

19th EURO Working Group on Transportation Meeting

EWGT 2016

Istanbul 5-7 September



Conference Programme

Monday, September 05

08:30 - 09:30 **Opening Session**
// Room 127

09:30 - 10:30 **Keynote Session**
Peter Wagner, German Aerospace Center, Germany
Towards Reliability in the Usage of Traffic Simulation Tools
// Room 127

10:30 - 11:00 **Coffee Break**

11:00 - 12:30 **MoSTI Session**

Chair Peter Wagner, German Aerospace Center, Germany		Chair Hande Demirel, Technical University of Istanbul, Turkey		Chair Oren E. Nahum, Bar-Ilan University, Israel		
MoSTI-A Traffic Flow Analysis - I // Room 127	11	Prediction of arterial travel time considering delay in vehicle re-identification Xiaoliang Ma, Fadi Al Khoury*, Junchen Jin	MoSTI-B Transport Planning // Room 131	13	Cognitive learning approach for travel demand modeling: Estimation results Sehnaz Cenani*, Theo A. Arentze, Harry J. P. Timmermans	
	51	Estimating freeway traffic volume using shockwaves and probe vehicle trajectory data Khairul Anuar, Mecit Cetin*		94	Measuring spill-over effects of public transport disruptions Caterina Malandri*, Achille Fonzone, Oded Cats	
	86	Identifying patterns under both normal and abnormal traffic conditions for short-term traffic prediction Athanasios Salamanis, Giorgos Margaritis, Dionysios D. Kehagias*, Georgios Matzoulas, Dimitrios Tzouvaras		113	Benchmarking for sustainable urban transport systems: A comparative study in Indian Metro Cities Rupali Zope, Shriniwas Arkatkar*, Guarang Joshi	
	117	Detection of urban traffic patterns from Floating Car Data (FCD) Oruc Altintasi*, Hediye Tuydes-Yaman, Kagan Tuncay		151	Spatio-temporal analyses for dynamic urban road network management Hande Demirel*, Wasim Shoman	
MoSTI-C Emergency Management // Room 134	66	Determination of relief supplies demands and allocation of temporary disaster response facilities Asli Sebatli*, Fatih Caudur, Merve Kose-Kucuk	85	An orienteering-based approach to manage emergency situation Ilaria Baffo, Pasquale Carotenuto*, Stefania Rondine	140	Network design model with evacuation constraints under uncertainty Oren E. Nahum*, Yuval Hadas, Riccardo Rossi, Massimiliano Gastaldi, Gregorio Gecchele
	169	Modeling of incident-induced capacity loss for hurricane evacuation simulation Yuan Zhu, Kaan Ozbay*, Kun Xie, Hong Yang				

12:30 - 14:00 **Lunch**

14:00 - 15:00 **MoST2 Session**

Chair Sazi Murat, Pamukkale University, Turkey		Chair Emanuel Broman, KTH Royal Institute of Technology, Sweden		Chair Hussein Dia, Swinburne University of Technology, Australia		
MoST2-A Traffic Flow Analysis - II // Room 131	92	Comparing performance of Bursa LRT with an imaginary BRT system Mehmet Rizelioglu*, Turan Arslan	MoST2-B Transport Modeling // Room 127	7	Stochastic user equilibrium in the presence of inertia Claudia Castaldi, Paolo Delle Site*, Francesco Filippi	
	119	Breakdown of weather, intersection and recurrent congestion impacts on urban delay in New York City M. Anil Yazici, Ayberk Kocatepe*, Eren Erman Ozguven		62	Market dynamics in on-rail competition Emanuel Broman*, Jonas Eliasson	
	129	Performance indicator for two-lane intercity highways under heterogeneous traffic condition Amardeep Boora*, Indrajit Ghosh		84	Feeder mode choice modeling for proposed integrated public transit service of Ahmedabad City: A case study Manjurali I. Balya, Rakeshkumar Singh*	
	139	Analysis of speed patterns on inter-urban parallel highways: A case study in the Southeast Florida Ayberk Kocatepe*, Eren Erman Ozguven, Arda Vanli, Ren Moses		127	Investigating the empirical existence of static user equilibrium Juste Raimbault*	
MoST2-C Ride Sharing & Mobility // Room 134	19	A relocation strategy for Munich's bike sharing system: Combining an operator-based and a user-based scheme Suenja Reiss*, Klaus Bogenberger	82	Autonomous shared mobility-on-demand: Melbourne pilot simulation study Hussein Dia*, Farid Javanshour	89	GIS-based identification and assessment of suitable meeting point locations for ride-sharing Paul Czioska*, Dirk C. Mattfeld, Monika Sester

