



EURO WORKING GROUP ON TRANSPORTATION

PROGRAM



4-6. SEPTEMBER 2017
BUDAPEST

DEAR EWGT PARTICIPANT,

We would like to welcome you in Budapest to the 20th Euro Working Group on Transportation conference. It is our honour to host you at a very iconic venue, in Hotel Gellért. During the conference we will learn about the newest models and technologies in various fields of transportation, and during the social events we will visit a glamorous location of the city and will enjoy the sunset on the river Danube, which provides an excellent networking opportunity. We sincerely hope that the discussions will lead to new cooperation possibilities, to new common scientific results and maybe to new friendships among the researcher's society.



Nowadays transportation related solutions require both a holistic approach and a deep understanding in the specific field. This idea is also reflected in the conference program, as it covers topics of transport modeling and control, transport economics and policy, planning and operation, innovative solutions.

We have received almost 400 abstracts, from which more than 180 final papers were accepted. The conference program will run in 5 parallel sessions and with more than 220 participants from almost 30 countries. The submitted papers were reviewed by members of the scientific committee, the international program committees and by external experts. We are very grateful for their voluntary work. We also wish to thank all authors for devoting time and energy to prepare excellent papers for the EWGT 2017 conference.

We believe that after Budapest the reputation of the conference will rise, and we will have the opportunity to meet in many different locations across Europe on further EWGT conferences.

DR. ISTVÁN VARGA
DEAN

FACULTY OF TRANSPORTATION ENGINEERING AND VEHICLE ENGINEERING
BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS (BME)

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CONFERENCE PROGRAM

PROGRAM OF THE 20TH EURO WORKING GROUP ON TRANSPORTATION MEETING (EWGT 2017)

04.09.2017, MONDAY

05.09.2017, TUESDAY

9:00 - 10:00	Plenary session - Tea room				
	István Varga (Budapest University of Technology and Economics) Opening and Welcome				
	Riccardo Rossi (University of Padova) Summary of the annual activities of EWGT				
	Kálmán Dabóczi (BKK Centre for Budapest Transport) Responsible mobility management for liveable Budapest				
	coffee break				
10:30 - 12:30	Tea room	Gobelin room	Zene room	Forrás room	Kávé room
	Traffic flow modeling	Decision support analysis and operation research	Advanced vehicular communication technologies	Public transport planning and operation	Active travel modes
	lunch				
13:30 - 15:30	Traffic flow modeling	Decision support analysis and operation research	Autonomous vehicle system applications	Choice modeling	Shared mobility
	coffee break				
16:00 - 18:00	Multi-modal transportation	Impact assessments and ex-post evaluation	Autonomous vehicle system applications	Urban mobility	Advanced modeling approaches in logistics
	conference dinner				
19:00					

9:00 - 10:00	Plenary session - Tea room				
	Prof. Jonas Eliasson (City of Stockholm Transportation Department) Achieving support for efficient solutions? A fundamental transport policy dilemma				
	coffee break				
10:30 - 12:30	Tea room	Gobelin room	Zene room	Forrás room	Kávé room
	Simulation and optimization of transportation systems	Energy consumption and emission modeling	Heuristic methods in optimization	Automatic data collection methods	Management of intelligent rail transport systems
	lunch				
13:30 - 15:30	Simulation and optimization of transportation systems	Energy consumption and emission modeling	Heuristic methods in optimization	Automatic data collection methods	Management of intelligent rail transport systems
	coffee break				
16:00 - 18:00	Simulation and optimization of transportation systems	Smart cities and smart mobility	Autonomous vehicle system applications	Land use and transport interactions	Travel time reliability and wider economic benefits
	gala dinner				
19:00					

06.09.2017, WEDNESDAY

9:00 - 10:00	Plenary session - Tea room				
	Prof. Francesco Viti (University of Luxembourg) Understanding Daily Demand Flows in the Era of Big Data				
	coffee break				
10:30 - 12:30	Tea room	Gobelin room	Zene room	Forrás room	Kávé room
	Dynamic network modeling and optimization	Transportation economics and financing	Control and management of transportation systems	Human factors and travel behavior	Transportation planning and traffic engineering
	lunch				
13:30 - 15:30	Dynamic network modeling and optimization	Big data in transportation	Vehicle routing and route planning	Road safety and human factors	Air transport operations
	coffee break				
16:00 - 17:30	Land use and transport interactions	Road transport services	City logistics	Human factors	Transport related services
17:30 - 18:00	Plenary session - Tea room				
	Closing session				

Topic: Responsible mobility management for liveable Budapest

BKK Centre for Budapest Transport - established in 2010 – is acting as a responsible mobility manager of the city providing strategic planning and organising public transport services, harmonising travel demand based upon sustainability principles. As a result of the past years' development and innovation, Budapest managed to join the league of metropolises that have an efficient transport governance system with an integrated mobility manager, a sustainable urban mobility plan (SUMP) and a public transport system that provides better services, integrated transport infrastructure with more connections and has attractive vehicles, is customer oriented and values quality and innovation. A responsible mobility manager has to be committed to helping citizens to become smart travellers with reasonable mobility choices, and be aware and implement the latest trends in mobility, such as e-mobility, automation, public participation, mobility as a service and sharing based mobility.

Speaker: Dr. Kálmán Dabóczi (CEO of BKK Centre for Budapest Transport)

Dr Kálmán Dabóczi has been working in the transport sector in middle and upper management level positions, with special focus on public transport, for nearly a decade. Prior to his appointment as CEO of BKK Centre for Budapest Transport, he was responsible for the management and ministerial supervision of the Budapest Transport Association (BKSZ). Dr Dabóczi was Head of Division for Transport Sciences and General Deputy of the Managing Director at KTI Institute for Transport Sciences from 2011 to 2014. Previously, between 2006 and 2014, he worked as chief advisor at the State Secretariat for Infrastructure of the Ministry of National Development where he participated in the law-making process of the Act on Passenger Transport Services. Dr Dabóczi also participated in several sector reform programmes and provided expert decision support for the transformation of state-owned transport service providers, such as the reorganisation of the MÁV Hungarian State Railways Group. Dr Dabóczi also plays an active role in the work of the Transport Science Association.

DAY
1



KEYNOTE SPEECH

DAY 2



Topic: Achieving support for efficient solutions? A fundamental transport policy dilemma

Urban transport planning is characterized by the scarcity of space and several kinds of externalities such as congestion and emissions. This means that the cornerstones of urban transport planning are 1) space-efficient ways of transportation, e.g. attractive public transport, smart logistics etc. 2) ways to internalize externalities, e.g. congestion pricing, emission control zones etc. In principle, these strategic planning principles are well understood by transport planners and economists. The hitch is that such measures often meet resistance from politicians and the general public. There are several obstacles for implementing smart and efficient urban mobility solutions, including the inherent shortsightedness of politics (future citizens don't vote in today's elections), status quo bias, resistance against pricing as an allocation measure, failure by decision-makers to choose the most cost-efficient investments and many others. This talk discusses the nature of some of these obstacles, and provides ideas for how they can be overcome.

Speaker: Prof. Jonas Eliasson
(Director of the City of Stockholm Transportation Department)

Jonas Eliasson is Director of the Stockholm City Transport Administration, on part-time leave from his full professorship in Transport Systems Analysis at the KTH Royal Institute of Technology. His research interests center around transport policy design and evaluation, including cost-benefit analysis, transport pricing, decision making in the transport sector, and public and political acceptability of transport policies. Prof. Eliasson has a long involvement in analyzing, developing and applying transport policies and appraisal methodologies, acting as expert advisor to a large number of city leaders and national governments on strategic transportation issues, often involving sustainable transport planning, transport pricing and social and economic appraisal. He has been heavily involved in the design and evaluation of the congestion pricing systems in Stockholm and Gothenburg, and has chaired the national committee for analysis of the National Transport Investment Plan.

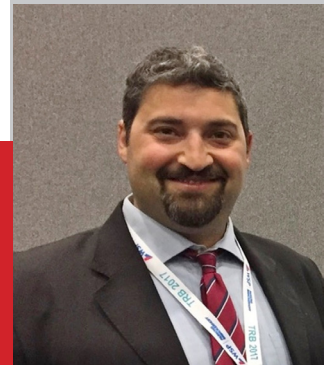
Topic: Understanding Daily Demand Flows in the Era of Big Data

The next decades will be characterized by greater investments on sensor technologies and Intelligent Transportation Systems, to facilitate the paradigm shift towards full automation and connectivity in transport and mobility. If intelligent vehicles and the smart mobility services will partly mitigate the random nature of human factors, not everything in the future will be predictable. Demand flows will still unavoidably be driven by personal mobility needs, and travel choices will, on the contrary, become more complex and ill predictable due to an increasing number of multimodal and interacting sharing options. This talk will provide an overview of the current and future challenges in capturing and modeling daily mobility patterns from various sources of (big) data (GSM, floating car data, smartphones, etc.), and proposes a list of ingredients in both models and technologies, which are deemed necessary to estimate dynamic demand flows that are consistent with the observed daily activity-travel behavior.

Speaker: Prof. Francesco Viti
(Associate professor at the University of Luxembourg)

Francesco Viti is Associate Professor in Transportation Engineering at the University of Luxembourg, as well as associate professor within the Interdisciplinary Center for Security, Reliability and Trust and the MIT-Luxembourg Center for Logistics. He is the head of the MobiLab Transport Research Group, where research and teaching activities range from mobility analysis and management, development of decision support systems for travellers and for transport operators, Intelligent Transport Systems and network modeling and control. Having a strong interdisciplinary vision, combining engineering, computer science and social sciences, his team has well-established collaborations with different national and international academic and industrial partners. He is author of more than 60 publications, and more than 150 conference papers, reviewer of most of the top journals in the transportation domain, Associate Editor of Journal of ITS and Transportation Research Part C and acts as Scientific Committee member for the major conferences in transportation.

DAY 3

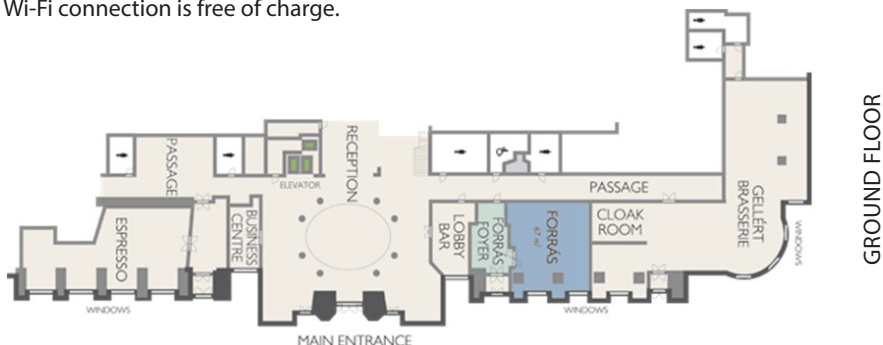


VENUE

HOTEL GELLÉRT is an art nouveau style, 4 star hotel in the heart of the city. The venue is on the side of the Danube, connected to one of the most famous spas in Budapest. The Gellért Bath was built in the preceding decades, and opened its doors in 1918. Outdoor pools were added later on, and today it combines modern technical developments with rich historical heritage.



The conference will be also located in Hotel Gellért with 5 parallel sessions, 1 room on the ground floor (Forrás), 3 rooms on the first floor (Tea, Gobelin, Kávét) and 1 room in the second floor (Zene). Wi-Fi connection is free of charge.



GROUND FLOOR



FIRST FLOOR

SOCIAL EVENTS

GROUP PHOTO

In order to make this conference memorable, we would like to take a group photo with the background of the facade of Hotel Gellért.

Time: 04.09.2017 Monday, 18:30
(meeting in front of Hotel Gellért)
Please arrive due time, as we would like to take the group photo with all of you!

CONFERENCE DINNER – PANORAMA BOAT TRIP

A 3 hour panorama boat trip starting from Gellért port (ca. 200 m from the hotel) will be organized. All you can eat buffet will be provided with 3 drinks included. During the dinner the ship sails on the river Danube along the most famous sights of Budapest, as Gellért Hill, Buda Castle, Parliament, Chain Bridge and Margaret Island. It is possible to enter the deck of the ship and enjoy the panorama of Budapest during sunset.



Time: 04.09.2017 Monday, 18:45
(meeting in front of Hotel Gellért)

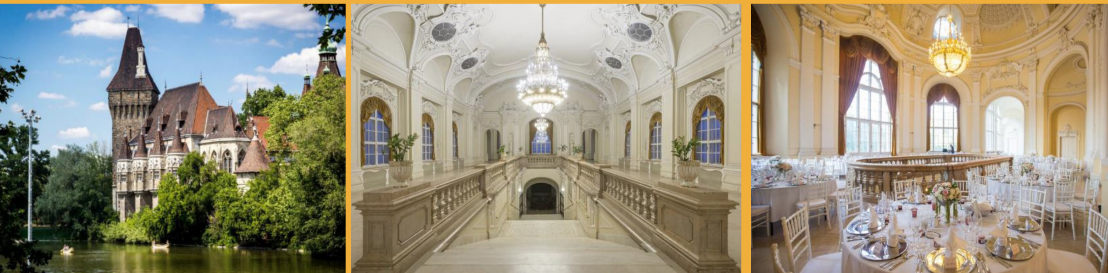
The ship sails exactly at 19:00,
and cannot wait for late arrivals!

