mobil.TUM 2015   Preliminary Program

1st Conference day – Tuesday, June 30, 2015

09:00   **Registration and Welcome Coffee**

09:30   **Opening session**

Welcome and Introduction	Fritz Busch, Technische Universität München
Welcome Address from Technische Universität München	Thomas F. Hofmann, Senior Vice President for Research and Innovation
Welcome Address from City of Munich	t.b.d.
Keynote	Hermann Meyer, Chief Executive Officer of ERTICO

10:45   **Coffee Break**

11:00   **Modelling**   **Session 1**

A robust framework for the estimation of dynamic OD trip matrices for reliable traffic management	J. Barcelo, J. Montero
Theoretical and practical capabilities of probabilistic data fusion with Bayesian networks	T. Neumann, M. Junghans
Optimization-based clustering of urban networks through snake segmentation	M. Saeedmanesh, N. Geroliminis
A GIS-based Cellular Automata Model for Planning Bicycle-Rental Network	M. Meng, J. Zhang, Y.D. Wong

12:30   **Lunch**

13:15   **Poster Presentations**

Optimal control of traffic lights and the value of arrival time information	R. Haijema, E. Hendrix, Juan, L.G. Casado
Impact of Vehicle-to-Infrastructure communication on traffic flow, safety, and environment	R. Neuhold, M. Fellendorf, M. Gerstenberger, J. Gessenhardt
Estimation of Origin-Destination Trip Matrices and Traffic Mode Share Based on Mobile Phone Data	W. Qu, H. Lu
Guidelines for Development of Functional Requirements and Evaluation of Adaptive Traffic Control Systems	M.N. Mladenovic, A. Stevanovic, I. Kosonen, D. Glavic
Preparing a Roadmap for Connected Vehicle/Cooperative System Deployment Scenarios: Case Study of the State of Oregon, USA	R.L. Bertini, H. Wang
A roadmap to realization: An integrated cross-client ITS for Luxemburg's public transport system	U. Martin, W. Kieslich, A. Barth
The Multi Modal Intelligent Traffic Signal System (MMITSS)	K.L. Head, Y. Feng, M. Zamanipour, S. Khoshmagham, S. Khosravi, B. Beak, S. Fatehi
Concept of an Intelligent Strategic Routing Scheme: In-Car Route Recommendation for Event Traffic	A. Alexopoulos, I. Stamatakis, S. Krause, S. Amini
Day-to-day dynamics for large-scale networks with perimeter control and route choice	M. Ramezani, M. Yildirimoglu, N. Geroliminis
Simulating SCATS in Singapore	X. Liu, R. Riemann, T. Schendzielorz, F. Busch
Toward Understanding the Benefits of Transit Signal Priority: Case Study Using High Resolution Transit and Traffic Signal Data	M. Figliozzi, W. Feng, R.L. Bertini
Adaptive Stage Skipping	X. Lin, A. Poschinger

14:00   **Urban Traffic Control**   **Session 2 A**

Using Vehicle Telematic to Improve Urban Traffic Control System	X. Liu, A. Rau, F. Busch
Enabling the cooperative traffic light: phases and timing prediction algorithms	M. Bottero, G. Alcaraz, G. Franco, M. Milli, A. Schmid
Evaluation of Adaptive Traffic Control through Performance Metrics based on High-Resolution Controller Data	A. Stevanovic, M. Zlatkovic, I. Dakic, C. Kergaye
Operational perspectives on eco-traffic signals and possible transition paths	J. Vreeswijk, J.M. Salanova Grau, R. Blokpoel, E. Mitsakis

14:00   **Traffic Data and Quality Management**   **Session 2 B**

Detector plausibility checking with and without data fusion	T. Riedel
Validation of advanced driver assistance systems by airborne optical imagery	F. Kurz, D. Rosenbaum, H. Runge, P. Reinartz
Estimation of traffic signal timing data and total delay for urban intersections based on low frequency floating car data	S. Axer, F. Pascucci, B. Friedrich
A Concept for Crowdsourcing of In-Vehicle Data to Improve Urban On-Street Parking	M. Margreiter, P. Mayer, F. Orfanou

15:30   **Coffee Break**

16:00   **Automated Vehicles**   **Session 3**

User attitudes towards and acceptance of automated vehicles – how prospective use cases make a difference	E. Fraedrich, R. Cyganski
Designing traffic management strategies for mixed urban traffic environments with both autonomous and non-autonomous vehicular traffic	N. Bailey, C. Osorio, A. Antunes
Analysing the capacity of autonomous transportation systems with microscopic traffic flow simulation	R. Neuhold, E. Lepka, M. Fellendorf, A. Kerschbaumer, M. Rudigier
Anthropocentric Development of Intersection Control Principles for Self-driving Vehicles under Considerations of Social Justice	M.N. Mladenovic, M. Abbas

mobil.TUM 2015   Preliminary Program

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17:30   **Optional: Guided Tour Deutsches Museum Verkehrszentrum, München**

19:00   **Conference Dinner**

2nd Conference day – Wednesday, July 1, 2015

09:00   **Morning Coffee**

09:30   **Multi-Modality**   **Session 4A**

The Potential of Intermodal Urban Mobility as a Source of Sustainability: Evidence from a GPS-based Evaluation in Stuttgart (Germany)	M. Schönau
Development of a Multimodal Transportation System Simulation Manual: from Theory to Practice	R.L. Bertini, B. Nevers, G. List
Context-Aware Self-Configuration of Flexible Combined Transportation Chains: Theoretical and Technological Foundations	A. Smirnov, N. Shilov, Y. Fedotov, K. Krotov
Integrating transport modes through an open B2B platform	S. Schaefer, H. Walischewski

