June, 5 Conference Program

8:00-9:00 Registration

9:00-9:30 Inauguration **D.1.7**

	D.1.7 Traffic Assignment chair: Giulio Cantarella	**D.1.1** ITS in Public Transport - models, data and analyses for Transit I chair: Arkadiusz Drabicki	**D.0.1** ITS Technology chair: Andrzej Czyżewski
09:30-10:50			
09:30-09:50	Stochastic Multi-Vehicle Assignment To Urban Transportation Networks *Giulio Erberto Cantarella* *University of Salerno, DICIV*	Calibrating Route Choice Sets for an Urban Public Transport Network using Smart Card Data Sanmay Shelat *Delft University of Technology*	Development of Intelligent Road Signs with V2X Interface for Adaptive Traffic Controlling *Andrzej Czyżewski* *Politechnika Gdańska, Wydział ETI*
09:50-10:10	Spatio-temporal Correlations of Betweenness Centrality and Traffic Metrics *Elise Henry* *LICIT (IFSTTAR-ENTPE)*	A real time hybrid controller for regulating bus operations and reducing stops at signals *Georgios Laskaris* *University of Luxembourg*	Communication system for Intelligent Road Signs network *Janusz Gozdecki* *Akademia Górniczo-Hutnicza*
10:10-10:30	The electric analogue model for analysis and optimization of traffic flows operation in cities *Victor Danchuk* *National Transport University / Department of Electronics and Computer Science*	Analysis and Prediction of Disruptions in Metro Networks Menno Yap *Delft University of Technology, department of Transport and Planning*	Improved OpenLR decoding using a stepwise increased deviation range *Gertjan Francke* *Technolution B.V.*
10:30-10:50	Route Set Generation for Quick Scan Applications of Dynamic Traffic Assignment *Henk Taale* *Delft University of Technology*	Data-Driven Bus Crowding Prediction Based on Real-Time Passenger Counts and Vehicle Locations *Erik Jenelius* *KTH Royal Institute of Technology, Division of Transport Planning*	Comparative study on the effectiveness of various types of road traffic intensity detectors *Andrzej Czyżewski* *Gdansk University of Technology*

11:00-11:30 Coffee break

	D.1.7 Route Choice chair: Mike Hewitt	**D.1.1** Mobility-as-a-Service I chair: Dr. Niels van Oort	**D.0.1** Traffic Safety - models, data and management I chair: Xiaoduan Sun
11:30-12:50			
11:30-11:50	A Bayesian methodology for route choice inference based on Bluetooth data *Sebastian Raveau* *Pontificia Universidad Católica de Chile*	Supply characteristics and membership choice in round-trip and free-floating carsharing systems *Carolina Cisterna* *Roma Tre University*	Accident Lane Prediction Using Probabilistic Inference *Ilgin Gokasar* *Bogazici University*
11:50-12:10	Modelling of Emergency Vehicles' Route Choice with Use of Trajectory Data *Laura Bieker-Walz* *German Aerospace Center (DLR)*	Impact of service quality factors on ride sharing in urban areas *Aledia Bilali*	Collecting data on Risk Perceptions and Observed Risk in Smart Cities *Giuseppina Pappalardo* *University of Catania*
12:10-12:30	Big Data fusion and parametrization for strategic transport demand models *Luuk Brederode* *DAT.Mobility*	A two-stage Metaheuristic approach for solving the Vehicle Routing Problem with Simultaneous Pickup/Delivery and Door-to-Door service *Mario Marinelli* *Polytechnic University of Bari*	Fuzzy surrogate safety metrics *Konstantinos Mattas* *Democritus University of Thrace*
12:30-12:50	Deriving on-trip route choices of truck drivers by utilizing Bluetooth data, loop detector data and variable message sign data *Salil Sharma* *TU Delft*	Does ride-sourcing absorb the demand for car and public transport in Amsterdam? *Jishnu Narayan* *TU Delft*	Safety Analysis of RCUT Intersection *Xiaoduan Sun* *University of Louisiana*

13:00-14:00 Lunch

13:00-14:00 Lunch

| 14:00- 15:00	Keynote speech: **SHORT TERM PREDICTION OF PASSENGER FLOWS ON TRANSIT NETWORKS AIMED AT REAL-TIME MANAGEMENT**
D.1.7	Guido Gentile *Sapienza University of Rome*