Location: 1111 Budapest,
Szent Gellért tér 1, Gellért port



GALA DINNER – VAJDAHUNYAD CASTLE

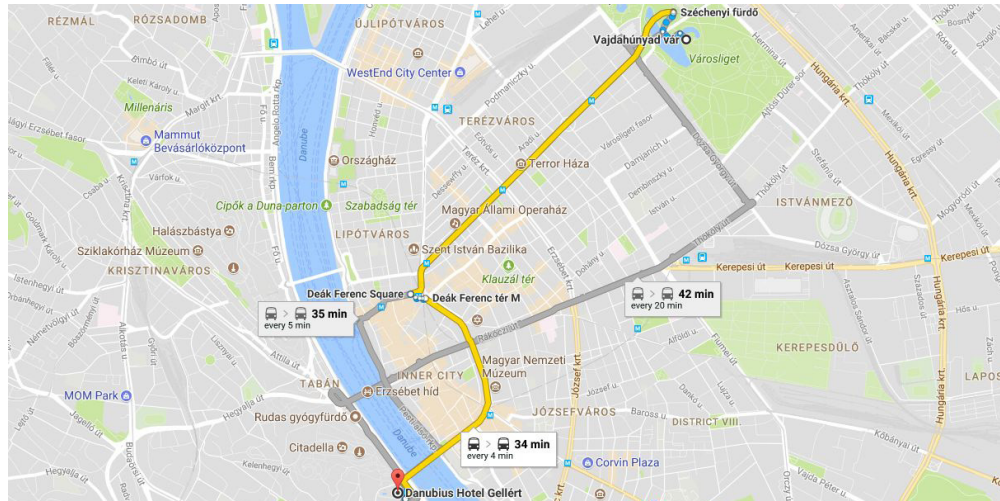
On the second evening we will visit a precious castle located in the City Park (Városliget) by a boating lake, nearby Heroes Square, to be accessed with the Millenium Underground. Vajdahunyad Castle is one of the romantic castles in Budapest, and despite all appearances it was built in 1896. The castle is in fact a fantasy pastiche showcasing the architectural evolution through centuries and styles in Hungary. Special foods and drinks will be served during our stay in the most glamorous room of the palace.



Time: 05.09.2017, Tuesday, 19:00 (individual travel to the location)
Location: 1146 Budapest, Vajdahunyad vár (in Városliget)

You may travel with tram 47 or 49 (in direction “Deák Ferenc tér”, for 4 stop, change at the final station “Deák Ferenc tér”), take the Millenium Underground M1 (in direction “Mexikói út”, for 8 stops, change at “Széchenyi fürdő”). Then you have to walk only 400 m, crossing the main road in the direction of the boating lake, where you will see a castle.

The whole journey will take ca 30 minutes. You may buy tickets from the automatic vending machine in the stop in front of Hotel Gellért.



BUDAPEST is the capital of Hungary with about 1.75 million inhabitants. The city was founded in 1873 uniting Buda, Pest and Óbuda, however the history of the city goes back to the Roman times. Budapest is the political, cultural and commercial center of the country, but also a city of surprises with its lively centre, pretty parks, majestic river, tall church spires and relaxing spas. Especially in the last decade the city has become one of the most visited destinations in Europe among young people. More UNESCO World Heritage sites and beautiful buildings from the XIX. century are to be found in the city. Budapest was chosen by several traveling websites to one of the best and most interesting cities of the world.

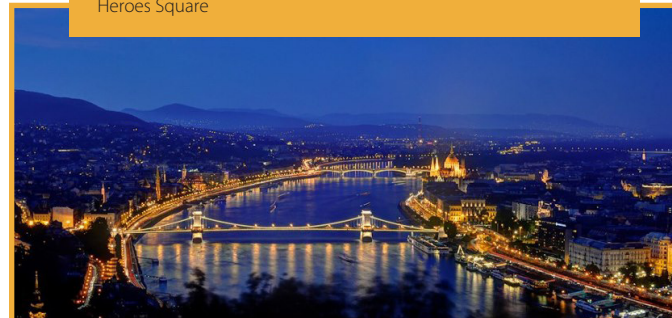
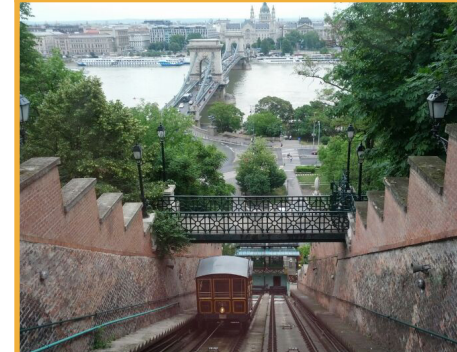
Tradition and innovation are typical keywords when thinking about the transportation system of Budapest and in general terms of Hungary. Budapest launched the first metro line in the European continent in 1896 and a state-of-the-art bike-sharing system was opened in 2013. In green urban areas on the hilly side of Buda there are peculiar means of transport, such as children's railway, which is a touristic narrow gauge railway line opened in 1948. In the dense business area of Pest the longest trams are running on the busiest tram line of Europe used by ca 220.000 passengers. Connecting Buda and Pest on the two sides of the Danube a fully automated metro line serves passengers as a modern transportation mode.

Cultural highlights

- Buda Castle district
- Statue of Liberty on Gellért Hill
- Chain Bridge
- Parliament
- St. Stephen's Basilica
- Heroes Square

Recreational opportunities

- Gellért bath
- Széchenyi bath
- City park with Zoo
- Margaret Island
- Opera House





Budapest University of Technology and Economics (BME) was founded in 1782, and is one of the largest higher educational institutions in engineering in Central Europe with about 24.000 students and 1.200 teachers and researchers. The Faculty of Transportation Engineering and Vehicle Engineering (BME KJK) aims to be the scientific center in the fields of transportation engineering, vehicle engineering and logistics engineering. As the national knowledge centre the Faculty's mission defines the undertaking of high level of scientific activity, research and development, offering expertise and consultation to transport and vehicle industry companies, the logistics services sector and to industrial policy makers. The Faculty maintains active relationships with key European education institutions in similar areas of training, and encourages the versatile mobility of lecturers, researchers and students, and the establishment and development of their personal and professional relationships.

BME KJK has participated in 4 FP5, in 7 FP6 and in 9 FP7 projects and has already 4 running Horizon 2020 projects. Regarding the number of publications BME is on the top of the Hungarian Universities. Our research team is also active in interregional programs, as COST Actions, Central Europe, Danube Transnational Program and Visegrad Fund. The Faculty is member of significant international scientific organizations, as European Association for Research in Transportation (hEART), European Conference of Transport Research Institutes (ECTRI), Association for European Transport (AET).

The Department of Transport Technology and Economics has been carrying out research and education in the interdisciplinary fields of transportation engineering and economics for about 60 years, focusing on questions like strategic and operative planning, operation and management, decision support in transport and logistics, ITS development, evaluation and control of transport networks, analysis of passenger and freight transport processes also with regard to the aspects of transport safety and sustainability.

Ádám Török	Hungary	Budapest University of Technology and Economics
Agostino Nuzzolo	Italy	Tor Vergata University
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Evangelos Mitsakis	Greece	Hellenic Institute of Transport
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Francesco Viti	Luxembourg	University of Luxembourg
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Yuval Hadas	Israel	Bar-Ilan University
Zoi Christoforou	France	University of Paris-Est



MONDAY, SEPTEMBER 4TH

CONFERENCE PROGRAM

09:00-10:00 PLENARY SESSION

LOCATION: TEA ROOM

- 09:00 **István Varga** (Budapest University of Technology and Economics, Hungary)
OPENING AND WELCOME
- 09:10 **Riccardo Rossi** (University of Padova, Italy)
SUMMARY OF THE ANNUAL ACTIVITIES OF EWGT
- 09:15 **Kálmán Dabóczi** (BKK Centre for Budapest Transport, Hungary)
PUBLIC TRANSPORTATION DEVELOPMENT IN BUDAPEST

10:00-10:30 COFFEE BREAK

2A

10:30-12:30 TRAFFIC FLOW MODELING

CHAIR: RICCARDO ROSSI (UNIVERSITY OF PADOVA, ITALY)
LOCATION: TEA ROOM

- 10:30 **Antonio Sánchez Soliño** (Universidad Politécnica de Madrid, Spain)
Antonio L. Lara Galera (Universidad Politécnica de Madrid, Spain)
Fernando Cabero Colín (Universidad Politécnica de Madrid, Spain)
MEASURING UNCERTAINTY OF TRAFFIC VOLUME ON MOTORWAY CONCESSIONS: A TIME-SERIES ANALYSIS
- 11:00 **Riccardo Rossi** (University of Padova, Italy)
Federico Rupi (University of Bologna, Italy)
Federico Pascucci (Technical University of Braunschweig, Germany)
Alessandra Mantuano (University of Bologna, Italy)
FITTING TIME HEADWAY AND SPEED DISTRIBUTIONS FOR BICYCLES AT SEPARATED BICYCLE LANE
- 11:30 **Rafael Mena Yedra** (Universitat Politècnica de Catalunya / TSS – Transport Simulation Systems S.L., Spain)
Ricard Gavalda (Universitat Politècnica de Catalunya, Spain)
Jordi Casas (TSS – Transport Simulation Systems S.L., Spain)
ADARULES: LEARNING RULES FOR REAL-TIME ROAD-TRAFFIC PREDICTION
- 12:00 Borja Alonso (GIST- Departamernto de Transportes y Tecnología de Proyectos y Procesos. Universidad de Cantabria, Spain)
Ángel Ibeas Pòrtilla (GIST- Departamernto de Transportes y Tecnología de Proyectos y Procesos. Universidad de Cantabria, Spain)
Giuseppe Musolino (DIIES-Università Mediterranea di Reggio Calabria, Italy)
Corrado Rindone (DIIES-Università Mediterranea di Reggio Calabria, Italy)
Antonino Vitetta (DIIES-Università Mediterranea di Reggio Calabria, Italy)
NETWORK FUNDAMENTAL DIAGRAM (NFD) AND TRAFFIC SIGNAL CONTROL: FIRST EMPIRICAL EVIDENCES FROM THE CITY OF SANTANDER

2B

10:30-12:30

DECISION SUPPORT ANALYSIS AND OPERATION RESEARCH

CHAIR: GRZEGORZ SIERPINSKI (SILESIA UNIVERSITY OF TECHNOLOGY, POLAND)
LOCATION: GOBELIN ROOM

- 10:30 Bartosz Sawik (AGH University of Science and Technology, Poland)
Javier Faulin (Universidad Pública de Navarra, Spain)
Elena Pérez-Bernabeu (Universitat Politècnica de València, Spain)
MULTI-CRITERIA OPTIMIZATION FOR FLEET SIZE WITH ENVIRONMENTAL ASPECTS
- 11:00 **Jacek Żak** (Poznan University of Technology, Poland)
MULTIPLE-CRITERIA AND GROUP-DECISION MAKING IN THE FLEET SELECTION PROBLEM FOR A PUBLIC TRANSPORTATION SYSTEM
- 11:30 Tânia Fontes (FEUP - Faculty of Engineering University of Porto, Portugal)
José Correia (INESC-TEC, Portugal)
Jorge Pinho de Sousa (FEUP - Faculty of Engineering University of Porto, Portugal)
Jorge Freire De Sousa (Faculty of Engineering University of Porto, Portugal)
Teresa Galvão (FEUP - Faculty of Engineering University of Porto, Portugal)
A MULTI-USER INTEGRATED FRAMEWORK FOR SUPPORTING THE DESIGN AND MANAGEMENT OF URBAN MOBILITY SYSTEMS
- 12:00 Elpidio Romano (International Telematic University of Uninettuno UTIU, Italy)
Adacher Ludovica (Roma Tre, Italy)
Marta Flamini (International Telematic University of Uninettuno UTIU, Italy)
Manuele Guaita (Roma Tre, Italy)
A DECISION SUPPORT MODEL TO MANAGE/DESIGN A TERMINAL AREA IN THE AIR-PORT

2C

10:30-12:30

ADVANCED VEHICULAR COMMUNICATION TECHNOLOGIES

CHAIR: OLIVER MICHLER (TU DRESDEN, GERMANY)
LOCATION: ZENE ROOM

- 10:30 **Ellen F Grumert** (Swedish National Road and Transport Research Institute (VTI) and Linköping University, Sweden)
Andreas Tapani (Swedish National Road and Transport Research Institute (VTI), Sweden)
USING CONNECTED VEHICLES IN A VARIABLE SPEED LIMIT SYSTEM
- 11:00 **Yukimasa Matsumoto** (Meijo University, Japan)
Shogo Ishiguro (Meijo University, Japan)
EFFECT OF INFORMATION PROVISION TO FOLLOWING VEHICLE ON REDUCING AMOUNT OF CO2 EMISSIONS AND SAFETY DRIVE