15:00 - 16:30 **MoST3 Session**

Chair José Pedro Tavares, Universidade do Porto, Portugal		Chair Mehmet Yildirimoglu, École Polytechnique Fédérale de Lausanne, Switzerland		Chair Turan Arslan, Uludag University, Turkey		
MoST3-A Traffic Control & Management // Room 131	95	Intelligent traffic lights: Green time period negotiaton Cristina Vilarinho, José Pedro Tavares*, Rosaldo J.F. Rossetti	MoST3-B Assignment & Route Guidance // Room 127	14	A transit bottleneck model for optimal control strategies and its use in traffic assignment in Paris Jian Wen*, Fabien Leurent, Xiaoyan Xie	
	115	Refinement of performance measures based on high-resolution signal and detection data Igor Dakic*, Aleksandar Stevanovic, Milan Zlatkovic, Cameron Kergaye		36	Nonlinear model predictive control of large-scale urban networks with perimeter control and route guidance systems Isik Ilber Sirmatel*, Nikolas Geroliminis	
	186	Local ramp metering strategy ALINEA: Microscopic simulation based evaluation study on Istanbul Freeways Ismail M. Abuamer*, Hilmi Berk Celikoglu		40	Aggregated dynamic route choice patterns for large-scale mixed urban/freeway networks Mehmet Yildirimoglu*, Nikolas Geroliminis	
	187	Simulation-based variable speed limit systems modelling: An overview and a case study on Istanbul Freeways Mohd Sadat*, Hilmi Berk Celikoglu		52	Robust adaptive strategies for the guidance of users in road networks Farida Mansour*, Nadir Farhi, Habib Haj-Salem, Jean-Patrick Lebacque	
MoST3-C Fleet Management // Room 134	101	Optimization of taxi stand locations using GIS and set-covering techniques Banihan Gunay*, Erokan Canbazoglu, Sezgin Tekin	112	Towards cooperative parking search: Reducing travel time by information exchange between searching vehicles Matthias Rybarsch, Malte Aschermann*, Fabian Bock, Anne Goralzik, Felix Köster, Madlen Ringhand, Aleksandar Trifunovic	137	Quantifying demand dynamics for supporting fleet management in taxi services Elena Kourti, Christina Christodoulou, Loukas Dimitriou*, Symeon Christodoulou, Constantinos Antoniou
	152	Framework for automated taxi operation: The family model Michal Kümmel*, Fritz Busch, David Z.W. Wang				

16:30 - 17:00 **Gathering for Welcome Reception and Dinner**
// Hilton Istanbul Bosphorus