15:00-15:30 Coffee break

	D.1.7	**D.1.1**	**D.0.1**
	Forecasting and predicting chair: Josep Perarnau *Stream sponsor: AIMSUN* aimsun. A Siemens Company	**Demand modelling I** chair: Klaas Friso	**Traffic Safety - models, data and management I** chair: Carmelo D'Agostino
15:30- 15:50	Towards Designing Pre-trip Traveler Information Systems: A Quantitative Evaluation *Dorothee Wittek* *BMW AG*	Analysis of Urban Traffic Network Vulnerability and Classification of Signalized Intersections *Georgios Sarlas* *ETH Zurich*	Methodology of research on the impact of ramp metering on the safety and efficiency of road traffic using transport models *Jacek Oskarbski* *Gdansk University of Technology*
15:50- 16:10	On the substitutability of traffic light and pricing controllers in transportation networks *Xavier Mazur* *University of Luxembourg*	Integrating ridesharing services with automated vehicles into macroscopic travel demand models *Emely Richter* *University of Stuttgart*	New Insights into Road Accident Analysis through the Use of Text Mining Methods *Sabine Krause* *Technical University Munich*
16:10- 16:30	Adaptable Anomaly Detection in Traffic Flow Time Series *Md Rakibul Alam* *Technical University Munich*	Investigating the Influence of On-Street Parking Guidance Strategies on Urban Mobility *Sergio Di Martino* *Università degli Studi di Napoli Federico II*	Impact of autonomous vehicles on road safety at pedestrian crossings *Nina Kozaczka* *Cracow University of Technology*
16:30- 16:50	Calibration Procedure for Traffic Flow Models of Merge Bottlenecks *Felipe de Souza* *Argonne National Laboratory*	Advances by using Mobile Phone Data in mobility analysis in the Netherlands *Klaas Friso* *DAT.Mobility*	Safety evaluation of turbo roundabout with and without internal traffic separations considering autonomous vehicles operation *Carmelo D'Agostino* *Lund University*

19:00 Welcome Reception Barbakan
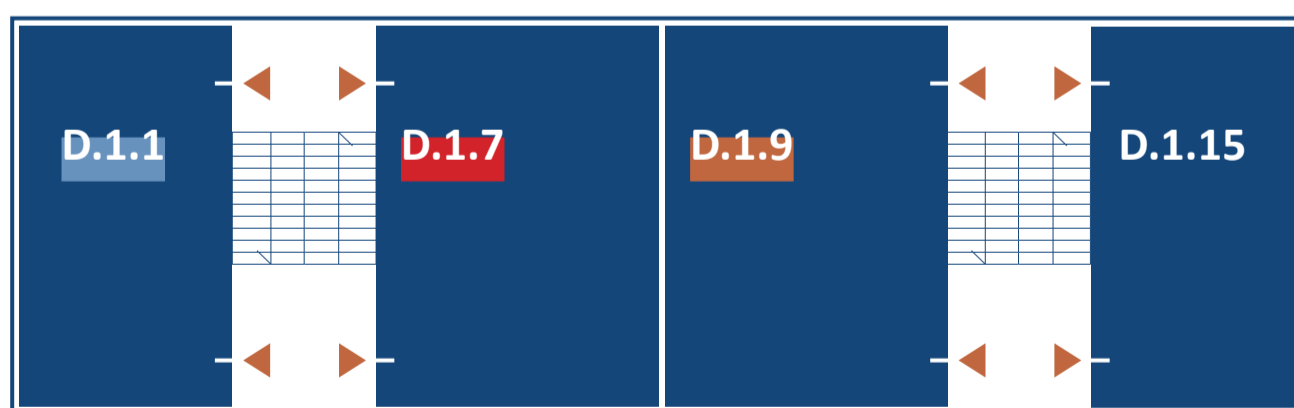
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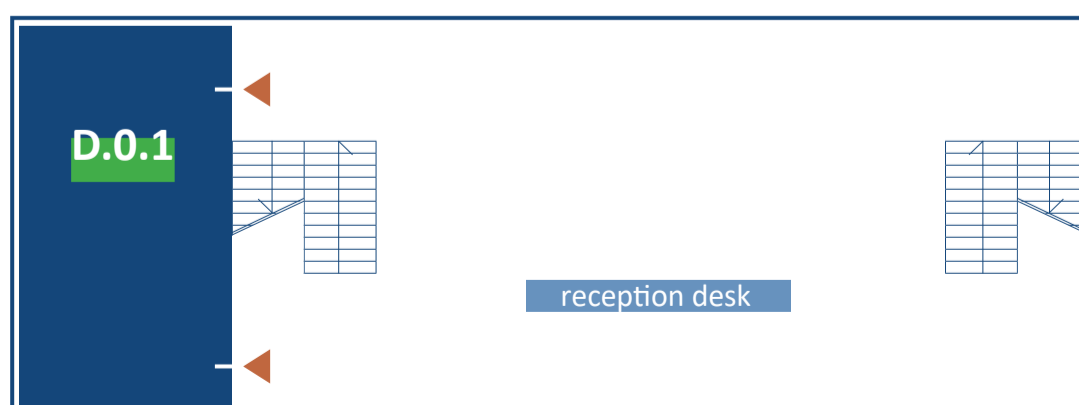
ground floor   main entrance