- 11:30 Oliver Michler (TU Dresden, Germany)
Benjamin Reichelt (TU Dresden, Germany)
Sven Eckelmann (HTW Dresden, Germany)
Toralf Trautmann (HTW Dresden, Germany)
Hagen Ußler (TU Dresden, Germany)
V2V-COMMUNICATION, LIDAR SYSTEM AND POSITIONING SENSORS FOR FUTURE FUSION ALGORITHMS IN CONNECTED VEHICLES
- 12:00 **Olivér Törő** (Budapest University of Technology and Economics, Hungary)
Tamás Bécsi (Budapest University of Technology and Economics, Hungary)
Szilárd Aradi (Budapest University of Technology and Economics, Hungary)
PERFORMANCE EVALUATION OF A BERNOULLI FILTER BASED MULTI-VEHICLE COOPERATIVE OBJECT DETECTION

2D

10:30-12:30 PUBLIC TRANSPORT PLANNING AND OPERATION

CHAIR: AGOSTINO NUZZOLO
(DEPT. OF ENTERPRISE ENGINEERING - UNIVERSITY OF ROME TOR VERGATA, ITALY)
LOCATION: FORRÁS ROOM

- 10:30 **Marialisa Nigro** (Roma Tre University, Italy)
Raffaella Calò (Roma Tre University, Italy)
Valentina Conti (ENEA, Italy)
Silvia Orchi (ENEA, Italy)
Maria Pia Valentini (ENEA, Italy)
DESIGN AND EVALUATION OF ELECTRIC SOLUTIONS FOR PUBLIC TRANSPORT
- 11:00 **Jishnu Narayan** (TU Delft, Netherlands)
Oded Cats (TU Delft, Netherlands)
Niels van Oort (TU Delft, Netherlands)
Serge Hoogendoorn (TU Delft, Netherlands)
PERFORMANCE ASSESSMENT OF FIXED AND FLEXIBLE PUBLIC TRANSPORT IN A MULTI AGENT SIMULATION FRAMEWORK
- 11:30 **Antonio Comi** (Dept. of Enterprise Engineering - University of Rome Tor Vergata, Italy)
Agostino Nuzzolo (Dept. of Enterprise Engineering - University of Rome Tor Vergata, Italy)
Stefano Brinchi (Rome Mobility Agency, Italy)
Renata Verghini (Rome Mobility Agency, Italy)
BUS TRAVEL TIME VARIABILITY: SOME EXPERIMENTAL EVIDENCES
- 12:00 **Marta Campos Ferreira** (University of Porto – Faculty of Engineering, Portugal)
Vera Costa (University of Porto – Faculty of Engineering, Portugal)
Teresa Galvão (University of Porto – Faculty of Engineering, Portugal)
João Falcão E Cunha (University of Porto – Faculty of Engineering, Portugal)
UNDERSTANDING COMMERCIAL SYNERGIES BETWEEN PUBLIC TRANSPORT AND SERVICES LOCATED AROUND PUBLIC TRANSPORT STATIONS

2E

10:30-12:30 ACTIVE TRAVEL MODES

CHAIR: MADDALENA NONATO (UNIVERSITY OF FERRARA, ITALY)

LOCATION: KÁVÉ ROOM

- 10:30 Mateus Humberto Andrade (CERIS, Instituto Superior Técnico, Universidade de Lisboa; Escola Politécnica, Universidade de São Paulo, Portugal)
Rodrigo Deusdará Laboissière (Escola Politécnica, Universidade de São Paulo, Brazil)
 Mariana Abrantes Giannotti (Escola Politécnica, Universidade de São Paulo, Brazil)
 Daniel Agostini Cruz (Escola Politécnica, Universidade de São Paulo, Brazil)
 Henrique Barbosa Primon (Escola Politécnica, Universidade de São Paulo, Brazil)
 Claudio Luiz Marte (Escola Politécnica, Universidade de São Paulo, Brazil)
WALKING AND WALKABILITY: DO BUILT ENVIRONMENT MEASURES GO ALONG WITH PEDESTRIAN ACTIVITY?
- 11:00 **Mark Meeder** (ETH Zürich, Switzerland)
 Tobias Aebi (ETH Zurich, Switzerland)
 Ulrich Weidmann (ETH Zürich, Switzerland)
THE INFLUENCE OF SLOPES ON WALKING ACTIVITY
- 11:30 **Ana Paula Barros** (UnICEUB (Brasilia/Brazil)/ IST-UL (Lisbon/Portugal), Brazil)
 Luis Miguel Martínez (ITF-OECD (International Transport Forum), France)
 José Manuel Viegas (ITF-OECD (International Transport Forum), France)
HOW URBAN FORM PROMOTES WALKABILITY?
- 12:00 Francesco Bella (Roma TRE University, Italy)
Manuel Silvestri (Roma TRE University, Italy)
 Valentina Natale (Roma TRE University, Italy)
DRIVER-PEDESTRIAN INTERACTION UNDER DIFFERENT ROAD ENVIRONMENTS

12:30-13:30 LUNCH BREAK

3A

13:30-15:30 TRAFFIC FLOW MODELING

CHAIR: GUIDO GENTILE (SAPIENZA UNIVERSITY OF ROME, ITALY)

LOCATION: TEA ROOM

- 13:30 **Zsolt Berki** (FÖMTERV Ltd., Hungary)
 Janos Monigl (FÖMTERV Ltd., Hungary)
TRIP GENERATION AND DISTRIBUTION MODELLING IN BUDAPEST
- 14:00 Alexis Poulhès (ENPC-LVMT, France)
Cyril Pivano (ENPC-LVMT, France)
 Fabien Leurent (ENPC-LVMT, France)
HYBRID MODELING OF PASSENGER AND VEHICLE TRAFFIC ALONG A TRANSIT LINE: A SUB-MODEL READY FOR INCLUSION IN A MODEL OF TRAFFIC ASSIGNMENT TO A CAPACITATED TRANSIT NETWORK

- 14:30 **Roberta Di Pace** (Dipartimento di Ingegneria Civile, Università degli Studi di Salerno, Italy)
 Giulio Erberto Cantarella (University of Salerno, Italy, Italy)
 Stefano de Luca (University of Salerno, Italy)
 Massimo Di Gangi (Università di Messina, Italy)
SCHEDULED SYNCHRONISATION BASED ON A MESOSCOPIC FLOW MODEL WITH SPEED DISPERSION

- 15:00 **Simon Cohen** (IFSTTAR, France)
 Zoi Christoforou (Ecole des Ponts ParisTech, France)
 David Gil (CEREMA, France)
NEW RAMP METERING AND DYNAMIC SPEED CONTROL ON THE A25 MOTORWAY: THE EFFICIENCY OF COMBINED MEASURES

3B

13:30-15:30

DECISION SUPPORT ANALYSIS AND OPERATION RESEARCH

CHAIR: JAVIER FAULIN

(DEPARTMENT OF STATISTICS AND OR. PUBLIC UNIVERSITY OF NAVARRE, SPAIN)

LOCATION: GOBELIN ROOM

- 13:30 André Romano Alho (Singapore-MIT Alliance for Research and Technology, Singapore)
 Monique Stinson (Massachusetts Institute of Technology, USA)
Diem Trinh Le (Singapore-MIT Alliance for Research and Technology, Singapore)
 Raja Gopalakrishnan (Singapore-MIT Alliance for Research and Technology, Singapore)
 Bhavathrathan Kuzhiyamkunnath (Singapore-MIT Alliance for Research and Technology, Singapore)
 Moshe Ben-Akiva (Massachusetts Institute of Technology, USA)
A MULTI-SCALE AGENT-BASED MODELLING FRAMEWORK FOR URBAN FREIGHT DISTRIBUTION
- 14:00 **Lorant Tavasszy** (Delft University of Technology, Netherlands)
 Jafar Rezaei (Delft University of Technology, Netherlands)
 Buse Tali (Delft University of Technology, Netherlands)
 Wan Liu (Delft University of Technology, Netherlands)
MEASURING SHIPPERS' PREFERENCES FOR FREIGHT TRANSPORT SERVICE ATTRIBUTES USING MCDA METHODS
- 14:30 Daniel Eisenberger (Zurich University of Applied Sciences, Switzerland)
Olga Dr. Fink (Zurich University of Applied Sciences, Switzerland)
ASSESSMENT OF MAINTENANCE STRATEGIES FOR RAILWAY VEHICLES USING PETRI-NETS

15:00 **Shalini Kurapati** (TU Delft, Netherlands)
Ioanna Kourounioti (TU Delft, Netherlands)
Heide Lukosch (TU Delft, Netherlands)
Lóránt Tavasszy (TU Delft, Netherlands)
Geertje Bekebrede (TU Delft, Netherlands)
Alexander Verbraeck (TU Delft, Netherlands)
Jaco van Meijeren (TNO, Netherlands)
Daan Groen (In There, Netherlands)
Layla Lebesque (TNO, Netherlands)
**SITUATION AWARENESS IN SYNCHROMODAL FREIGHT CORRIDOR MANAGEMENT:
A SIMULATION GAMING STUDY**

3C

13:30-15:30 AUTONOMOUS VEHICLE SYSTEM APPLICATIONS

CHAIR: GIULIO ERBERTO CANTARELLA (UNIVERSITY OF SALERNO, ITALY)

LOCATION: ZENE ROOM

13:30 **Jaâfar Berrada** (VEDECOM - LVMT, France)
Fabien Leurent (Université Paris-Est LVMT, France)
**MODELLING TRANSPORTATION SYSTEMS INVOLVING AUTONOMOUS VEHICLES:
A STATE OF THE ART**

14:00 **Lígia Conceição** (Department of Civil Engineering, Faculty of Engineering of the University of Porto, Portugal)
Gonçalo Correia (Department of Transport & Planning, Delft University of Technology,, Netherlands)
José Pedro Tavares (Department of Civil Engineering, Faculty of Engineering of the University of Porto,, Portugal)
**THE DEPLOYMENT OF AUTOMATED VEHICLES IN URBAN TRANSPORT SYSTEMS:
A METHODOLOGY TO DESIGN DEDICATED ZONES**

14:30 **Toru Seo** (Tokyo Institute of Technology, Japan)
Yasuo Asakura (Tokyo Institute of Technology, Japan)
**ENDOGENOUS MARKET PENETRATION DYNAMICS OF AUTOMATED AND
CONNECTED VEHICLES: TRANSPORT-ORIENTED MODEL AND ITS PARADOX**

15:00 **Wolfgang Kühn** (University of Applied Science Zwickau, Germany)
ROAD DATA AS PRIOR KNOWLEDGE FOR HIGHLY AUTOMATED DRIVING

3D

13:30-15:30 CHOICE MODELING

CHAIR: ANTONIO COMI

(DEPT. OF ENTERPRISE ENGINEERING - UNIVERSITY OF ROME TOR VERGATA, ITALY)

LOCATION: FORRÁS ROOM

13:30 **Weibo Li** (University College London, UK)
Maria Kamargianni (University College London, UK)
HYBRID CHOICE MODEL TO STUDY BIKE-SHARING CHOICE IN CHINA

14:00 **Ana Barberan** (Universidad Politecnica de Madrid, Spain)
João de Abreu E Silva (Instituto Superior Técnico, Portugal)
Andres Monzon (Transport Research Centre (TRANSyT), Spain)
FACTORS INFLUENCING BICYCLE USE: A BINARY CHOICE MODEL WITH PANEL DATA

14:30 Felipe González-Valdés (Pontificia Universidad Católica de Chile, Chile)
Sebastián Raveau (Pontificia Universidad Católica de Chile, Chile)
**MODELLING AIR TRAVEL BEHAVIOUR WITH HETEROGENEOUS CHOICE
MECHANISMS AT AN INDIVIDUAL LEVEL**

15:00 **János Juhász** (Budapest University of Technology and Economics, Hungary)
INFLUENCE OF DIFFERENT ROUTE-CHOICE DECISION MODES

3E

13:30-15:30 SHARED MOBILITY

CHAIR: CSABA CSISZÁR

(BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)

LOCATION: KÁVÉ ROOM

13:30 **Satomi Aiko** (Tokyo institute of Technology, Japan)
Ryo Itabashi (Tokyo institute of Technology, Japan)
Toru Seo (Tokyo institute of Technology, Japan)
Takahiko Kusakabe (Center for Spatial Information Science, the University of Tokyo, Japan)
Yasuo Asakura (Tokyo institute of Technology, Japan)
**SOCIAL BENEFIT OF OPTIMAL RIDE-SHARE TRANSPORT WITH GIVEN TRAVELERS'
ACTIVITY PATTERNS**

14:00 **András Munkácsy** (KTI Institute for Transport Sciences NLtd., Hungary)
Andres Monzon (Universidad Politecnica de Madrid, Spain)
**INTENTION-TO-USE AND ACTUAL USE OF BIKE-SHARING: THE CASE OF BICIMAD
(MADRID)**

