

International Lakeside Conference

Thursday and Friday | October 07 and 08 | 2010
Congress Center Villach | Austria
www.lakeside-conference.at

Data and Mobility 2010
Transforming information into intelligent traffic
and transportation services

Welcome to the Lakeside Conference 2010



Over the last few years, the local value of mobility and information in our society has grown tremendously. As the importance of Information and Communication Technologies (ICT) increases, we expect more changes in future mobility behaviour. This includes not only mobility behaviour for the single user, but also for the transportation of goods and infrastructure operators. It will also affect the regulation of resources and political decision-making. Both, data and mobility become more connected. To cope effectively with the anticipated changes, we must expand our focus and take current developments in both areas into account.

The topic of the Lakeside Conference 2010, **Data and Mobility – Transforming Information into Intelligent Traffic and Transportation Services**, was chosen to underline the importance of information and mobility in transport and to offer an opportunity to discuss and question current activities in this sector. We will consider intermodal concepts and deployments in particular, where data transfer plays a major role, as this could help to reduce the current lack of infrastructure capacity (especially on roads and at airports and seaports). Using modern technologies, traffic management could become more sustainable and efficient.

The organizers would like to thank all those involved, the authors, editors, scientific committee, organization team and sponsors for their enormous support, which was provided despite their existing heavy workloads. Their tireless efforts will make the conference an international event of high standing and quality.

On behalf of the organizers
Reinhard Pfliegl

6th October

Pre-Show evening event & ICT Award

Lakeside Science & Technology Park | Klagenfurt

17:00–21:00 pm Registration

LOCATION: Lakeside Science & Technology Park

17:30–18:30 pm ICT Award | IKT 2010

Informations- und Kommunikationstechnologien Kärnten

Awarding and Presentation of the best ICT projects that have been submitted to the ICT-Call 2010 of the Carinthian Economic Promotion Fund

Get Together

18:30–21:00 pm Hans Schönegger | CEO Lakeside Science & Technology Park
At this informal event, participants, presenters and organizers will casually exchange ideas and impressions. Early badge and conference bag pick-up will now take place as well.

Agenda 7th October

Lakeside Conference Data and Mobility 2010

Congress Centre Villach | Austria

08:30 am Registration

LOCATION: Gottfried von Einem Hall

MODERATION: Keith Jinks

**09:30 am Welcome Interview with the Hosts and Organizers
Exhibition Opening**

Hans Schönegger | CEO Lakeside Science & Technology Park
William C. Eacho, III | U.S. Ambassador to Austria
Reinhard Pfliegl | Managing Director of AustriaTech
Alois Schedl | ATTC-President

I. Plenary Session

The Need for Intelligent Services in Transport from a Political Point of View – Keynote Speakers

10:00 am ICT for Transport

Wolfgang Höfs | European Commission, DG Information Society and Media, Unit G.4

10:20 am

Martin Russ | Cabinet of the Federal Minister for Transport, Innovation and Technology

10:40 am

COFFEE BREAK

II. Plenary Session

Challenges and Requirements for Creating Intelligent Services – Keynote Speakers

11:00 am

Houston TranStar: Greater Houston Transportation and Emergency Management Center

John R. Whaley | Southeast Texas Transportation and Emergency Management Center, United States of America

11:30 am

TomTom Traffic Solutions – Manage Traffic the Easy Way

Theo Kamalski | Head of Patent Engineering and Regulatory Affairs TOM-TOM, Netherlands

12:00 am

Advanced Traffic Information: Challenges and Opportunities between Cost Constraints and Consumer Benefit

Hans-Hendrik Puvogel | General Manager INRIX Europe, Germany

12:30 pm

LUNCH BREAK



William C. Eacho



Wolfgang Höfs



John R. Whaley



Theo Kamalski



Hans-H. Puvogel



Andrew Nash



Christian Eder



Jakot Karrera



M. Spatzierer



Slavica Grosanic



Thorsten Cypra



R. Kloibhofer



Sheldon Drobot



Martin Rudigier

LOCATION: Foyer

MODERATION: Andrew Nash

13:30 pm **III. Meet the Exhibitor Session**
Introduction of the different Exhibitors