June, 6 Conference Program

8:00 - 9:00 Wake up coffee	

09:00-10:30 **D.1.7**	Panel Session, Roundtable Debate: **ITS IN PRACTICE: THEORY AND RESEARCH MEETING INDUSTRY AND CLIENTS.** MT-ITS 2019 Special Event under Honorary Patronage of Jacek Majchrowski Mayor of the City of Kraków *chaired by prof. Francesco Viti, University of Luxembourg*

10:30-11:00 Coffee break

	Traffic Control I D.1.7	**Eco-mobility** D.1.1	**Connected Autonomous Vehicles I** D.0.1
11:00-12:20	chair: Francesco Corman	chair: David Watling	chair: Florian Dandl
11:00-11:20	Statistical Analysis of Temporal Headway Development through Empirical Data in Urban Traffic *Maximilian Kumm* *University of Duisburg-Essen*	The Potential for Traffic Emission Reduction on Freeways with Dynamic Line Control System analyzed with PTV Vissim *Claude Marie Weyland* *Karlsruhe Institute of Technology (KIT)*	Applying Traffic Conflicts to Analyze Safety of Conventional and Autonomous Vehicles *Andrzej Tarko* *Purdue University*
11:20-11:40	Estimating empirically the response time of commercially available ACC controller under urban and freeway conditions *Michail Makridis* *European Commission, Joint Research Centre (JRC)*	A Simulation Tool for Energy Management of E-Mobility in Urban Areas *Marina Ferrara* *Department of engineering, Roma Tre University*	Game theory and cooperative-competitive performances in real time traffic signal settings based on floating car data *Vittorio Astarita* *Università della Calabria*
11:40-12:00	Modeling the Effects of Motorway Traffic Control on Driving Behavior in a Microscopic Traffic Simulation *Jan Grimm* *Fraunhofer IVI, Fraunhofer Institute for Transportation and Infrastructure Systems IVI*	An Integrated Decision Making Framework For Vehicle Selection in Shuttle Services: Case of A University Campus *Sercan Akti* *Technical University of Istanbul (ITU)*	C-ITS Pilot in Dresden – Designing a modular C-ITS architecture *Severin Strobl* *Fraunhofer Institute for Transportation and Infrastructure Systems IVI*
12:00-12:20	Macroscopic fundamental diagrams for train operations - are we there yet? *Francesco Corman* *VT ETH Zurich*	Sensitivity analysis of optimal routes, departure times and speeds for fuel-efficient truck journeys *David Watling* *University of Leeds*	Autonomous Mobility-on-Demand Real-Time Gaming Framework *Florian Dandl* *Bundeswehr University Munich*