Tuesday, September 06								
08:30 - 09:30		Registration						
09:30 - 10:30		TuST0 Session						
Chair Duygu Tas, MEF University, Turkey		Chair Seugi Erdogan, University of Maryland, US						
TuST0-A Decision Analysis // Room 131	43	Framework for organizational structure re-design by assessing logistics' business processes in harbor container terminals Zineb Besri*, Azedine Boulmakoul	TuST0-B Electric Vehicles // Room 134	47	The influence of driving patterns on energy consumption in electric car driving and the role of regenerative braking Andreas Braun*, Wolfgang Rid			
	53	Modified top down approach for hierarchical forecasting in a beverage supply chain Dejan Mircetic*, Suetlana Nikolicic, Durdica Stojanovic, Marinko Maslaric		55	Analysis of the electric vehicles adoption over U.S. States Ali Soltani-Sobh, Kevin Heaslip, Aleksandar Stevanovic, Ryan Bosworth, Danilo Radiojevic*			
	150	A general morphological analysis to support strategic management decisions in public transport companies Maria de Fatima Teles*, Jorge Freire de Sousa		170	Multi-scale evaluation of zero-emission vehicles Wenbo Fan, Seugi Erdogan*, Timothy F. Welch, Frederick W. Ducca			
10:30 - 11:00		Coffee Break						
11:00 - 12:30		TuST1 Session						
Chair Javier Faulin, Public University of Navarre, Spain		Chair Rimmert van der Kooij, SINTEF Technology and Society, Norway			Chair Abdullah Hilmi Lau, Technical University of Istanbul, Turkey			
TuST1-A Vehicle Routing & Environmental Impacts // Room 127	88	A multicriteria analysis for the Green VRP: A case discussion for the distribution problem of a Spanish retailer Bartosz Sawik*, Javier Faulin, Elena Pérez-Bernabeu	TuST1-B Railway Networks - Traffic & Design // Room 134	16	Energy consumption minimization problem in a railway network Teresa Montrone*, Paola Pellegrini, Paolo Nobili	TuST1-C Traffic Safety - I // Room 131	72	An integration of different computing approaches in traffic safety analysis Yetis Sazi Murat, Ziya Cakici*
	124	Dynamic routing: Anticipation of emission-sensitive traffic management Felix Köster*, Marlin W. Ulmer, Dirk C. Mattfeld		75	Vulnerability analysis of railway networks in case of multi-link blockage Mostafa Bababeik*, Navid Khademi, Anthony Chen, M. Mahdi Nasiri		103	Safety evaluation of un-signalized intersection using surrogate safety measure under mixed traffic environment Srinivasula Reddy, Akhilesh Chepuri*, Narayana Raju, S.S.Arkatkar,Gaurang Joshi
	126	Reduction of errors when estimating emissions based on static traffic model outputs Nikolaos Tsanakas, Joakim Ekström*, Johan Olstam		105	Railway timetabling based on cost-benefit analysis Victoria Suedberg*, Martin Aronsson, Martin Joborn		188	A fundamental experimental approach for optimal design of speed bumps A. Hakan Lau, Ertugrul Bilgin*, Abdullah Hilmi Lau
	163	Fuel-efficient operation for heavy-duty vehicle platoons using real-time traffic information Ingrid Johansson*, Junchen Jin, Xiaoliang Ma, Henrik Pettersson		175	The effect of temporary speed restrictions, analyzed by using real train traffic data Rimmert B.K. van der Kooij*, Andreas D. Landmark, Andreas A. Seim, Nils O.E. Olsson		189	Development of a continuous motorcycle protection barrier system using computer simulation and full-scale crash testing Ali Atahan*, Marten Hiekmann, Jeffrey Himpe, Joseph Marra
12:30 - 14:00		Lunch						
14:00 - 15:00		Keynote Session Jaume Barceló, UPC-Barcelona Tech, Spain Traffic Simulation: Where we are and where we go // Room 127						
15:00 - 16:30		TuST2 Session						
Chair Esteve Codina, UPC-BarcelonaTECH, Spain		Chair Emre Koyuncu, Technical University of Istanbul, Turkey			Chair Ali Atahan, Technical University of Istanbul, Turkey			
TuST2-A Routing & Scheduling // Room 127	58	A bus crew scheduling problem with eligibility constraints and time limitations Hande Oztop*, Ugur Eliiyi, Deniz Tursel Eliiyi, Levent Kandiller	TuST2-B Aviation & Air Traffic // Room 134	10	Developing a performance indicators lean-sigma framework for measuring aviation system's safety performance Ilias Panagopoulos*, Chris Atkin, Iuan Sikora	TuST2-C Traffic Safety - II // Room 131	114	Drivers' attitude towards caffeine chewing gum as countermeasure to driver task-related fatigue Yuval Hadas*, Avi Tillman,Tova Rosenbloom, Riccardo Rossi, Massimiliano Gastaldi
	80	Setting services in public transit lines in short time periods under time-varying demand Esteve Codina*, Francisca Rosell, Luis Cadarso, Angel Marin		145	Large scale data-driven delay distribution models of European Air Traffic Flow Network Baris Baspinar*, Emre Koyuncu, Gokhan Inalhan		118	Driving on rough surface requires care and attention Akira Kawamura, Kazuya Tomiyama, Riccardo Rossi*, Massimiliano Gastaldi, Claudio Mulatti
