled “Energy implications of self-driving vehicles”.

The scientific areas include but are not limited to:

- Modelling and control of road traffic networks
- Urban mobility systems
- Control of connected and automated vehicles
- Smart Mobility
- Safety and security in transportation systems
- Technologies for control in transportation systems
- Planning and control problems in freight transportation networks
- Advanced and automated public transportation
- Human factors in the interaction of AVs with pedestrian/bicycles

Time line: Submission from November 1 2020 to April 30 2021. Accepted papers will be published upon acceptance as early access.

Paper Submission Link: <https://mc.manuscriptcentral.com/oj-its> (choose manuscript type TMSSG)

Guest editors:

Margarida Coelho	University of Aveiro	Portugal
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Margarida Coelho (margarida.coelho@ua.pt) finished her PhD at Instituto Superior Técnico (IST) - Technical University of Lisbon, Portugal, in 2005. She is an Assistant Professor at the Department of Mechanical Engineering of the University of Aveiro, Portugal, and the Scientific Coordinator of the research on Transportation at the Centre for Mechanical Technology and Automation, where she also serves as Vice-Director. Her research interests are: impacts of transportation systems, intelligent mobility, life cycle assessment and active mobility.

Cecilia Pasquale (cecilia.pasquale@edu.unige.it) received the bachelor degree in Civil Engineering in 2009 from the Polytechnic University of Torino, Italy, the Master degree in Transports and Logistics Engineering and the Ph.D. degree in Monitoring of Systems and Environmental Risk Management from the University of Genova, Italy, in 2012 and 2016, respectively. Currently she is a Research Fellow at the University of Genova. Her research interests include modelling, optimization, and control methods applied to the field of transportation systems. She is member of the IFAC Technical Committees TC 7.4 on Transportation systems.

Claudio Roncoli (claudio.roncoli@aalto.fi) is Assistant Professor of Transportation Engineering at Aalto University, Finland. He completed his PhD degree in System monitoring and environmental risk management (2013) at University of Genova, Italy. Before joining Aalto University, he was a research assistant at University of Genova, Italy (2007-2013), a visiting research assistant at Imperial College London, UK (2011-2012), and a Postdoctoral Research Associate at Technical University of Crete, Greece (2013-2016). His research interests include real-time traffic management; modelling, optimisation, and control of traffic systems with connected and automated vehicles, as well as smart mobility and intelligent transportation systems.

Marianne Vanderschuren (marianne.vanderschuren@uct.ac.za) has a BSc Eng (NHTV, Tilburg, NL), an MSc Eng (University of Delft, NL) and a PhD (University of Twente, NL). After working for TNO-Inro (Delft, NL) for over ten years as a senior researcher, she joined the University of Cape Town. Professor Vanderschuren is an academic in the Centre for Transport Studies and a Deputy Dean in the Faculty of Engineering and the Built Environment. Her work puts major emphasis on transport improvements for vulnerable road users, transport equity and sustainability, through the application of transport modelling and project assessment tools.