technologies, solutions and perspectives for intelligent transport systems
## 1st Conference day – Tuesday, June 30, 2015

### 09:00
**Registration and Welcome Coffee**

### 09:30
**Opening session**

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<th>Welcome and Introduction</th>
<th>Fritz Busch, Technische Universität München</th>
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<td>Welcome Address from Technische Universität München</td>
<td>Thomas F. Hofmann, Senior Vice President for Research and Innovation</td>
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<td>Welcome Address from City of Munich</td>
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<td>Keynote</td>
<td>Hermann Meyer, Chief Executive Officer of ERTICO</td>
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### 10:45
**Coffee Break**

### 11:00
**Modelling**

| 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. Hajema, 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. Gersenhard, W. Ou, H. Lu |
| Estimation of Origin-Destination Trip Matrices and Traffic Mode Share Based on Mobile Phone Data | 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 | U. Martin, W. Kieslich, A. Barth |
| The Multi Modal Intelligent Traffic Signal System (MMITSS) | A. Alexopoulos, I. Stamatakis, S. Krause, S. Amini |
| Concept of an Intelligent Strategic Routing Scheme: In-Car Route Recommendation for Event Traffic | M. Ramezani, M. Yildirimoglu, N. Geroliminis |
| Day-to-day dynamics for large-scale networks with perimeter control and route choice | X. Liu, R. Riemann, T. Schendzielorz, F. Busch |
| Simulating SCATS in Singapore | M. Figliozzi, W. Feng, R.L. Bertini |
| Toward Understanding the Benefits of Transit Signal Priority: Case Study Using High Resolution Transit and Traffic Signal Data | X. Lin, A. Poschinger |
| Adaptive Stage Skipping | |

### 14:00
**Urban Traffic Control**

| Using Vehicle Telematic to Improve Urban Traffic Control System | X. Liu, R. 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. Kengay |
| 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**

| 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**

| 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 |
| Analyzing 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 |
1st Conference day – Tuesday, June 30, 2015 – ctd.

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

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. Waliszewski

09:30  Simulation

Computationally efficient calibration algorithms for large-scale traffic simulation models.  C. Osorio, G. Flüttleröd, C. Zhang
Analysis of Shockwaves on Motorways and Possibilities of Damping by C2X Applications  N. Motamedidehkordi, T. Benz
Multi-Driver Simulation – the link between driving simulation and traffic simulation  D. Mühlbacher

11:00  Coffee Break

11:30  Traffic Management

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
Exploring the activity travel rescheduling behaviour under travel congestion information  Y. Ding, H. Lu, W. Kuang

11:30  Energy and Sustainability

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. Herrmanns, 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

Impact Assessment and Extrapolation of Driver Assistance Systems - Comparison of Real and Abstracted Intersections  M. Wenzel, J. Gessenhardt
Development and testing of a predictive traffic safety evaluation tool for road traffic management and ITS impact assessment  L. Coconeia, M. Bottero, A. Malano
Impact assessment of an adaptive cooperative decentralised traffic control system

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!
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
Gino Franco 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
NN 5T Traffic Management, Torino
NN TRL and/or TfL, London
mobil.TUM 2015 Registration Form

International Scientific Conference on Mobility and Transport

Please fill in this form and send it by fax to +49.89.289.22333 or by e-mail to mobil-tum2015@vt.bgu.tum.de or register online via www.mobil-tum.vt.bgu.tum.de

Herewith I register for the mobil.TUM 2015

International Scientific Conference on Mobility and Transport

mobil.TUM 2015 conference
June 30 & July 1, 2015
☐ Regular Fee (380 €) ☐ Student Fee (190 €) (please include your certificate of matriculation)

pre-conference course "Basics of ITS" by ITS-EduNet
June 28 & 29, 2015
☐ Regular Fee (400 €) ☐ ITS-EduNet Members and Students (200 €)

post-conference course "Adaptivity in Urban Traffic Control"
☐ July 2, 2015, Fee 100 €

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Terms of payment and cancellation policy:

Once we have received your registration you will obtain an invoice, which has to be paid no later than 10 days after receipt.

Should you be unable to attend a substitute delegate is always welcome at no extra charge. Alternatively we will make a prompt refund less a service charge of 20 % of the fee for cancellations in writing (letter or facsimile) no later than June 23, 2015. Thereafter we regret that no refund can be made.

I agree with the terms of payment and cancellation policy

Location, Date:
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Technologies, Solutions and Perspectives for ITS

Intelligent Transport Systems and Services (ITS) provide a wide variety of solutions to existing transport problems and to the ecological and societal challenges presented by an increasing demand for mobility. With growing capabilities of information and communication techniques, the participants of the mobility system are becoming increasingly connected. A future with high fidelity transport information in a seamlessly connected mobile world for all types of traveler draws ever nearer. In order to respond to the multifaceted character of these developments, science and practice within the mobility domain involve an increasingly broad range of different disciplines.

The mobil.TUM conference 2015 will therefore once again serve as an opportunity for international dialogue across disciplines on the latest challenges and achievements in ITS. The conference is organized by the Chair of Traffic Engineering and Control at the Institute for Transportation of TUM (Technische Universität München). It will explore the various aspects of Intelligent Transport Systems, focusing on the latest technologies and solutions and the perspectives for which they allow. The conference will consist of paper sessions, poster sessions and panel discussions.

mobil.TUM conference series

mobil.TUM is a conference of the Institute of Transportation at Technische Universität München.

Previous Conferences treated the following topics:

2008: Erreichbarkeit – Accessibility – Accessibilité
2009: ITS for Larger Cities
2011: Making Sustainable Mobilities
2012: Transportation Demand Management
2013: ITS for Connected Mobility
2014: Sustainable Mobility in Metropolitan Regions

mobil.TUM 2015 – Facts

Scientific Conference, June 30 & July 1, 2015

Venue
Alte Kongresshalle am Bavariapark
Theresienhöhe 15, D-80331 München, Germany

Fee 380 € incl. VAT (190 € for students and speakers)
• Entrance to 2-day conference and exhibition
• conference proceedings
• 2-day coffee breaks and lunch
• Conference dinner
• Guided tour Deutsches Museum Verkehrszentrum

Side Events (with extra fees)
• 1.5 days pre-conference course:
  “Basics of ITS” by ITS-EduNet
• 1 day post-conference workshop:
  “Adaptivity in Urban Traffic Control”

For registration and further information visit:

www.mobil-tum.vt.bgu.tum.de

Or contact us directly:
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The conference is supported by:

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