LOCATION: Gottfried von Einem Hall, North

MODERATION: Keith Jinks

14:00–15:30 pm **IV. 1 Session**
Intelligent Mobility Concepts

LINK – The öBB-System for Ensuring Connections

Christian Eder | öBB Postbus, Austria

Data and Connection Model as a Basis of a Trip Planner in complex Environment

Jakot Karrera | Transport Authority of Gipuzkoa, Spain

Re-thinking Urban Mobility Services and Operations

Oana Mitrea | Alpen-Adria-University Klagenfurt, Institut für Technik und Wissenschaftsforschung | IFZ, Austria

LOCATION: Gottfried von Einem Hall, South

MODERATION: Stefan Löffler

14:00–15:30 pm **IV. 2 Parallel Session**
Intelligent Weather Systems for Application in Traffic and Transport

METIS: Road Weather Monitoring and Presentation System

Tomas Pospisek | CROSS Zlin, Czech Republic

Improving Meteorological Information Required by Railway Operators through Weather Station Network Densification

Manfred Spatzierer | UBIMET, Austria

Christian Rachoy | öBB-Infrastruktur AG, Austria

Development within the Scope of the German Test Side for Road Weather Stations

Slavica Grosanic | Lehrstuhl für Verkehrstechnik – Technische Universität München, Germany

Maintenance Decision Support System (MDSS) ASFINAG Austria: Experience of a Comprehensive Winter Maintenance Management System

Thorsten Cypra | Boschung Mecatronic AG, Switzerland

Werner Seidl | ASFINAG Maut Service GmbH, Austria

15:30 pm **COFFEE BREAK**

LOCATION: Gottfried von Einem Hall, North

MODERATION: Keith Jinks

v. 1 Session
16:00–17:30 pm Cooperative Systems, Networks and Data Translators

**Innovative Wireless Sensor for Vehicle
on Board Cooperative Systems**

Reinhard Kloibhofer | AIT Austrian Institute
of Technology GmbH, Austria

Using Vehicles as Mobile Weather Platforms

Sheldon Drobot | National Center for Atmospheric Research,
United States of America

**COOPERS: Driver Acceptance Assessment of Cooperative
Services: Results from the Field Test in Austria**

Doris Bankosegger | High Tech Marketing, Austria

LOCATION: Gottfried von Einem Hall, South

MODERATION: Andrew Nash

v. 2 Parallel Session
16:00–17:30 pm Advanced Forecasts for Traffic Modelling and Prognoses

**Dealing with the Uncertainties in Forecasting
Adverse Weather**

Markus Kerschbaum | Austro Control, Austria

**Concepts for Modelling Drivers of Vehicles
Using Control Theory**

Martin Rudigier | Virtual Vehicle Research
and Test Center, Austria

**A Macroscopic and a Microscopic Model
for Measuring the Quality of Traffic Information**

Klaus Bogenberger | TRANSVER GmbH, Germany

17:30 pm BREAK

Gala Dinner
19:00–23:00 pm Venue: Holiday Inn, Room "Drau"

Agenda 8th October

Lakeside Conference Data and Mobility 2010

Congress Centre Villach | Austria

08:30 am Registration

LOCATION: Gottfried von Einem Hall, North

MODERATION: Keith Jinks

VI. 1 Session
**09:00–10:30 am Warning Applications and Services for
Dangerous Weather Situations**

**An all Weather Decision Support System
for Surface Transportation**

Sheldon Drobot | National Center for Atmospheric Research,
United States of America

**INCA-CE: Integrated Nowcasting System
for the Central European Area**

Ingo Meirolt-Mautner | Central Institute for Meteorology
and Geodynamics, Austria

**TMCPro: Information about Dangerous Road Conditions
caused by Weather**

Gero Schlomka | NAVTEQ – DDG Gesellschaft
für Verkehrsdaten mbH, Germany

**Documentation of Flood Damage on
Railway Infrastructure**

Andrew P. Moran | alpS-Zentrum für Naturgefahren-
und Risikomanagement, Austria

LOCATION: Gottfried von Einem Hall, South

MODERATION: Andrew Nash

VI. 2 Parallel Session
**09:00–10:30 am Innovative Data Sources for Intelligent Systems
and Services**

**ETC-Based Traffic Telematics: Utilizing Electronic Toll
Collection Systems as a Basis for Traffic Data Generation**

Thomas Stranner | Kapsch TrafficCom AG, Austria

**MySQL-Based Archiving of Traffic
and Environmental Data**

Christoph Maget | Autobahndirektion Südbayern, Germany

**Extraction of Visual and Acoustic Features of the Driver
for Monitoring Driver Ergonomics Applied to Extended
Driver Assistance Systems**

