

# 1<sup>st</sup> Symposium on “Management of Future motorway and urban Traffic Systems”



Chania, Greece – June 2-3, 2016

## Symposium Program

### Day 1 - Thursday, June 2, 2016

9:00	Registration
9:30	South room - Keynote speech 1: Hai Yang
10:30	Coffee break
11:00	Parallel sessions South room - Motorway traffic management with connected/automated vehicles (1) North room - Urban traffic management with conventional vehicles
12:40	Lunch break
14:10	Parallel sessions South room - Motorway traffic management with connected/automated vehicles (2) North room - Urban traffic management with connected/automated vehicles
15:50	Coffee break
16:20	Parallel sessions South room - Network traffic management (1) North room - Motorway traffic management with conventional vehicles (1)
18:00	End of Day 1
20:30	Symposium dinner

### Day 2 - Friday, June 3, 2016

9:00	Registration
9:30	South room - Keynote speech 2: Petros Ioannou
10:30	Coffee break
11:00	Parallel sessions South room - Network traffic management (2) North room - Urban and network traffic management with connected/automated vehicles
12:40	Lunch break
14:10	Parallel sessions South room - Public and sharing-based transportation systems North room - Motorway traffic management with conventional vehicles (2)
16:15	Coffee break
16:45	Parallel sessions South room - Modelling and management of future traffic systems North room - Motorway traffic management with conventional vehicles (3)
18:00	Final thanks
18:05	End of the Symposium

## Day 1 Sessions

### Keynote speech 1

Chairman: Markos Papageorgiou

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<b>Hai Yang</b> <i>The Hong Kong University of Science and Technology, China</i>	Managing Network Mobility with Tradable Travel Credits
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### Motorway traffic management with connected/automated vehicles (1)

Chairman: Peter Wagner

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<b>Alexander Skabardonis</b> <i>University of California Berkeley, USA</i>	Control strategies for corridor management
<b>Jack Haddad</b> <i>Israel Institute of Technology, Israel</i>	Vehicle platoon formation using interpolating control: A laboratory experimental analysis
<b>Felix Rempe</b> <i>BMW – UBM, Germany</i>	A comparison of traffic estimation algorithms based on floating car data
<b>Claudio Roncoli</b> <i>Technical University of Crete, Greece</i>	Optimal lane-changing control at motorway bottlenecks

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### Urban traffic management with conventional vehicles

Chairman: Anastasios Kouvelas

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<b>Andy Chow</b> <i>University College London, UK</i>	Distributed control systems for urban traffic management
<b>Giovanni De Nunzio</b> <i>IFPEN, France</i>	Speed advisory and signal offsets control for arterial bandwidth maximization and energy consumption reduction
<b>Baohua Mao</b> <i>Beijing Jiaotong University, China</i>	The development of traffic control at signalized intersections in Beijing, China
<b>Anastasios Kouvelas</b> <i>EPFL, Switzerland</i>	High-level perimeter flow control for megacities in presence of uncertainties: three recent approaches

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### Motorway traffic management with connected/automated vehicles (2)

Chairman: Claudio Roncoli

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<b>Apostolos Kotsialos</b> <i>Durham University, UK</i>	Hierarchical motorway traffic control: adding a new layer
<b>Julien Monteil</b> <i>Trinity College Dublin, Ireland</i>	Driver-assisted vehicles as actuators to increase traffic flow safety and efficiency
<b>Peter Wagner</b> <i>DLR, Germany</i>	Autonomous vehicles and capacity of freeways
<b>Tomer Toledo</b> <i>Israel Institute of Technology, Israel</i>	Modeling needs for micro-simulation of future driving

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## Urban traffic management with connected/automated vehicles

Chairman: Meng Wang

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<b>Rodrigo Castelan Carlson</b> <i>Universidade Federal de Santa Catarina, Brazil</i>	Mixed-integer linear programming modeling for the control of automated vehicles through intersections
<b>Konstantinos Ampountolas</b> <i>University of Glasgow, UK</i>	Decentralised urban traffic signal control in a connected/autonomous vehicle environment
<b>Felipe Augusto de Souza</b> <i>University of California Irvine, USA</i>	Optimal urban traffic signal control and route guidance based on the store-and-forward model
<b>Meng Wang</b> <i>TU Delft, the Netherlands</i>	Velocity coordination for cooperative vehicles at junctions

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## Network traffic management (1)

Chairman: Carolina Osorio

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<b>Marios Polycarpou</b> <i>University of Cyprus, Cyprus</i>	Congestion-free vehicle routing using road-link reservations
<b>Mehmet Yildirimoglu</b> <i>EPFL, Switzerland</i>	Aggregated traffic modeling and assignment in large-scale networks
<b>Nadir Farhi</b> <i>IFSTTAR, France</i>	Upper bounds for the travel time in road networks
<b>Carolina Osorio</b> <i>MIT, USA</i>	Efficient large-scale traffic management with inefficient traffic models