14:30 **Leonardo Caggiani** (Technical University of Bari, Italy)
Rosalia Camporeale (Technical University of Bari, Italy)
Michele Ottomanelli (Technical University of Bari, Italy)
**A DYNAMIC CLUSTERING METHOD FOR RELOCATION PROCESS IN FREE-FLOATING
VEHICLE SHARING SYSTEMS**

15:00 **Miriam Enzi** (AIT Austrian Institute of Technology, Austria)
Benjamin Biesinger (AIT Austrian Institute of Technology, Austria)
Sebastian Knopp (AIT Austrian Institute of Technology, Austria)
Sophie Parragh (Johannes Kepler University Linz, Austria)
Matthias Prandtstetter (AIT Austrian Institute of Technology, Austria)
PLANNING SHARED CORPORATE MOBILITY SERVICES

15:30-16:00 COFFEE BREAK

4A

16:00-18:00 MULTI-MODAL TRANSPORTATION

CHAIR: MICHELE OTTOMANELLI (TECHNICAL UNIVERSITY OF BARI, ITALY)
LOCATION: TEA ROOM

- 16:00 Abdelfattah Idri (Ecole Nationale de Commerce et de Gestion de Casablanca (ENCG), Morocco)
Mariyem Oukarfi (Faculty of Sciences and Technology of Mohammedia (FSTM), Hassan 2 University of Casablanca, Morocco)
Azedine Boulmakoul (Faculty of Sciences and Technology of Mohammedia (FSTM), Hassan 2 University of Casablanca, Morocco)
Karine Zeitouni (Laboratoire DAVID, Université de Versailles Saint-Quentin-en-Yvelines, France)
A DISTRIBUTED APPROACH FOR SHORTEST PATH ALGORITHM IN DYNAMIC MULTIMODAL TRANSPORTATION NETWORKS
- 16:30 **Domokos Esztergár-Kiss** (Budapest University of Technology and Economics, Hungary)
Zoltán Rózsa (Budapest University of Technology and Economics, Hungary)
Tamás Tettamanti (Budapest University of Technology and Economics, Hungary)
COMPARATIVE ANALYSIS OF TEST CASES OF THE ACTIVITY CHAIN OPTIMIZATION METHOD
- 17:00 Frederic Rudolph (Wuppertal Institut, Germany)
Daniel Hörcher (Imperial College London, UK)
Tamás Mátrai (Budapest University of Technology and Economics, Hungary)
CONGESTION FROM A MULTIMODAL USER PERSPECTIVE
- 17:30 **Géza Katona** (Budapest University of Technology and Economics, Hungary)
Balázs Lénárt (Budapest University of Technology and Economics, Hungary)
János Phd. Juhász (Budapest University of Technology and Economics, Hungary)
TRAVEL HABIT BASED MULTIMODAL ROUTE PLANNING

4B

16:00-18:00 IMPACT ASSESSMENT AND EX-POST EVALUATION

CHAIR: FLORIAN HEINITZ (INSTITUTE VERKEHR UND RAUM, GERMANY)
LOCATION: GOBELIN ROOM

- 16:00 **Adrian Serrano-Hernandez** (Department of Statistics and OR. Public University of Navarre, Spain)
Pablo Alvarez (Department of Statistics and OR. Public University of Navarre, Spain)
Iosu Lerga (Department of Statistics and OR. Public University of Navarre, Spain)
Lorena Reyes-Rubiano (Department of Statistics and OR. Public University of Navarre, Spain)
Javier Faulin (Department of Statistics and OR. Public University of Navarre, Spain)
PRICING AND INTERNALIZING NOISE EXTERNALITIES IN ROAD FREIGHT TRANSPORTATION

- 16:30 **Federico Cavallaro** (IUAV University of Venice, Italy)
Olga Irranca Galati (IUAV University of Venice, Italy)
Silvio Nocera (IUAV University of Venice, Italy)
POLICY STRATEGIES FOR THE MITIGATION OF GHG EMISSIONS CAUSED BY THE MASS-TOURISM MOBILITY IN COASTAL AREAS
- 17:00 **Pavlos Tafidis** (University of Aveiro, Portugal)
Eloisa Macedo (University of Aveiro, Portugal)
Margarida C. Coelho (University of Aveiro, Portugal)
Mihai C. Niculescu (ITS Romania, Romania)
Andreea Voicu (ITS Romania, Romania)
Cecilia Barbu (Bucharest Metropolitan Transport Authority, Romania)
Nicoleta Jianu (Bucharest Metropolitan Transport Authority, Romania)
Francisco J. M. Pocostales (Extremadura Energy Agency, Spain)
Célia Laranjeira (Municipality of Agueda, Portugal)
Jorge Bandeira (University of Aveiro, Portugal)
EXPLORING THE IMPACT OF ICT ON URBAN MOBILITY IN HETEROGENIC REGIONS
- 17:30 Tibor Sipos (Budapest University of Technology and Economics, Hungary)
Florian Heinitz (Institute Verkehr und Raum, Germany)
Ádám Török (Budapest University of Technology and Economics, Hungary)
EFFECT OF INFRASTRUCTURE DEVELOPMENT ON ECONOMICAL ACTIVITY

4C

16:00-18:00 AUTONOMOUS VEHICLE SYSTEM APPLICATIONS

CHAIR: MARCO RINALDI (UNIVERSITY OF LUXEMBOURG, LUXEMBOURG)
LOCATION: ZENE ROOM

- 16:00 Zoltan Fazekas (MTA SZTAKI Institute for Computer Science and Control, Hungary)
Gabor Balazs (MTA SZTAKI Institute for Computer Science and Control, Hungary)
Laszlo Gerencser (MTA SZTAKI Institute for Computer Science and Control, Hungary)
Peter Gaspar (MTA SZTAKI Institute for Computer Science and Control, Hungary)
LOCATING ROADWORKS SITES VIA DETECTING CHANGE IN LATERAL POSITIONS OF TRAFFIC SIGNS MEASURED RELATIVE TO THE EGO-CAR
- 16:30 **Tamás Bécsi** (Budapest University of Technology and Economics, Hungary)
Szilárd Aradi (Budapest University of Technology and Economics, Hungary)
Árpád Fehér (Budapest University of Technology and Economics, Hungary)
György Gáldi (Budapest University of Technology and Economics, Hungary)
AUTONOMOUS VEHICLE FUNCTION EXPERIMENTS WITH LOW-COST ENVIRONMENT SENSORS
- 17:00 **Giulio Erberto Cantarella** (University of Salerno, Italy)
Angela Di Febbraro (University of Genova, Italy)
TRANSPORTATION SYSTEMS WITH AUTONOMOUS VEHICLES: A GENERAL MODELLING FRAMEWORK

- 17:30 Wei Zhang (KTH Royal Institute of Technology, Sweden)
Anders Karlström (KTH Royal Institute of Technology, Sweden)
 Marcus Sundberg (KTH Royal Institute of Technology, Sweden)
PLATOON COORDINATION WITH TIME WINDOWS: AN OPERATIONAL PERSPECTIVE

4D

16:00-18:00 SESSION 4D: URBAN MOBILITY

CHAIR: ANDRZEJ SZARATA (CRACOW UNIVERSITY OF TECHNOLOGY, POLAND)
 LOCATION: FORRÁS ROOM

- 16:00 **András Lakatos** (Budapest University of Technology and Economics, Hungary)
 Péter Mándoki (Budapest University of Technology and Economics, Hungary)
QUALITY EVALUATION OF THE REGIONAL PUBLIC TRANSPORTATION BY BUS AND TRAIN IN HUNGARY
- 16:30 **Melinda Matyas** (University College London, UK)
 Maria Kamargianni (University College London, UK)
MOBILITY AS A SERVICE PLANS: HOW MUCH DO WE PREFER FLEXIBILITY?
- 17:00 **Agostino Nuzzolo** (Dept. of Enterprise Engineering - University of Rome Tor Vergata, Italy)
 Antonio Comi (Dept. of Enterprise Engineering - University of Rome Tor Vergata, Italy)
A NORMATIVE OPTIMAL STRATEGY IN INTELLIGENT TRANSIT NETWORKS
- 17:30 Ghazal Zakeri (NTNU, Norway)
Nils Olsson (NTNU, Norway)
INVESTIGATION OF DELAYS AND PUNCTUALITY. THE CASE OF OSLO AREA

4E

16:00-18:00 ADVANCED MODELLING APPROACHES IN LOGISTICS

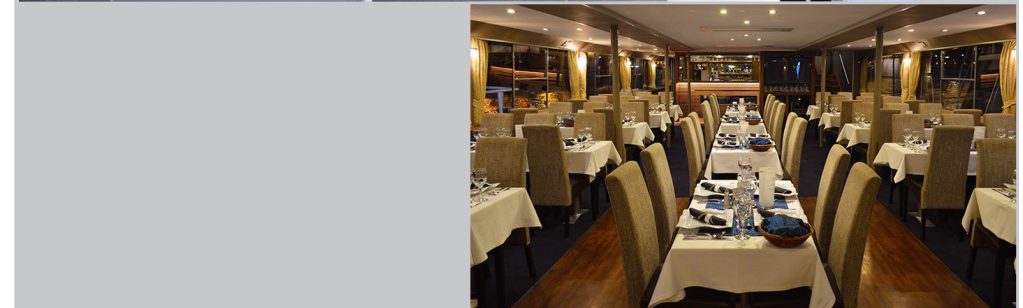
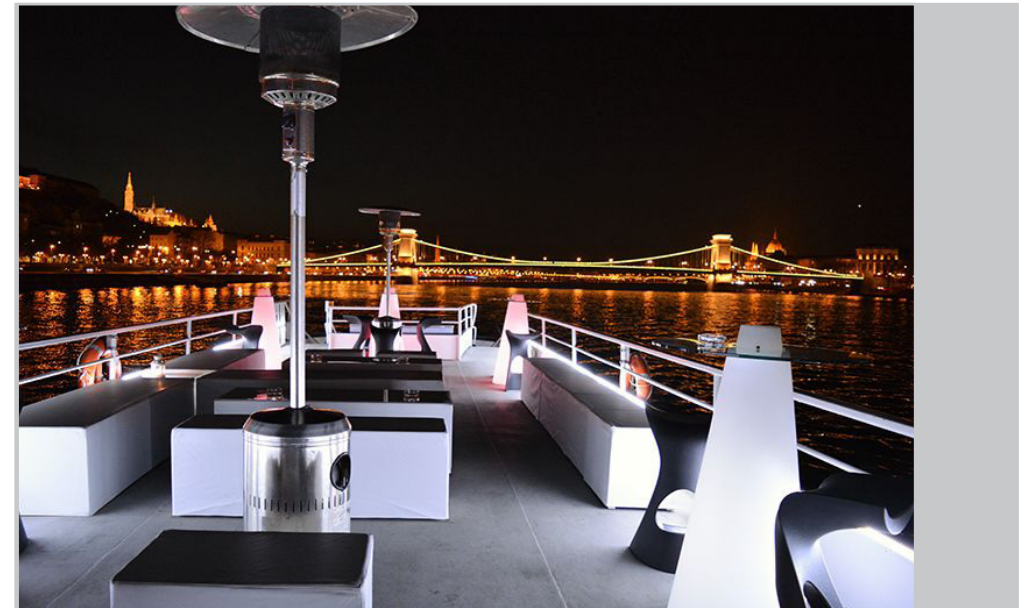
CHAIR: LÓRÁNT TAVASSZY (TU DELFT, NETHERLANDS)
 LOCATION: KÁVÉ ROOM

- 16:00 **Elżbieta Macioszek** (Silesian University of Technology, Poland)
 Grzegorz Sierpiński (Silesian University of Technology, Poland)
 Marcin Staniek (Silesian University of Technology, Poland)
ANALYSIS OF TRENDS IN DEVELOPMENT OF FREIGHT TRANSPORT LOGISTICS USING THE EXAMPLE OF SILESIA PROVINCE (POLAND) – A CASE STUDY
- 16:30 Michela Le Pira (Roma Tre University, Italy)
 Edoardo Marcucci (Roma Tre University and Molde University College, Italy)
Valerio Gatta (Roma Tre University, Italy)
ROLE-PLAYING GAMES AS A MEAN TO VALIDATE AGENT-BASED MODELS: AN APPLICATION TO STAKEHOLDER-DRIVEN URBAN FREIGHT TRANSPORT POLICY-MAKING

- 17:00 **Zlata Almetova** (South Ural State University (national research university), Russia)
 Vladimir Shepelev (Federal State Autonomous Educational Institution of Higher Education "South Ural State University (national research university)", Russia)
 Sergey Shepelev (Chelyabinsk State Agroengineering Academy, Russia)
OPTIMIZATION OF VOLUMES OF CARGO DELIVERIES IN TERMINAL COMPLEXES

- 17:30 **Vitalii Naumov** (Cracow University of Technology, Poland)
ESTIMATING THE VEHICLES' NUMBER FOR SERVICING A FLOW OF REQUESTS ON GOODS DELIVERY

19:00-22:00 CONFERENCE DINNER



09:00-10:00: PLENARY SESSION

LOCATION: Tea room

- 09:00 **Jonas Eliasson** (City of Stockholm Transportation Department, Sweden)
ACHIEVING SUPPORT FOR EFFICIENT SOLUTIONS? A FUNDAMENTAL TRANSPORT POLICY DILEMMA