09:30   **Simulation**   **Session 4B**

Computationally efficient calibration algorithms for large-scale traffic simulation models.	C. Osorio, G. Flötteröd, C. Zhang
Analysis of Shockwaves on Motorways and Possibilities of Damping by C2X Applications	N. Motamedidehkordi, T. Benz
Investigating the Impact of the Microscopic Traffic Simulation Model Calibration on the Surrogate Safety Assessment	J. So, B. Park, K. Choi
Multi-Driver Simulation – the link between driving simulation and traffic simulation	D. Mühlbacher

11:00   **Coffee Break**

11:30   **Traffic Management**   **Session 5A**

Trajectory Level Validation of Simulation Tools	V. Alexiadis, M. Xyntarakis
More than just parking! – Targeted parking as a chance for heavily trafficked road networks on the example of Europe's first pre-port parking	J. Rademacher, H.D. Grünfeld
DRIVERS – Implementation and Real World Scenarios of a Real-Time Decision Support System for Traffic Management	C. Kemper
Exploring the activity travel rescheduling behaviour under travel congestion information	Y. Ding, H. Lu, W. Kuang

11:30   **Energy and Sustainability**   **Session 5B**

Forecast of the Energy Consumption of BEV Based on Dynamic Traffic Information	L. Kessler, K. Bogenberger
On-line Energy-efficient Route Guidance in an Urban Road Network	P. Hemmerle, G. Hermanns, M. Koller, H. Rehborn, B.S. Kerner, M. Schreckenberg
The Contribution of ITS on sustainability and resilience in Alpine Regions	M. Mailer
On the relations of built environment, driving behavior and energy consumption in electric car driving	A. Braun, W. Rid

13:00   **Lunch**

14:00   **Evaluation**   **Session 6**

Impact Assessment and Extrapolation of Driver Assistance Systems - Comparison of Real and Abstracted Intersections	M. Wenzel, J. Gessenhardt
Comparative Performance Ranking of Arterial Sections to Prioritize Agency Resource Investments	C.M. Day, S.M. Remias, H. Li, D.K. Horton, D.M. Bullock
Development and testing of a predictive traffic safety evaluation tool for road traffic management and ITS impact assessment	I. Kaparias, L. Peng, A. Tsakarestos, N. Eden, P. Schmitz, S. Hoadley
Impact assessment of an adaptive cooperative decentralised traffic control system	L. Coconea, M. Bottero, A. Malano

15:30   **Coffee Break**

16:00   **Round Table**
"Cyber Physical Transport Systems – ITS on the move towards the internet of things"

16:45   **Closing Session**

Mobil.TUM Award 2015	
See you! Auf Wiedersehen!	Fritz Busch

17:00   **Farewell!**

mobil.TUM Post Conference Workshop „Adaptivity in Urban Traffic Control" – 2nd of July 2015

Objective

Adaptive control schemes to manage urban traffic are widely used across the world showing a big variety of functional and technical ways of implementation. Where transport science and industry are offering more and more solutions to cope with the different requirements stemming from the multi-modal transport market, cities face various challenges to use the offered technical potential in an optimal way – for the benefit of their urban traffic and transport situation. Among many success stories there are also failures, which need to be discussed. The workshop therefore aims to

- Show current state of the art solutions as well as scientific steps into next generation urban traffic control, provided by scientific research and transport industry
- Discuss experiences of cities with various types of adaptive signal control in their networks – from success to failure
- Exchange insights into the challenges of adaptive urban traffic control and identify barriers to unlock the claimed potential of provided systems.

Structure, Workshop Format

1. **Setting the Scene** (plenary session)
    Representatives from science, industry and authority will present their views and experiences in short statements, concluding with inputs for discussion.
    Interactive discussion with audience will complement the statements.

2. **Discussion in Focus Groups** (rotating breakout sessions)
    Key topics from the first session will be discussed in 4-5 focus groups, chaired by experts.
    (Participation to the focus groups is free and may vary during the session)

3. **The Way Forward** (plenary session)
    Findings from the second session are presented and discussed in the plenary.

Participants

Speakers
Representatives from SCIENCE, INDUSTRY, AUTHORITY. *(confirmed participation see below)*

Audience and Workshop Participants
Open to interested persons from mobil.TUM conference as well as separate participation

Workshop Language

Subject to participation: English and/or German

Duration

9:30 – 16:30 (including coffee and lunch breaks)

Venue

Verkehrszentrum Deutsches Museum, Am Bavariapark 5, 80339 München, Seminarraum, Halle 1

Publication

Findings of the workshop will be published in an international journal paper.

Speakers, Moderators *(participation inquired or confirmed at date of publication)*

Fritz Busch	Technical University of Munich
Kian Keong Chin	Land Transport Authority, Singapore
Martin Fellendorf	Technical University of Graz
Manuel Milli	Swarco, Austria
Larry Head	University of Arizona
Jörg Lange	City Authority, Berlin
Huapu Lu	Tsinghua University Beijing
Jürgen Mück	Siemens, Germany
Bernd Noll	City Authority, Kassel
Pavel Prybil	University of Prague
Aleksandar Stevanovic	Florida Atlantic University
Patrick Stieler	City Authority, Düsseldorf
Jaap Vreeswijk	Imtech, Netherlands
Florian Weichenmeier	PTV, Germany
Benjamin Maor	City of Tel Aviv
NN	City of Rome
NN	TRL and/or TfL, London