	110	New integer programming formulation for multiple traveling repairmen problem Gozde Onder*, Imdat Kara, Tusan Derya		130	The comparison of the metaheuristic algorithms performances on airport gate assignment problem Abdullah Aktel*, Betül Yagmahan, Tuncay Ozcan, M. Mutlu Yenisey, Engin Sansarçı		154	Policy-driven investigation of sectoral latent information regarding global road fatalities Loukas Dimitriou*, Paraskevas Nikolaou, Constantinos Antoniou
	123	Accelerating local search algorithms for the travelling salesman problem through the effective use of GPU Gizem Ermis*, Bulent Catay		157	UAV-based traffic analysis: A universal guiding framework based on literature survey Muhammad Arsalan Khan*, Wim Ectors, Tom Bellemans, Davy Janssens, Geert Wets		160	Age-based stratification of drivers to evaluate the effects of age on crash involvement Mehmet Baran Ulak*, Eren Erman Ozguven, Lisa Spainhour
16:30 - 17:00		Coffee Break						
17:00 - 18:30		TuST3 Session						
Chair Luis Cadarso, Rey Juan Carlos University, Spain		Chair Abdullah Hilmi Lau, Technical University of Istanbul, Turkey			Chair Seckin Ozkul, University of South Florida, US			
TuST3-A Location Analysis & Network Design // Room 127	17	Determining an optimal area to locate a Biorefinery under economic and environmental criteria Adrian Serrano-Hernandez*, Javier Faulin, Jesus M. Pintor, Javier Belloso	TuST3-B Pedestrian Traffic // Room 134	6	The crossing speed and safety margin of pedestrians at signalized intersections Pelin Onelcin*, Yalcin Alver	TuST3-C Traffic Safety - III // Room 131	15	Detecting change in road environment via analysis of marked point processes associated with traffic signs Zoltan Fazekas*, Laszlo Gerencser, Peter Gaspar
	42	Cycle-tourist network design Alessandro Giovannini, Federico Malucelli, Maddalena Nonato*		12	Exploiting smartcard data to estimate distributions of passengers' walking speed and distances along an urban rail transit line Fabien Leurent, Xiaoyan Xie*		25	A comparative study between vehicle activated signs and speed indicator devices Diala Jomaa*, Siril Yella, Mark Dougherty
	70	Rapid transit network design: Considering recovery robustness and risk aversion measures Luis Cadarso*, Esteve Codina, Laureano F. Escudero, Angel Marin		27	Pedestrian fuzzy risk exposure indicator Meriem Mandar, Azedine Boulmakoul*, Ahmed Lbath		167	Evaluation of Red RRFB implementation at freeway off-ramps and its effectiveness on alleviating wrong-way driving Seckin Ozkul*, Pei-Sung Lin
	125	Location analysis of emergency vehicles using an approximate queueing model M. Altan Akdogan*, Z. Pelin Bayindir, Cem Iyigun		144	Improving mass transit performance by influencing passenger longitudinal location on platform Zoi Christoforou, Pierre-Adrien Collet, Bachar Kabanal*, Fabien Leurent, Axelle de Feraudy, Azwan Ali, Thilo Jessai Arakelian-von Freeden, Yuelu Li		190	Development of a precast slim temporary concrete safety barrier STCSB 50 for Work Zone Applications Ali Atahan, Wolfgang Ganster, Thomas Edl, Turan Arslan*
				161	Pedestrian counts. Issues and outcomes of the validation of a walkability assessment tool in Lisbon, Portugal Filipe Moura, Paulo Cambra*, Alexandre Gonçalves			
18:30 - 19:00		Gathering for Gala Dinner // Hilton Istanbul Bosphorus						
Wednesday, September 07								
08:30 - 09:30		Registration						
09:30 - 10:30		Keynote Session Mohamed Abdel-Aty, CATSS and University of Central Florida, US Applications of Simulation and Big Data in Proactive Traffic Management // Room 127						
10:30 - 11:00		Coffee Break						
11:00 - 12:30		WeSTI Session						
Chair Dilay Celebi, Technical University of Istanbul, Turkey		Chair Domokos Esztergar-Kiss, Budapest University of Technology and Economics, Hungary						
WeSTI-A Logistics & Port Operations // Room 131	56	A reward-based algorithm for the stacking of outbound containers Sel Ozcan*, Deniz Tursel Eliiyi	WeSTI-B Travel Data Analysis & ATIS // Room 134	8	Definition of user groups applying Ward's method Domokos Esztergar-Kiss*, Balint Caesar			
	61	Stakeholders-based multi-criteria policy analysis in maritime transport: From theory to practice Eliza Gagatsi, George Giannopoulos, Georgia Aifantopoulou, Georgios Charalampous*		29	A multimodal transport network model and efficient algorithms for building advanced traveler information systems Omar Dib*, Marie-Ange Manier, Laurent Moalic, Alexandre Caminada			
	99	DynaLoad: a simulation framework for planning, managing and controlling urban delivery bays Antonio Comi, Berta Buttarazzi*, Massimiliano M. Schiraldi, Rosy Innarella, Martina Varisco, Luca Rosati		37	Classification of travel data with multiple sensor information using random forest Muhammad Awais Shafique*, Eiji Hato			
	176	A new process model for urban transport of food in the UK Dimitris Zissis*, Emel Aktas, Michael Bourlakis		50	Traveler-oriented advanced traveler information system based on dynamic discovery of resources: Potentials and challenges Oudom Kem*, Flavién Balbo, Antoine Zimmermann			
12:30 - 14:00		Lunch						
14:00 - 15:00		Closing Session // Room 127 EWGT2016 Chair, EWGT2017 Chair, EWGT Coordinator						
15:00 - 15:30		Gathering for Bosphorus Cruise						