10:00-10:30 COFFEE BREAK

6A

10:30-12:30

SIMULATION AND OPTIMIZATION OF TRANSPORTATION SYSTEMS

CHAIR: FRANCESCO VITI (UNIVERSITY OF LUXEMBOURG, LUXEMBOURG)

LOCATION: TEA ROOM

- 10:30 **Mario Marinelli** (Technical University of Bari, Italy)
Gianvito Palmisano (Technical University of Bari, Italy)
Vittorio Astarita (Technical University of Calabria, Italy)
Michele Ottomanelli (Technical University of Bari, Italy)
Mauro Dell'Orco (Technical University of Bari, Italy)
A FUZZY SET-BASED MODEL TO IDENTIFY THE CAR POSITION IN A ROAD LANE AT INTERSECTIONS BY SMARTPHONE GPS DATA
- 11:00 **Mirko Barthauer** (Technische Universität Braunschweig, Germany)
Bernhard Friedrich (Technische Universität Braunschweig, Germany)
CONNECTING MICROSCOPIC TRAFFIC SIMULATION AND EXTERNAL SIGNAL CONTROL
- 11:30 **Malte Aschermann** (Clausthal University of Technology, Institute of Informatics, Germany)
Bernhard Friedrich (Institute of Transportation and Urban Engineering, Germany)
Jörg P. Müller (TU Clausthal, Germany)
TOWARDS FAIR AND EFFICIENT TRAFFIC FLOW COORDINATION MECHANISMS FOR 2+1 ROADWAYS
- 12:00 **Behnam Bahmankhah** (Universidade de Aveiro, Portugal)
Margarida Isabel Cabrita Marques Coelho (Universidade de Aveiro, Portugal)
MULTI-OBJECTIVE OPTIMIZATION FOR SHORT DISTANCE TRIPS IN AN URBAN AREA: CHOOSING BETWEEN MOTOR VEHICLE OR CYCLING MOBILITY FOR A SAFE, SMOOTH AND LESS POLLUTED ROUTE

6B

10:30-12:30 ENERGY CONSUMPTION AND EMISSION MODELING

CHAIR: DIRK BRUCKMANN

(RHINE-WAAL UNIVERSITY OF APPLIED SCIENCES, GERMANY)

LOCATION: GOBELIN ROOM

- 10:30 **Paulo Fernandes** (University of Aveiro, Portugal)
Anésio Sousa (University of Aveiro, Portugal)
Margarida Coelho (University of Aveiro, Portugal)
João Teixeira (University of Aveiro, Portugal)
Claudio Guarnaccia (University of Salerno, Italy)
MULTI-CRITERIA ASSESSMENT OF CROSSWALK LOCATION ON A CORRIDOR WITH ROUNDABOUTS: INCORPORATING A NOISE RELATED CRITERION
- 11:00 **Paulo Fernandes** (University of Aveiro, Portugal)
Margarida Coelho (University of Aveiro, Portugal)
PEDESTRIAN AND CYCLISTS IMPACTS ON VEHICULAR CAPACITY AND EMISSIONS AT DIFFERENT TURBO-ROUNDABOUTS LAYOUTS
- 11:30 **Massimiliano Gastaldi** (University of Padova, Italy)
Claudio Meneguzzo (University of Padova, Italy)
Rosa Arboretti Giancristofaro (University of Padova, Italy)
Gregorio Gecchele (University of Padova, Italy)
Luca Della Lucia (University of Padova, Italy)
Maria Vittoria Prati (Istituto Motori of National Research Council (CNR), Italy)
ON-ROAD MEASUREMENT OF CO2 VEHICLE EMISSIONS UNDER ALTERNATIVE FORMS OF INTERSECTION CONTROL
- 12:00 **Andreas Braun** (University of Stuttgart, Germany)
Wolfgang Rid (University of Applied Sciences Erfurt, Germany)
ENERGY CONSUMPTION OF AN ELECTRIC AND AN INTERNAL COMBUSTION PASSENGER CAR. A COMPARATIVE CASE STUDY FROM REAL WORLD DATA ON THE ERFURT CIRCUIT IN GERMANY

6C

10:30-12:30 HEURISTIC METHODS IN OPTIMIZATION

CHAIR: JACEK ŻAK (POZNAN UNIVERSITY OF TECHNOLOGY, POLAND)

LOCATION: ZENE ROOM

- 10:30 **Pasquale Carotenuto** (National Research Council of Italy - Institute for Applied Mathematics „M. Picone”, Italy)
Stefano Giordani (Dip. Ingegneria dell'Impresa, University of Rome Tor Vergata, Italy)
Daniele Celani (Dip. Ingegneria dell'Impresa, University of Rome Tor Vergata, Italy)
PLANNING RETAIL DISTRIBUTION OF FUEL OILS
- 11:00 **Philipp Hungerlaender** (Alpen-Adria Universität Klagenfurt, Austria)
Andrea Rendl (Alpen-Adria Universität Klagenfurt, Austria)
Christian Truden (Alpen-Adria Universität Klagenfurt, Austria)
ON THE SLOT OPTIMIZATION PROBLEM IN ON-LINE VEHICLE ROUTING

- 11:30 Maria Giovanna Altieri (Technical University of Bari, Italy)
Mauro Dell'Orco (Technical University of Bari, Italy)
 Mario Marinelli (Technical University of Bari, Italy)
 Stefania Sinesi (Technical University of Bari, Italy)
EVIDENCE (DEMPSTER – SHAFER) THEORY-BASED EVALUATION OF DIFFERENT TRANSPORT MODES UNDER UNCERTAINTY: THEORETICAL BASIS AND FIRST FINDINGS
- 12:00 Matteo Ignaccolo (Dipartimento di Ingegneria Civile e Architettura (DICAR), University of Catania, Italy, Italy)
 Giuseppe Inturri (University of Catania, Italy)
 Mónica García-Melón (Polytechnic university of valencia, Spain)
 Nadia Giuffrida (University of Catania, Italy, Italy)
Michela Le Pira (University of Catania, Italy, Italy)
 Vincenza Torrisi (University of Catania, Italy)
COMBINING ANALYTIC HIERARCHY PROCESS (AHP) WITH ROLE-PLAYING GAMES FOR STAKEHOLDER ENGAGEMENT IN COMPLEX TRANSPORT DECISIONS
- 6D** 10:30-12:30 AUTOMATIC DATA COLLECTION METHODS
 CHAIR: HENK VAN ZUYLEN (DELFT UNIVERSITY OF TECHNOLOGY, NETHERLANDS)
 LOCATION: FORRÁS ROOM
- 10:30 Vivien Poto (Budapest University of Technology and Economics, Hungary)
 Arpad Somogyi (Budapest University of Technology and Economics, Hungary)
 Tamás Lovas (Budapest University of Technology and Economics, Hungary)
Arpad Barsi (Budapest University of Technology and Economics, Hungary)
LASER SCANNED POINT CLOUDS TO SUPPORT AUTONOMOUS VEHICLES
- 11:00 **Zoltan Fazekas** (MTA SZTAKI Institute for Computer Science and Control, Hungary)
 Gabor Balazs (MTA SZTAKI Institute for Computer Science and Control, Hungary)
 Laszlo Gerencser (MTA SZTAKI Institute for Computer Science and Control, Hungary)
 Péter Gáspár (MTA SZTAKI Institute for Computer Science and Control, Hungary)
INFERRING THE ACTUAL URBAN ROAD ENVIRONMENT FROM TRAFFIC SIGN DATA USING A MINIMUM DESCRIPTION LENGTH APPROACH
- 11:30 **Erik Jenelius** (KTH Royal Institute of Technology, Sweden)
 Ida Kristoffersson (Swedish National Road and Transport Research Institute (VTI), Sweden)
 Magnus Fransson (Sweco Society AB, Sweden)
VALIDATION OF TRAFFIC SIMULATION MODELS BASED ON THE MACROSCOPIC FUNDAMENTAL DIAGRAM
- 12:00 **María Eugenia López-Lambas** (UPM, Spain)
 Andrés Monzón (TRANSyT-UPM - Universidad Politecnica de Madrid, Spain)
 Gabriel Pieren (TRANSyT-UPM - Universidad Politecnica de Madrid, Spain)
ANALYSIS OF USING ELECTRIC CAR FOR URBAN MOBILITY, PERCEIVED SATISFACTION AMONG UNIVERSITY USERS.

- 6E** 10:30-12:30
MANAGEMENT OF INTELLIGENT RAIL TRANSPORT SYSTEMS
 CHAIR: JORGE PINHO DE SOUSA (FEUP - FACULTY OF ENGINEERING UNIVERSITY OF PORTO, PORTUGAL)
 LOCATION: KÁVÉ ROOM
- 10:30 **Jelena Aksentijevic** (OpenTrack Railway Technology GmbH, Austria)
 Andreas Schöbel (OpenTrack Railway Technology GmbH, Austria)
 Johann Blieberger (Vienna University of Technology, Austria)
 Stefan Mark (Austrian Institute of Technology, Austria)
OPTIMISATION OF RAIL TRAFFIC FLOW USING KRONECKER ALGEBRA DURING MAINTENANCE ON INFRASTRUCTURE
- 11:00 Angela Di Febbraro (DIME - University of Genova, Italy)
Davide Giglio (DIME - University of Genova, Italy)
 Nicola Sacco (DIME - University of Genova, Italy)
ON ANALYZING THE VULNERABILITIES OF A RAILWAY NETWORK WITH PETRI NETS
- 11:30 **Nuannuan Leng** (ETH Zurich, Switzerland)
 Ulrich Weidmann (ETH Zurich, Switzerland)
DISCUSSIONS OF THE RESCHEDULE PROCESS OF PASSENGERS, TRAIN OPERATORS AND INFRASTRUCTURE MANAGERS IN RAILWAY DISRUPTIONS
- 12:00 **Sara Gestrelus** (SICS Swedish ICT, Sweden)
 Martin Aronsson (SICS Swedish ICT, Sweden)
 Anders Peterson (Linköpings Universitet, Sweden)
A MILP-BASED HEURISTIC FOR A COMMERCIAL TRAIN TIMETABLING PROBLEM
- 12:30-13:30 LUNCH BREAK
- 7A** 13:30-15:30
SIMULATION AND OPTIMIZATION OF TRANSPORTATION SYSTEMS
 CHAIR: YUVAL HADAS (BAR ILAN UNIVERSITY, ISRAEL)
 LOCATION: TEA ROOM
- 13:30 **Zsuzsanna Bede** (Budapest University of Technology and Economics, Hungary)
 Balázs Németh (Institute for Computer Science and Control, Hungarian Academy of Sciences, Hungary)
 Péter Gáspár (Institute for Computer Science and Control, Hungarian Academy of Sciences, Hungary)
MODELING AND SIMULATION BASED ANALYSIS OF MULTI-CLASS TRAFFIC WITH LOOK-AHEAD CONTROLLED VEHICLES

14:00 Ariane Scheffer (University of Luxembourg, Luxembourg)
Guido Cantelmo (University of Luxembourg, Luxembourg)
 Francesco Viti (University of Luxembourg, Luxembourg)
GENERATING MACROSCOPIC, PURPOSE-DEPENDENT PRODUCTION FACTORS THROUGH MONTE CARLO SAMPLING TECHNIQUES

14:30 **Mohamed Abdel-Aty** (University of Central Florida, USA)
 Ling Wang (University of Central Florida, USA)
IMPLEMENTATION OF VARIABLE SPEED LIMITS TO IMPROVE SAFETY OF A CONGESTED EXPRESSWAY WEAVING SEGMENT IN MICROSIMULATION

15:00 Mariano Risso (PLADEMA-CONICET, Argentina)
 Neila Bhouri (IFSTTAR, France)
 Aldo Rubiales (PLADEMA-CICPBA, Argentina)
Pablo Andrés Lotito (PLADEMA-CONICET, Argentina)
A NONLINEAR ALGORITHM FOR TRAFFIC ESTIMATION WITH STATE CONSTRAINTS

7B

13:30-15:30 **ENERGY CONSUMPTION AND EMISSION MODELING**
 CHAIR: MARGARIDA COELHO (UNIVERSITY OF AVEIRO, PORTUGAL)
 LOCATION: GOBELIN ROOM

13:30 Fangfang Zheng (Southwest Jiaotong University, China)
 Jie Li (Hunan University and Delft University of Technology, China)
Henk Van Zuylen (Delft University of Technology, Netherlands)
 Chao Lu (Southwest Jiaotong University, China)
DRIVER SPECIFIC EMISSIONS AND FUEL CONSUMPTION