12:30-13:30 Lunch

June, 6 Conference Program continued

12:30-13:30 Lunch

	D.1.7	**D.1.1**	**D.0.1**	**D.1.9**
13:30-14:50	**Traffic Control II** chair: Francesco Viti	**Connected Autonomous Vehicles II** SIEMENS *Ingenuity for life* chair: Łukasz Borowski *Stream sponsor: SIEMENS*	**ITS in Public Transport - models, data and analyses for Transit II** chair: Marco Rinaldi	**Early Stage Research I** *sponsored by: HERE* here
13:30-13:50	Effects of user adaption on traffic-responsive signal control in agent-based transport simulations *Theresa Thunig* *TU Berlin*	V2V- and V2X-Communication data within a distributed computing platform for adaptive radio channel modelling *Florian Pinzel, TU Dresden*	Modelling of traffic with dynamic bus lanes *Mateusz Szarata* *Rzeszow University of Technology*	Modelling Pedestrian Behaviours: simulations, video-analysis and experiments *Marialisa Nigro* *Roma Tre University*
13:50-14:10	A study of a comfortable vehicle motion predictive control with no speed limit reference *Jose Angel Matute* *Tecnalia Research & Innovation*	On exploring the potentialities of autonomous vehicles in urban spatial planning *Alice Consilvio* *DIME - University of Genoa*	Combining Speed Adjustment and Holding Control for Regularity-based Transit Operations *Aishah Mahyarni* *Delft University of Technology*	Simulator environment for DIL and SIL simulations for autonomous functions of electric vehicle *Marcin Mirosław* *Warsaw University of Technology*
14:10-14:30	Modeling and assessing adaptive cruise control stability: experimental insights *Raphael Stern* *Technical University of Munich*	How Will Autonomous Vehicles Operate in an Unlawful Environment? The Potential of Autonomous Vehicles for Disregarding the Law *Alexandros Dolianitis* *Centre for Research and Technology Hellas*	Taking The Self-Driving Bus: A Passenger Choice Experiment *Konstanze Winter* *Technical University of Delft*	Systematic Assessment of the quasi-dynamic assumption for congested and uncongested networks *Angela Romano* *University Naples*
14:30-14:50	A scalable approach for short-term predictions of link traffic flow by online association of clustering profiles *Alessandro Attanasi* *PTV Group SISTeMA*	Solving Traffic Signal Setting Problem Using Machine Learning *Paweł Gora* *University of Warsaw*	Mixed hybrid and electric bus dynamic fleet management in urban networks: a model predictive control approach *Marco Rinaldi* *University of Luxembourg*	The New Reality for Cities of the Future – Global Companies and Public Sector Collaboration *Martin Svec, Marcin Nejman* *Here*

15:00-15:30 Coffee break

	D.1.7	**D.1.1**	**D.0.1**	**D.1.9**
15:30-16:50	**Mobility-as-a-Service II** chair: Giulio Giorgione	**Non-motorized modes** chair: Guido Cantelmo	**ITS in Public Transport - models, data and analyses for Transit III** chair: Federico Orsini	**Early Stage Research II**
15:30-15:50	Exploring Demand Patterns of a Ride-Sourcing Service using Spatial and Temporal Clustering *Theo Liu* *Delft University of Technology*	Measuring cycle riding comfort in Southampton using an instrumented bicycle *Shahjahan Miah* *University of Southampton*	Automating Ticket Validation: A Key Strategy for Fare Clearing and Service Planning *Giovanni Tuveri* *University of Cagliari*	On the combination of the system optimal routing and the departure time assignment *Aleksandr Belov* *New-York University Abu-Dhabi*
15:50-16:10	Hybrid Choice Model to analyze electric car sharing demand in a university community *Stefano Carrese* *University of Roma Tre*	Walking and bicycle catchment areas of tram stops: factors and insights *Lotte Rijsman* *Delft University of Technology*	Optimization of rosters in public transport *Piotr Kisielewski* *Cracow University of Technology*	Using Probe Vehicle Data to Assess Reliability of Polish Motorways and Expressways *Piotr Olszewski, Tomasz Dybicz* *Warsaw University of Technology*
16:10-16:30	Optimization of Mobility On-Demand Fleet Operations Based on Dynamic Electricity Pricing *Fabian Fehn* *Technische Universität München*	Can ICT influence choice behavior? The role of mobile applications supporting Bike-Sharing Systems *Andreas Nikiforiadis* *Centre for Research and Technology Hellas*	A New Strategy For The Diagnosis Of The Bus Headways Using AVL Data *Ilgin Gökaşar* *Bogazici University*	POOLBUS - An innovative DRT experiment *Lucia Pintor* *University of Cagliari - DIEE*
16:30-16:50	Impacts of Shared Autonomous Vehicles on the Travelers' Mobility *Jamil Hamadneh* *Budapest University of Technology and Economics*	A low dimensional model for bike sharing demand forecasting *Guido Cantelmo* *Technical University of Munich*	Neural networks trained with WiFi traces to predict airport passenger behavior *Federico Orsini* *University of Padova*	Effective timetable scheduling *Piotr Kisielewski* *Cracow University of Technology*

18:30 Bus transfer from conference venue Działownia to the Gala Dinner place   **19:00** Gala Dinner at the Museum of Municipal Engineering

8:00 - 9:00 Wake up coffee

09:00-10:30 **D.1.7**	Keynote speech: **OPTIMAL CONTROL APPROACHES TO VEHICLE TRAJECTORY PLANNING** Prof. Markos Papageorgiou *Dynamic Systems and Simulation Laboratory, Technical University of Crete, Chania, Greece*