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## Motorway traffic management with conventional vehicles (1)

Chairman: Yibing Wang

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<b>Francesc Soriguera</b> <i>Technical University of Catalunya, Spain</i>	Effects of low speed limits on motorway traffic: Some empirical findings
<b>Hillel Bar-Gera</b> <i>Ben-Gurion University, Israel</i>	High-Occupancy-Toll: potential benefits and modelling challenges
<b>Dimitris Chryssagis</b> <i>IBI Group, Greece</i>	Integrated Traffic and Facility Motorway Management – the Greek evolution
<b>Yibing Wang</b> <i>Zhejiang University, China</i>	Off-ramp blockage on freeways

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## Day 2 Sessions

### Keynote speech 2

Chairman: Carlos Canudas de Wit

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<b>Petros Ioannou</b> <i>University of Southern California, USA</i>	Combined Lane Change and Variable Speed Control: Analysis and Simulations
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### Network traffic management (2)

Chairman: Francesco Viti

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<b>Carlos Canudas-de-Wit</b> <i>CNRS, France</i>	Using the averaged link transmission model for efficient control design of large-scale urban networks
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<b>Marco Rinaldi</b> <i>University of Luxembourg, Luxembourg</i>	Decomposing the anticipatory network traffic control problem
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<b>Chris Manzie</b> <i>University of Melbourne, Australia</i>	Decentralised extremum seeking in urban traffic network controllers
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<b>Biagio Ciuffo</b> <i>European Commission JRC, Italy</i>	The quest for an optimized road transportation system through autonomous vehicles
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### Urban and network traffic management with connected/automated vehicles

Chairman: Eleni Christofa

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<b>Stefano Carrese</b> <i>Universita degli Studi Roma Tre, Italy</i>	Dynamic demand estimation and prediction for traffic urban networks
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<b>Bernhard Friedrich</b> <i>TU Braunschweig, Germany</i>	Traffic light assistance based on low frequency FCD
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<b>Ketan Savla</b> <i>University of Southern California, USA</i>	Throughput analysis of a horizontal traffic queue
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<b>Eleni Christofa</b> <i>University of Massachusetts Amherst, USA</i>	Reliability of transit vehicle arrival prediction using connected vehicle data
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### Public and sharing-based transportation systems

Chairman: Samitha Samaranyake

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<b>Yasuo Asakura</b> <i>Tokyo Institute of Technology, Japan</i>	Sharing based transport systems for given activity pattern
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<b>Klaus Bogenberger</b> <i>Universität der Bundeswehr München, Germany</i>	Shared autonomous electric vehicle systems: Relocation, charging and maintenance
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<b>Marcin Sereczynski</b> <i>Luxembourg Institute of Science and Technology, Luxembourg</i>	Towards efficient prioritisation of public transport vehicles through cooperative ITS technology
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<b>Neila Bhouri</b> <i>IFSTTAR, France</i>	Bimodal traffic control: Public transport and private vehicles
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<b>Samitha Samaranyake</b> <i>Cornell University, USA</i>	Ridesharing in a mobility-on-demand system
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## Motorway traffic management with conventional vehicles (2)

Chairman: Ioannis Papamichail

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<b>Alfréd Csikós</b> <i>Chalmers University of Technology, Sweden</i>	Switching CTM for mode dependent travel delay minimisation
<b>Silvia Siri</b> <i>University of Genova, Italy</i>	Two-class freeway traffic control for reducing congestion and emissions: a computational analysis
<b>Simona Sacone</b> <i>University of Genova, Italy</i>	A two-class traffic control scheme for reducing congestion, decreasing emissions and improving safety in freeway systems
<b>Maria Kontorinaki</b> <i>Technical University of Crete, Greece</i>	Applications of nonlinear adaptive control to local and coordinated ramp metering

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## Modelling and management of future traffic systems

Chairman: Anargiros Delis

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<b>Anargiros Delis</b> <i>Technical University of Crete, Greece</i>	On macroscopic modelling of ACC/CACC traffic flows
<b>Gaetano Fusco</b> <i>Università di Roma La Sapienza, Italy</i>	Big data oriented models for Intelligent Transport Systems
<b>Ioannis Ntousakis</b> <i>Technical University of Crete, Greece</i>	Using motion planning techniques as a means to improve traffic flow

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## Motorway traffic management with conventional vehicles (3)

Chairman: Silvia Siri

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<b>Azita Dabiri</b> <i>Chalmers University of Technology, Sweden</i>	Coordinated risk-aware ramp metering
<b>Ioannis Papamichail</b> <i>Technical University of Crete, Greece</i>	Feedback-based integrated motorway traffic flow control
<b>Marius Schmitt</b> <i>ETH Zurich, Switzerland</i>	Stability results for a monotonic ramp metering controller

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