14:00 Giovanni Gualtieri (CNR-IBIMET, Italy)
 Francesca Camilli (CNR-IBIMET, Italy)
 Alice Cavaliere (DINFO, University of Firenze, Italy)
 Tiziana De Filippis (CNR-IBIMET, Italy)
 Filippo Di Gennaro (CNR-IBIMET, Italy)
 Sara Di Lonardo (CNR-IBIMET, Italy)
 Fabrizio Dini (Magenta s.r.l., Italy)
 Beniamino Gioli (CNR-IBIMET, Italy)
 Alessandro Matese (CNR-IBIMET, Italy)
 Walter Nunziati (Magenta s.r.l., Italy)
 Leandro Rocchi (CNR-IBIMET, Italy)
 Piero Toscano (CNR-IBIMET, Italy)
 Carolina Vagnoli (CNR-IBIMET, Italy)
Alessandro Zaldei (CNR-IBIMET, Italy)
AN INTEGRATED LOW-COST ROAD TRAFFIC AND AIR POLLUTION MONITORING PLATFORM TO ASSESS VEHICLES' AIR QUALITY IMPACT IN URBAN AREAS

14:30 **Szilárd Aradi** (Budapest University of Technology and Economics, Hungary)
 Tamás Bécsi (Budapest University of Technology and Economics, Hungary)
ENERGY SAVING POSSIBILITIES AT THE HUNGARIAN STATE RAILWAYS

15:00 Anuradha Jain (Partner for Projects and Studies, Switzerland)
Dirk Bruckmann (Rhine-Waal University of Applied Sciences, Germany)
A SUSTAINABLE APPROACH FOR THE PRIVATE WAGON LEASING COMPANIES IN EUROPE TO IMPROVE THE COMPETITIVENESS OF SINGLE WAGONLOAD TRANSPORT

7C

13:30-15:30 **HEURISTIC METHODS IN OPTIMIZATION**

CHAIR: Pasquale Carotenuto
 (National Research Council of Italy - Institute for Applied Mathematics „M. Picone“, Italy)
 LOCATION: ZENE ROOM

13:30 Pasquale Carotenuto (National Research Council of Italy - Institute for Applied Mathematics „M. Picone“, Italy)
Fabio Martis (National Research Council of Italy - Institute for Applied Mathematics „M. Picone“, Italy)
A DOUBLE DYNAMIC FAST ALGORITHM TO SOLVE MULTI VEHICLE DIAL A RIDE PROBLEM

14:00 **Grzegorz Sierpiński** (Silesian University of Technology, Faculty of Transport, Poland)
 Marcin Staniek (Silesian University of Technology, Faculty of Transport, Poland)
HEURISTIC APPROACH IN A MULTIMODAL TRAVEL PLANNER TO SUPPORT LOCAL AUTHORITIES IN URBAN TRAFFIC MANAGEMENT

14:30 Grzegorz Filcek (Wrocław University of Science and Technology, Poland)
Maciej Hojda (Wrocław University of Science and Technology, Poland)
 Jacek Żak (Poznań University of Technology, Poland)
A HEURISTIC ALGORITHM FOR SOLVING A MULTIPLE CRITERIA CARPOOLING OPTIMIZATION (MCCO) PROBLEM

15:00 **Marco Rinaldi** (University of Luxembourg, Luxembourg)
 Francesco Viti (University of Luxembourg, Luxembourg)
 Chris Tampère (KU Leuven, Belgium)
A GLOBAL OPTIMIZATION HEURISTIC FOR THE DECOMPOSED STATIC ANTICIPATORY NETWORK TRAFFIC CONTROL PROBLEM

7D

13:30-15:30 **AUTOMATIC DATA COLLECTION METHODS**
 CHAIR: MARÍA EUGENIA LÓPEZ-LAMBAS (UPM, SPAIN)
 LOCATION: FORRÁS ROOM

13:30 **Gourab Sil** (IIT Bombay, India)
 Avijit Maji (IIT Bombay, India)
VIDEO BASED DATA COLLECTION PROCESS FOR GEOMETRIC DESIGN CONSISTENCY EVALUATION OF FOUR-LANE MEDIAN DIVIDED HORIZONTAL CURVES

14:00 **Joana Hora** (FEUP, Portugal)
Teresa Galvao (FEUP, Portugal)
Ana Camanho (University of Porto, Portugal)
Thiago Sobral (FEUP, Portugal)
ESTIMATION OF ORIGIN-DESTINATION MATRICES IN URBAN TRANSPORTATION SYSTEMS BASED ON ENTRY-ONLY AUTOMATIC FARE COLLECTION DATA

14:30 **Jie Li** (Hunan University, China)
Henk Van Zuylen (Delft University of Technology, Netherlands)
Fangfang Zheng (Southwest Jiaotong University, China)
NETWORK STATE INFORMATION FROM MIXED TRAFFIC DATA

15:00 **Tamás Soltész** (Budapest University of Technology and Economics, Hungary)
Attila Aba (Budapest University of Technology and Economics, Hungary)
Miklós Gábor Bánfi (Budapest University of Technology and Economics, Hungary)
Miklós Kózel (Budapest University of Technology and Economics, Hungary)
PFS METHOD FOR PEDESTRIAN ORIGIN-DESTINATION SURVEYS OF ENCLOSED AREAS

7E

13:30-15:30

MANAGEMENT OF INTELLIGENT RAIL TRANSPORT SYSTEMS

CHAIR: MIKLÓS GÁBOR BÁNFI
(BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)
LOCATION: KÁVÉ ROOM

13:30 **Xiaoyan Xie** (Ecole des Ponts ParisTech, France)
Fabien Leurent (Ecole des Ponts ParisTech, France)
COMPARISON OF PASSENGER WALKING SPEED DISTRIBUTION MODELS IN MASS TRANSIT STATIONS

14:00 **Victoria Svedberg** (SICS Swedish ICT, Sweden)
Martin Aronsson (SICS Swedish ICT, Sweden)
Martin Joborn (SICS Swedish ICT, Sweden)
Jan Lundgren (Linköping University, Sweden)
DYNAMIC PRICING OF RAILWAY TIMETABLES

14:30 **Bachar Kabalan** (LVMT-ENPC, France)
Fabien Leurent (LVMT-ENPC, France)
Zoi Christoforou (LVMT-ENPC, France)
Marin Dubroca-Voisin (SNCF-LVMT-ENPC, France)
FROM TRAFFIC MONITORING TO CROWD MANAGEMENT IN RAILWAY STATIONS

15:00 **Fabien Leurent** (Ecole des Ponts ParisTech, France)
Xiaoyan Xie (Ecole des Ponts ParisTech, France)
ON PASSENGER REPOSITIONING ALONG STATION PLATFORM DURING TRAIN WAITING

15:30-16:00 COFFEE BREAK

8A

16:00-18:00

SIMULATION AND OPTIMIZATION OF TRANSPORTATION SYSTEMS

CHAIR: MAURO DELL'ORCO (TECHNICAL UNIVERSITY OF BARI, ITALY)
LOCATION: TEA ROOM

16:00 **Xavier Boulet** (SystemX, France)
Mahdi Zargayouna (Université Paris Est, Ifsttar, France, France)
Fabien Leurent (Ecole des ponts Paristech, France)
Bachar Kabalan (Ecole des Ponts Paristech, France)
Feirouz Ksontini (SystemX, France)
A DYNAMIC MULTI-AGENT ARCHITECTURE FOR MOBILITY SIMULATION IN A TRAIN STATION

16:30 **Xiao Liang** (Delft University of Technology, Netherlands)
Gonçalo Correia (Delft University of Technology, Netherlands)
Bart van Arem (Delft University of Technology, Netherlands)
AN OPTIMIZATION MODEL FOR VEHICLE ROUTING OF AUTOMATED TAXI TRIPS WITH DYNAMIC TRAVEL TIMES

17:00 **Milan Lovric** (University of Southampton, UK)
Simon Blainey (University of Southampton, UK)
John Preston (University of Southampton, UK)
A CONCEPTUAL DESIGN FOR A NATIONAL TRANSPORT MODEL WITH CROSS-SECTORAL INTERDEPENDENCIES

17:30 **Yuval Hadas** (Bar Ilan University, Israel)
Oren Nahum (Bar-Ilán University, Israel)
Riccardo Rossi (University of Padova, Italy)
Massimiliano Gastaldi (University of Padova, Italy)
STOCHASTIC MULTI-OBJECTIVE EVACUATION MODEL UNDER MANAGED AND UNMANAGED POLICIES

8B

16:00-18:00 SMART CITIES AND SMART MOBILITY

CHAIR: GONCALO HOMEM DE ALMEIDA RODRIGEZ CORREIA
(DELFT UNIVERSITY OF TECHNOLOGY, NETHERLANDS)
LOCATION: GOBELIN ROOM

16:00 **Maria Xylia** (KTH Royal Institute of Technology, Sweden)
Sylvain Leduc (International Institute for Applied Systems Analysis (IIASA), Austria)
Piera Patrizio (International Institute for Applied Systems Analysis (IIASA), Austria)
Semida Silveira (KTH Royal Institute of Technology, Sweden)
Florian Kraxner (International Institute for Applied Systems Analysis (IIASA), Austria)
A DYNAMIC OPTIMIZATION MODEL FOR ELECTRIC BUS CHARGING INFRASTRUCTURE

16:30 **Bálint Csonka** (Budapest University of Technology and Economics, Hungary)
Csaba Csiszár (Budapest University of Technology and Economics, Hungary)
DETERMINATION OF CHARGING INFRASTRUCTURE LOCATIONS FOR ELECTRIC VEHICLES

17:00 Katarzyna Nosal (Cracow University of Technology, Poland)
Andrzej Szarata (Cracow University of Technology, Poland)
Urszula Duda-Wiertel (Cracow University of Technology, Poland)
Łukasz Franek (City of Cracow, Poland)
THE IMPACT OF THE CAR RESTRICTIONS IMPLEMENTED IN THE CITY CENTER ON THE PUBLIC SPACE QUALITY

17:30 **Federico Malucelli** (Politecnico di Milano, Italy)
Maddalena Nonato (University of Ferrara, Italy)
Emanuele Tresoldi (Politecnico di Milano, Italy)
OPTIMIZATION BASED PLANNING OF PEDIBUS LINES: AN ARC BASED APPROACH

8C

16:00-18:00 AUTONOMOUS VEHICLE SYSTEM APPLICATIONS

CHAIR: TAMÁS BÉCSI
(BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)
LOCATION: ZENE ROOM

16:00 **Ferenc Hegedüs** (Robert Bosch Hungary, Hungary)
Tamás Bécsi (Budapest University of Technology and Economics, Hungary)
Szilárd Aradi (Budapest University of Technology and Economics, Hungary)
DYNAMICALLY FEASIBLE TRAJECTORY PLANNING FOR ROAD VEHICLES IN TERMS OF SENSITIVITY AND ROBUSTNESS

16:30 **Sven-Eric Molzahn** (Daimler AG, Germany)
Hubert Rehborn (Daimler AG, Germany)
Micha Koller (Daimler AG, Germany)
JAMTAIL WARNINGS BASED ON VEHICLE PROBE DATA

17:00 Cesare Bartolini (Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg, Luxembourg)
Tamás Tettamanti (Budapest University of Technology and Economics, Hungary)
István Varga (Budapest University of Technology and Economics, Hungary)
CRITICAL FEATURES OF AUTONOMOUS ROAD TRANSPORT FROM THE PERSPECTIVE OF TECHNOLOGICAL REGULATION AND LAW

17:30 **Azamat Zarkeshev** (Budapest University of Technology and Economics, Hungary)
Csaba Csiszár (Budapest University of Technology and Economics, Hungary)
DEMAND-CAPACITY COORDINATION METHOD IN AUTONOMOUS PUBLIC TRANSPORTATION

8D

16:00-18:00 LAND USE AND TRANSPORT INTERACTIONS

CHAIR: JOAO DE ABREU E SILVA (INSTITUTO SUPERIOR TÉCNICO, PORTUGAL)
LOCATION: FORRÁS ROOM

16:00 **Nadia Giuffrida** (University of Catania, Italy)
Matteo Ignaccolo (Dipartimento di Ingegneria Civile e Architettura (DICAR), University of Catania, Italy, Italy)
Giuseppe Inturri (University of Catania, Italy)
Yodan Rofè (Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Israel)
Giovanni Calabrò (University of Catania, Italy)
INVESTIGATING THE CORRELATION BETWEEN TRANSPORTATION SOCIAL NEED AND ACCESSIBILITY: THE CASE OF CATANIA

16:30 **Biao Yin** (LVMT- Ecole des Ponts ParisTech, IFSTTAR, UPEM, France)
Liu Liu (LVMT- Ecole des Ponts ParisTech, IFSTTAR, UPEM, France)
Nicolas Coulombel (LVMT- Ecole des Ponts ParisTech, IFSTTAR, UPEM, France)
Vincent Viguié (CIRED- Centre International de Recherche sur l'Environnement et le Développement, France)
EVALUATION OF RIDESHARING IMPACTS USING AN INTEGRATED TRANSPORT LAND-USE MODEL: A CASE STUDY FOR THE PARIS REGION

17:00 **Dávid Földes** (Budapest University of Technology and Economics, Hungary)
Csaba Csiszár (Budapest University of Technology and Economics, Hungary)
ASSESSMENT METHODS FOR INDIVIDUAL VALUE OF LOCATION