10:30-11:00 Coffee break

	D.1.7	**D.1.1**	**D.0.1**
11:00-12:20	**Electromobility** chair: Joschka Bischoff	**Railway operations, modelling and management** chair: Martin Sommer	**General ITS** chair: Constantinos Antoniou
11:00-11:20	Impacts of charging methods and mechanisms of zero-emission buses on costs and level of service *Niels van Oort* *TU Delft*	Identification and monitoring of concealed cracks in road pavement using a machine-learning approach *Filippo Pratico* *University Mediterranea of Reggio Calabria*	Assessment and classification of selected ITS in Poland *Artur Ryguła* *University of Bielsko-Biala*
11:20-11:40	An enhanced evolutionary method for routing a fleet of electric modular vehicles *Dhekra Rezgui* *University of Tunis*	Prescriptive Maintenance of Railway Infrastructure: From Data Analytics to Decision Support *Alice Consilvio* *DIME - University of Genoa*	CoNL route choice model: numerical assesment on a real dataset of trajectories *Fiore Tinessa* *University of Naples Federico I*
11:40-12:00	A Multiple Objective Formulation of An Electric Vehicle Routing Problem For Shuttle Bus Fleet at A University Campus *Selin Hulagu* *Technical University of Istanbul*	Introducing Network Softwarization in Next-Generation Railway Control Systems *Anna Lina Ruscelli* *Scuola Superiore Sant'Anna*	An Online Training Tool for Better Understanding the Operation and Significance of ITS *Charis Chalkiadakis* *Centre for Research and Technology Hellas - Hellenic Institute of Transport*
12:00-12:20	Impacts of vehicle fleet electrification in Sweden – a simulation-based assessment of long-distance trips *Joschka Bischoff* *TU Berlin*	Decentralized vehicle-mounted safety logic for secondary railway lines based on GNSS Positioning and Integrity Monitoring *Martin Sommer* *TU Dresden - Faculty of Transportation and Traffic Science „"Friedrich List"*	Big Data and Emerging Transportation Challenges: Findings from the NOESIS project *Constantinos Antoniou* *Chair of Transportation Systems Engineering, Technical University of Munich (TUM)*

12:30-13:30 Lunch

	D.1.7	**D.1.1**	**D.0.1**
13:30-14:50	**Demand modelling II** chair: Fulvio Simonelli	**Connected Autonomous Vehicles III** chair: Luigi Pariota	**Big-data and Machine Learning in ITS** chair: Florian Fuchs
13:30-13:50	On-Line Filtering of On-Street Parking Data to Improve Availability Predictions *Sergio Di Martino* *Università degli Studi di Napoli Federico II*	User throughput optimization for signalized intersection in a connected vehicle environment *Roozbeh Mohammadi* *Department of Built Environment, School of Engineering, Aalto University*	An Open Toolbox for Integrated Optimization of Public Transport Florian Fuchs *ETH Zürich Institut für Verkehrsplanung und Transportsysteme (IVT)*
13:50-14:10	Designing the conditions of road traffic in the cities taking into account the human factor *Andrii Galkin* *O. M. Beketov National University of Urban Economy in Kharkiv*	Dependability of V2I Services in the Communication Network of the Intelligent Transport Systems *Igor Kabashkin* *Transport and Telecommunication Institute*	Spatiotemporal Traffic Forecasting as a Video Prediction Problem *Dmitry Pavlyuk* *Transport and Telecommunication Institute*
14:10-14:30	Leveraging GIS Data and Topological Information to Infer Trip Chaining Behaviour at Macroscopic Level *Filippo Carrese* *Università degli Studi di Roma „"La Sapienza""*	Smart Intersection Management for Connected and Automated Vehicles and Pedestrians *Tanja Niels* *Bundeswehr University Munich*	Improving calibration time of traffic simulation models using parallel computing technique *Nima Dadashzadeh* *Traffic Technical Institute, Civil and Geodetic Engineering Faculty, University of Ljubljana*
14:30-14:50	Laboratory experiments to assess the reliability of traffic assignment models *Fulvio Simonelli* *University of Naples*	Motivating the need for an integrated software architecture for Connected and Automated Vehicles technologies development and testing *Luigi Pariota* *University of Naples „"Federico II"*	Capacity Building Strategies for further growth of the ITS Sector in Europe *Charis Chalkiadakis* *Centre for Research and Technology Hellas - Hellenic Institute of Transport*

15:00 Closing ceremony   D.1.7