17:30 **João de Abreu E Silva** (Instituto Superior Técnico, Portugal)
Patricia Melo (The James Hutton Institute, UK)
THE EFFECTS OF HOME BASED TELEWORK ON HOUSEHOLDS' TOTAL TRAVEL. A PATH ANALYSIS APPROACH OF BRITISH HOUSEHOLDS

8E

16:00-18:00 TRAVEL TIME RELIABILITY AND WIDER ECONOMIC BENEFITS

CHAIR: TAMÁS MÁTRAI
(BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)
LOCATION: KÁVÉ ROOM

16:00 **Jaime Soza-Parra** (Pontificia Universidad Católica de Chile, Chile)
Sebastián Raveau (Pontificia Universidad Católica de Chile, Chile)
Juan Carlos Muñoz (Pontificia Universidad Católica de Chile, Chile)
CHARACTERIZING THE DIFFERENCES ON PUBLIC TRANSPORT TRAVEL TIME RELIABILITY BETWEEN TRAVELLERS AND OPERATORS

16:30 **Carl-William Palmqvist** (Lund University, Sweden)
Lena Hiselius (Lund University, Sweden)
Nils Olsson (Norwegian University of Science and Technology, Norway)
PUNCTUALITY PROBLEMS FROM THE PERSPECTIVE OF TIMETABLE PLANNERS

- 17:00 Vincenza Torrisi (University of Catania, Italy)
Matteo Ignaccolo (Dipartimento di Ingegneria Civile e Architettura (DICAR), University of Catania, Italy, Italy)
Giuseppe Inturri (University of Catania, Italy)
ESTIMATING TRAVEL TIME RELIABILITY IN URBAN AREAS THROUGH A DYNAMIC SIMULATION MODEL
- 17:30 Abderrahman Ait Ali (KTH Royal Institute of Technology, Sweden)
Jonas Eliasson (KTH Royal Institute of Technology, Sweden)
Jennifer Warg (KTH Royal Institute of Technology, Sweden)
MEASURING THE SOCIO-ECONOMIC BENEFITS OF TRAIN TIMETABLES: APPLICATION TO STOCKHOLM'S COMMUTER TRAIN SERVICE

20:00-23:00 GALA DINNER



09:00-10:00 PLENARY SESSION
LOCATION: TEA ROOM

- 09:00 **Francesco Viti** (University of Luxembourg, Luxembourg)
UNDERSTANDING DAILY DEMAND FLOWS IN THE ERA OF BIG DATA

10:00-10:30 COFFEE BREAK

- 10A** — **10:30-12:30 DYNAMIC NETWORK MODELING AND OPTIMIZATION**
CHAIR: LÍDIA MONTERO (UNIVERSITAT POLITÈCNICA DE CATALUNYA, SPAIN)
LOCATION: TEA ROOM

- 10:30 **Guido Gentile** (University of Rome La Sapienza, Italy)
TRANSIT LINK TRANSMISSION MODEL
- 11:00 **Alexis Poulhès** (ENPC-LVMT, France)
Jaâfar Berrada (ENPC-LVMT, France)
USER ASSIGNMENT IN A SMART VEHICLES' NETWORK: DYNAMIC MODELLING AS AN AGENT-BASED MODEL
- 11:30 Xavier Ros-Roca (Universitat Politècnica de Catalunya, Spain)
Lídia Montero (Universitat Politècnica de Catalunya, Spain)
Jaume Barceló (Universitat Politècnica de Catalunya, Spain)
NOTES ON THE USE OF SIMULATION-OPTIMIZATION TECHNIQUES IN TRAFFIC SIMULATION
- 12:00 **Ghyzlane Cherradi** (Faculty of Sciences and Technology of Mohammedia (FSTM), Hassan II University of Casablanca, Morocco)
Adil El Bouziri (Faculty of Sciences and Technology of Mohammedia (FSTM), Hassan II University of Casablanca, Morocco)
Azedine Boulmakoul (Faculty of Sciences and Technology of Mohammedia (FSTM), Hassan II University of Casablanca, Morocco)
Karine Zeitouni (Université de Versailles Saint-Quentin-en-Yvelines, France)
REAL TIME MICROSERVICES BASED ENVIRONMENTAL SENSORS SYSTEM FOR HAZMAT TRANSPORTATION NETWORKS MONITORING
- 10B** — **10:30-12:30 TRANSPORT ECONOMICS AND FINANCING**
CHAIR: DANIEL HÖRCHER (IMPERIAL COLLEGE LONDON, UK)
LOCATION: GOBELIN ROOM
- 10:30 **Müge Özgenel** (BOTEK Bosphorus Technical Consulting Corp., Turkey)
Gürkan Günay (Doğuş University, Turkey)
CONGESTION PRICING IMPLEMENTATION IN TAKSIM ZONE: A STATED PREFERENCE STUDY

- 11:00 **Daniel Hörcher** (Imperial College London, UK)
Daniel Graham (Imperial College London, UK)
THE ECONOMIC ACCOUNT OF TRAVEL PASSES IN PUBLIC TRANSPORT
- 11:30 **Juste Raimbault** (UMR CNRS 8504 Géographie-cités, France)
Antonin Bergeaud (Department of Economics, London School of Economics, UK)
THE COST OF TRANSPORTATION : SPATIAL ANALYSIS OF FUEL PRICES IN THE US
- 12:00 **Pierre Graftieaux** (World Bank, Australia)
DAKAR TOLL ROAD: MOVING PEOPLE TO HELP PEOPLE MOVE

10C

10:30-12:30

CONTROL AND MANAGEMENT OF TRANSPORTATION SYSTEMS

CHAIR: TAMÁS TETTAMANTI

(BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)

LOCATION: ZENE ROOM

- 10:30 Livia Mannini (Roma Tre University, Department of Engineering, Italy)
Ernesto Cipriani (Roma Tre University, Department of Engineering, Italy)
Umberto Crisalli (Tor Vergata University of Rome, Department of Enterprise Engineering, Italy)
Andrea Gemma (Roma Tre University, Department of Engineering, Italy)
ON-STREET PARKING SEARCH TIME ESTIMATION USING FCD DATA
- 11:00 Tamás Luspai (Institute for Computer Science and Control, Hungary)
Alfréd Csikós (Institute for Computer Science and Control, Hungary)
Tamás Péni (Institute for Computer Science and Control, Hungary)
István Varga (Budapest University of Technology and Economics, Hungary)
Balázs Kulcsár (Department of Signals and Systems, Chalmers University of Technology, Sweden)
RAMP METERING FOR FLOW MAXIMISATION AND EMISSION REDUCTION – A SET-BASED MULTI-OBJECTIVE DESIGN APPROACH
- 11:30 Tamás Tettamanti (Budapest University of Technology and Economics, Hungary)
Arash Mohammadi (Institute for Intelligent Systems Research and Innovation, Deakin University, Australia)
Houshyar Asadi (Institute for Intelligent Systems Research and Innovation, Deakin University, Australia)
István Varga (Budapest University of Technology and Economics, Hungary)
A TWO-LEVEL URBAN TRAFFIC CONTROL FOR AUTONOMOUS VEHICLES TO IMPROVE NETWORK-WIDE PERFORMANCE
- 12:00 **Nikolaos Bekiaris-Liberis** (Technical University of Crete, Greece)
Claudio Roncoli (Aalto University, Finland)
Markos Papageorgiou (Technical University of Crete, Greece)
TRAFFIC STATE ESTIMATION PER LANE IN HIGHWAYS WITH CONNECTED VEHICLES

10D

10:30-12:30 HUMAN FACTORS AND TRAVEL BEHAVIOUR

CHAIR: GABRIELLA MAZZULLA (UNIVERSITY OF CALABRIA, ITALY)

LOCATION: FORRÁS ROOM

- 10:30 **Michael Olitsky** (Gdalia Olitsky Engineering LTD, Israel)
Yoav Lerman (Tecnion - Israel Institute of Technology, Israel)
Erel Avineri (Afeka Center for Infrastructure, Transportation and Logistics, Israel)
ANALYSIS OF STATED PREFERENCES FOR ACCESSIBLE SERVICES AND COMMERCE IN A WALKABLE DISTANCE FROM HOME
- 11:00 **Marta Faria** (Instituto Superior Técnico, Portugal)
Patrícia Baptista (Instituto Superior Técnico, Portugal)
Tiago Farias (Instituto Superior Técnico, Portugal)
IDENTIFYING DRIVING BEHAVIOUR PATTERNS AND ITS IMPACTS IN ENERGY EFFICIENCY
- 11:30 **Bharat Kumar Pathivada** (Indian Institute of Technology (IIT) Bombay, India)
Vedagiri Perumal (Indian Institute of Technology (IIT) Bombay, India)
MODELING DRIVER BEHAVIOUR IN DILEMMA ZONE UNDER MIXED TRAFFIC CONDITIONS
- 12:00 Laura Eboli (University of Calabria, Italy)
Gabriella Mazzulla (University of Calabria, Italy)
Giuseppe Pungillo (University of Calabria, Italy)
HOW DRIVERS' CHARACTERISTICS CAN AFFECT DRIVING STYLE

10E

10:30-12:30

TRANSPORTATION PLANNING AND TRAFFIC ENGINEERING

CHAIR: PAOLO DELLE SITE (UNIVERSITY NICCOLÒ CUSANO, ITALY)

LOCATION: KÁVÉ ROOM

- 10:30 **Yasar Vitosoglu** (Dumlupinar University, Faculty of Engineering, Department of Civil Engineering, Turkey)
H. Canan Gungor (Necmettin Erbakan University, Seydisehir Vocational School, Department of Civil Defense and Firefighting, Turkey)
Polat Yaliniz (Dumlupinar University, Faculty of Engineering, Department of Civil Engineering, Turkey)
OBTAINING THE INTERCITY BUS TRAVEL MATRIX IN TURKEY AND ANALYSING IT IN GIS ENVIRONMENT
- 11:00 **Antonio Mauttone** (Universidad de la República, Uruguay)
Gonzalo Mercadante (Universidad de la República, Uruguay)
María José Rabaza (Universidad de la República, Uruguay)
Fernanda Toledo (Universidad de la República, Uruguay)
BICYCLE NETWORK DESIGN: MODEL AND SOLUTION ALGORITHM

11:30 **Federico Pascucci** (Technische Universität Braunschweig, Germany)
 Sebastian Vogt (Technische Universität Braunschweig, Germany)
 Bernhard Friedrich (Technische Universität Braunschweig, Germany)
MEASURING THE QUALITY OF TRAFFIC FLOW ON URBAN STREETS WITH HIGH PEDESTRIAN CROSSING DEMAND

12:00 Sonu Mathew (Sardar Vallabhbhai National Institute of Technology, India)
Ashish Dhamaniya (Sardar Vallabhbhai National Institute of Technology, India)
 Shriniwas Arkatkar (Sardar Vallabhbhai National Institute of Technology, India)
 Gaurang Joshi (Sardar Vallabhbhai National Institute of Technology, India)
ROUNDABOUT CAPACITY IN HETEROGENOUS TRAFFIC CONDITION: MODIFICATION OF HCM EQUATION AND CALIBRATION

12:30-13:30 LUNCH BREAK

11A — **13:30-15:30 DYNAMIC NETWORK MODELING AND OPTIMIZATION**
 CHAIR: JÁNOS TÓTH
 (BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)
 LOCATION: TEA ROOM

13:30 **Márton Tamás Horváth** (Budapest University of Technology and Economics, Hungary)
 Tamás Mátrai (Budapest University of Technology and Economics, Hungary)
 János Tóth (Budapest University of Technology and Economics, Hungary)
ROUTE PLANNING METHODOLOGY WITH FOUR-STEP MODEL AND DYNAMIC ASSIGNMENTS

14:00 **Paolo Delle Site** (University Niccolò Cusano, Italy)
FIXED POINT STATES OF DAY-TO-DAY ASSIGNMENT PROCESSES WITH STATE-DEPENDENT ROUTE CHOICE

14:30 **Bojan Kostic** (Sapienza University of Rome, Italy)
 Lorenzo Meschini (PTV SISTeMA, Italy)
 Guido Gentile (Sapienza University of Rome, Italy)
CALIBRATION OF THE DEMAND STRUCTURE FOR DYNAMIC TRAFFIC ASSIGNMENT USING FLOW AND SPEED DATA: EXPLOITING THE ADVANTAGE OF DISTRIBUTED COMPUTING IN DERIVATIVE-FREE OPTIMIZATION ALGORITHMS

15:00 **Vincenza Torrisi** (University of Catania, Italy)
 Matteo Ignaccolo (Dipartimento di Ingegneria Civile e Architettura (DICAR), University of Catania, Italy, Italy)
 Giuseppe Inturri (University of Catania, Italy)
ANALYSIS OF ROAD URBAN TRANSPORT NETWORK CAPACITY THROUGH A DYNAMIC ASSIGNMENT MODEL

11B

13:30-15:30 BIG DATA IN TRANSPORTATION

CHAIR: UMBERTO CRISALLI
 (Department of Enterprise Engineering, Tor Vergata University of Rome, Italy)
 LOCATION: GOBELIN ROOM

13:30 **Mehmet Yildirimoglu** (University of Queensland, Australia)
 Jiwon Kim (University of Queensland, Australia)
IDENTIFICATION OF COMMUNITIES IN URBAN MOBILITY NETWORKS USING MULTI-LAYER GRAPHS OF NETWORK TRAFFIC

14:00 **Viktor Nagy** (Széchenyi István University, Hungary)
 Balázs Horváth (Széchenyi István University, Hungary)
 Richárd Horváth (Széchenyi István University, Hungary)
ZONE ESTIMATION IN PUBLIC TRANSPORT PLANNING WITH DATA MINING

14:30 **Menno Yap** (Delft University of Technology, Netherlands)
 Oded Cats (Delft University of Technology, Netherlands)
 Niels van Oort (Delft University of Technology, Netherlands)
 Serge Hoogendoorn (Delft University of Technology, Netherlands)
DATA-DRIVEN TRANSFER INFERENCE FOR PUBLIC TRANSPORT JOURNEYS DURING DISRUPTIONS

15:00 **Csaba Kelen** (Jacobs UK, UK)
 Pablo Vilarino (Jacobs UK, UK)
 Georgios Christou (Jacobs UK, UK)
ADVANCED DEMAND DATA COLLECTION TECHNOLOGIES FOR MULTI MODAL STRATEGIC MODELLING

11C

13:30-15:30 VEHICLE ROUTING AND ROUTE PLANNING

CHAIR: DOMOKOS ESZTERGÁR-KISS
 (BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)
 LOCATION: ZENE ROOM

13:30 Kristóf Bérczi (Dept. of Operations Research, Eötvös University of Sciences, Budapest, Hungary)
Alpár Jüttner (Dept. of Operations Research, Eötvös University of Sciences, Budapest, Hungary)
 Marco Laumanns (IBM Research, Rüschlikon, Switzerland, Switzerland)
 Jácint Szabó (IBM Research, Rüschlikon, Switzerland, Switzerland)
STOCHASTIC ROUTE PLANNING IN PUBLIC TRANSPORT

14:00 **Francisco Garrido-Valenzuela** (Pontificia Universidad Católica de Chile, Chile)
 Juan C. Herrera (Pontificia Universidad Católica de Chile, Chile)
 Sebastián Raveau (Pontificia Universidad Católica de Chile, Chile)
BAYESIAN ROUTE CHOICE INFERENCE USING BLUETOOTH TECHNOLOGY

14:30 **Patrick-Oliver Groß** (Technische Universität Braunschweig, Decision Support Group, Germany)
 Jan Fabian Ehmke (Europa-Universität Viadrina, Business Analytics Group, Germany)
 Inbal Haas (Leibniz Universität Hannover, Institute of Communications Technology, Germany)
 Dirk Christian Mattfeld (Technische Universität Braunschweig, Decision Support Group, Germany)
EVALUATION OF ALTERNATIVE PATHS FOR RELIABLE ROUTING IN CITY LOGISTICS

15:00 **Mareike Hedderich** (BMW AG, Germany)
 Ulrich Fastenrath (BMW AG, Germany)
 Gordon Isaac (BMW AG, Germany)
 Klaus Bogenberger (Munich University of the Federal Armed Forces, Germany)
ADAPTING THE A* ALGORITHM FOR PARK SPOT ROUTING

11D 13:30-15:30 **ROAD SAFETY AND HUMAN FACTORS**
 CHAIR: ROBERTA DI PACE
 (DIPARTIMENTO DI INGEGNERIA CIVILE, UNIVERSITÀ DEGLI STUDI DI SALERNO, ITALY)
 LOCATION: FORRÁS ROOM

13:30 **Mariana Vilaça** (University of Aveiro, Portugal)
 Margarida Coelho (University of Aveiro, Portugal)
STATISTICAL ANALYSIS OF THE OCCURRENCE AND SEVERITY OF CRASHES INVOLVING VULNERABLE ROAD USERS: PORTUGAL EXPERIENCE

14:00 **Francesca Russo** (Department of Civil, Construction and Environmental Engineering (DICEA) University Federico II of Naples, Italy)
 Roberta Di Pace (Dipartimento di Ingegneria Civile, Università degli Studi di Salerno, Italy)
 Gianluca Dell'Acqua (Department of Civil, Construction and Environmental Engineering (DICEA) University Federico II of Naples, Italy)
 Stefano de Luca (University of Salerno, Italy)
ESTIMATING AN INJURY CRASH RATE PREDICTION MODEL BASED ON SEVERITY LEVELS EVALUATION: THE CASE STUDY OF SINGLE-VEHICLE RUN-OFF-ROAD CRASHES ON RURAL CONTEXT

14:30 **Miroslav Vasilev** (NTNU, Norway)
 Kelly Pitera (NTNU, Norway)
 Thomas Jonsson (NTNU, Norway)
EVALUATION OF BICYCLE SHARROWS WITHIN THE NORWEGIAN CONTEXT

15:00 **Maen Ghadi** (Budapest University of Technology and Economics, Hungary)
 Arpad Torok (Budapest University of Technology and Economics, Hungary)
COMPARING DIFFERENT BLACK SPOT IDENTIFYING METHODS

11E 13:30-15:30 **AIR TRANSPORT OPERATIONS**
 CHAIR: OLJA ČOKORILO
 (UNIVERSITY OF BELGRADE, FACULTY OF TRANSPORT AND TRAFFIC ENGINEERING, SERBIA)
 LOCATION: KÁVÉ ROOM

13:30 Santiago García (Rey Juan Carlos University, Spain)
Luis Cadarso (Rey Juan Carlos University, Spain)
AIRLINE RE-FLEETING MANAGING REVENUES AND MAINTENANCE OPERATIONS

14:00 Leandro O. Silva (IME, Brazil)
Renata Albergaria M. Bandeira (IME, Brazil)
 Vania Campos (Instituto Militar de Engenharia, Brazil)
THE USE OF UAV AND GEOGRAPHIC INFORMATION SYSTEMS FOR FACILITY LOCATION IN A POS-DISASTER SCENARIO

14:30 **Caterina Malandri** (University of Bologna - DICAM, Italy)
 Luca Mantecchini (University of Bologna - DICAM, Italy)
 Maria Nadia Postorino (Mediterranea University of Reggio Calabria, Italy)
AIRPORT GROUND ACCESS RELIABILITY: RESILIENCE OF TRANSIT NETWORKS

15:00 **Erik Grunewald** (DLR German Aerospace Center, Germany)
 Franz Knabe (DLR German Aerospace Center, Germany)
 Florian Rudolph (DLR German Aerospace Center, Germany)
 Michael Schultz (DLR German Aerospace Center, Germany)
PRIORITY RULES AS A CONCEPT FOR THE USAGE OF SCARCE AIRPORT CAPACITY

15:30-16:00 **COFFEE BREAK**

12A 16:00-17:30 **LAND USE AND TRANSPORT INTERACTIONS**
 CHAIR: MARCOS SCHLICKMANN (FEUP, PORTUGAL)
 LOCATION: TEA ROOM

16:00 Badredine Boulmakoul (Aix-Marseille University, France)
 Lamia Karim (Hassan I University, Morocco)
Zineb Besri (Abdelmalek Essaâdi University, Morocco)
 Azedine Boulmakoul (Université Hassan II Mohammedia, Morocco)
 Ahmed Lbath (Computer Science Department, Laboratoire LIG, University Joseph Fourier, Grenoble, France, France)
COMBINATORIAL CONNECTIVITY'S AND SPECTRAL GRAPH ANALYTICS FOR URBAN PUBLIC TRANSPORTATION SYSTEM

16:30 **Marcos Schlickmann** (FEUP, Portugal)
 Luis Miguel Martinez (Instituto Superior Tecnico, Portugal)
 Jorge Pinho De Sousa (INESC Porto / FEUP, Portugal)
A TOOL FOR SUPPORTING THE DESIGN OF BRT AND LRT SERVICES

17:00 R Shanmathi Rekha (National Institute of Technology, India)
Shayesta Wajid (National Institute of Technology, India)
Nisha Radhakrishnan (National Institute of Technology, India)
Samson Mathew (National Institute of Technology, India)
SPATIAL ACCESSIBILITY ANALYSIS AND LOCATION-ALLOCATION OF HEALTHCARE SERVICE USING GEOSPATIAL TECHNIQUES

12B

16:00-17:30 ROAD TRANSPORT SERVICES

CHAIR: ANTONIO COUTO (FEUP, PORTUGAL)
LOCATION: GOBELIN ROOM

16:00 Sara Mozzoni (Technomobility srl, Italy)
Benedetto Barabino (Technomobility srl, Italy)
Roberto Murru (CTM SpA, Italy)
IDENTIFYING IRREGULARITY SOURCES BY AUTOMATED LOCATION VEHICLE DATA

16:30 **Marco Amorim** (FEUP, Portugal)
Sara Ferreira (Faculdade de Engenharia, Universidade Porto, Portugal)
Antonio Couto (FEUP, Portugal)
REACTIVE MODEL FOR AMBULANCE DISPATCHING USING REAL-TIME DATA

12C

16:00-17:30 CITY LOGISTICS

CHAIR: MICHELA LE PIRA (UNIVERSITY OF CATANIA, ITALY, ITALY)
LOCATION: ZENE ROOM

16:00 Andres Monzon (Transport Research Center, TRANSyT-UPM, Spain)
Andrea Alonso (Transport Research Center, TRANSyT-UPM, Spain)
Maria E. Lopez (Transport Research Center, TRANSyT-UPM, Spain)
JOINT ANALYSIS OF INTERMODAL LONG DISTANCE-LAST MILE TRIPS USING URBAN INTERCHANGES IN EU CITIES.

16:30 **Andrii Galkin** (O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine)
Viktor Dolia (O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine)
Constantin Dolia (O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine)
Nataliia Davidich (O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine)
THE ROLE OF CONSUMERS IN THE LOGISTICS SYSTEM

17:00 **Inbal Haas** (Leibniz Universität Hannover, Germany)
Bernhard Friedrich (Technische Universität Braunschweig, Germany)
DEVELOPING A MICRO-SIMULATION TOOL FOR AUTONOMOUS CONNECTED VEHICLE PLATOONS USED IN CITY LOGISTICS

12D

16:00-17:30 HUMAN FACTORS

CHAIR: TAMÁS SOLTÉSZ
(BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY)
LOCATION: FORRÁS ROOM

16:00 **Fabien Leurent** (ENPC-LVMT, France)
Cyril Pivano (ENPC-LVMT, France)
Alexis Poulhes (ENPC-LVMT, France)
ON PASSENGER TRAFFIC ALONG A TRANSIT LINE: A STOCHASTIC MODEL OF STATION WAITING AND IN-VEHICLE CROWDING UNDER DISTRIBUTED HEADWAYS

16:30 **Andreas Dypvik Landmark** (SINTEF Technology and Society, Norway)
Andreas Amdahl Seim (SINTEF Technology and Society, Norway)
Nils Olsson (NTNU, Norway)
VISUALISATION OF TRAIN PUNCTUALITY – ILLUSTRATIONS AND CASES

12E

16:00-17:30 TRANSPORT RELATED SERVICES

CHAIR: ERIK GRUNEWALD (DLR GERMAN AEROSPACE CENTER, GERMANY)
LOCATION: KÁVÉ ROOM

16:00 **José Carlos García García** (Universidad de Castilla-La Mancha, Spain)
Ricardo García Ródenas (Universidad de Castilla-La Mancha, Spain)
María Luz López García (Universidad de Castilla-La Mancha, Spain)
COMMERCIAL ACTIONS MANAGEMENT FOR RAILWAY COMPANIES

16:30 Olaf Milbredt (German Aerospace Center (DLR), Germany)
Andre Castro (Alma Design, Portugal)
Amir Ayazkhani (German Aerospace Center (DLR), Germany)
Thomas Christ (German Aerospace Center (DLR), Germany)
PASSENGER-CENTRIC AIRPORT MANAGEMENT VIA NEW TERMINAL DESIGN CONCEPTS

17:00 **Imen Dhief** (National school of computer science (ENSI), Tunisia)
Nour Houda Dougui (National school of computer science (ENSI), Tunisia)
Daniel Delahaye (Ecole Nationale d'Aviation Civile, France)
Nouredine Hamdi (INSAT, Tunisia)
CONFLICT RESOLUTION FOR NORTH ATLANTIC AIR TRAFFIC WITH SPEED REGULATION

13

17:30-18:00 CLOSING SESSION

LOCATION: TEA ROOM

17:30

Riccardo Rossi (University of Padova, Italy)

CLOSING REMARKS OF EWGT 2017

17:45

Inbal Haas (Braunschweig, Germany)

INTRODUCTION OF EWGT 2018 LOCATION



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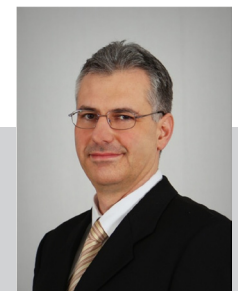
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This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the entire width of the page. There are no margins, text, or other markings present.[illegible]