Hima Deepthi Vankayalapati | Alpen-Adria-University
Klagenfurt, Austria

Naturalistic Driving: A New Method of Data Collection

Martin Winkelbauer | kfv – Kuratorium für Verkehrssicherheit, Austria

10:30 am

COFFEE BREAK

LOCATION: Gottfried von Einem Hall, North

MODERATION: Keith Jinks

VII. 1 Session

10:45–12:00 am

Raising Awareness, Educational Measures and Tools for User Services

Road Weather Information Service in Finland:

The Impact of Error Probability on Service Benefits

Risto Öörni | VTT Technical Research Centre of Finland, Finland

How Motorcycle Collisions Depend on Weather

Martin Winkelbauer | kfv – Kuratorium für Verkehrssicherheit, Austria

Co-operative Communication System

for Safety and Traffic Efficiency

Fritz Kasslatter | Siemens AG Austria

LOCATION: Gottfried von Einem Hall, South

MODERATION: Andrew Nash

VII. 2 Parallel Session

10:45–12:00 am

Improved Data Quality, Verification and Liability

Data Quality Issues in Traffic Systems

Robert Tafner | Alpen-Adria-University Klagenfurt, Austria

Looking into Detection, Model Results and Message Quality

Thomas Epp | PTV Austria GmbH, Germany

Autonomous Multi-Sensor Vehicle Classification for Traffic Monitoring

Marcus E. Hennecke | EFKON AG, Austria

LOCATION: Holiday Inn, Room Drau

MODERATION: Stefan Löffler

VII. 3 Parallel Session

10:45–12:00 am

Improved Traffic Imaging

Enhancement of Weather Degenerated Traffic Images by using a CNN-UM based Approach

Christopher Schwarzlmüller | Alpen Adria University Klagenfurt, Austria

A Multimedia-Centric Quality Assurance System for Traffic Messages

Roland Tusch | Alpen Adria University Klagenfurt, Austria

Real-Time Contrast Enhancement for Colored Images through a Coupled Nonlinear Oscillatory Paradigm

Muhammad Ahsan Latif | Alpen Adria University Klagenfurt, Austria

12:00 am

LUNCH BREAK

LOCATION: Gallery Draublick

MODERATION: Andrew Nash

VIII. Meet the Author-Session

13:00–14:00 pm

Open Space for Featured Projects and their Authors ITS Vienna Region and the New Traffic Service AnachB.at

Hans Fiby | ITS Vienna Region, Austria

Video-Based Surveillance Systems in Public Transport

Fadi Al Machot | Forschungsgruppe Verkehrsinformatik, Austria

Cellular Neural Networks Based Time-Series Approximation for Real Time System Modeling-and-Identification and Behavior Forecast in Transportation

Jean Chamberlain Chedjou | Alpen-Adria-University Klagenfurt, Austria

An Ultra-fast and Adaptive Framework for FPGA-based Real-Time Machine Vision for Advanced Driver Assistance Systems: A CNN-based Processing Architecture

Alireza Fasih | Alpen-Adria-University Klagenfurt, Austria

New Generation of Non-Invasive Sensors for Road Surface Condition

Karl E. Schedler | micKS MSR GmbH, Germany

Decision Support System (DSS) for Road Weather Conditions

Jörgen Bogren | Klimator AB, Sweden



Sheldon Drobot



I. Meirold-Mautner



Gero Schломka



Thomas Stranner



Christoph Maget



M. Winkelbauer



Fritz Kasslatter



Marcus Hennecke



C. Schwarzmüller



M. A. Latif



Hans Fiby



Andreas Kuhn



Qian Huang



Helmut Ludwar



Herbert Pümpel



Petr Bureš

sTC-net: Subsidiary Traffic Control Network – A New Approach for “Intelligent” Traffic Management and Control

Andreas Kuhn | ANDATA Entwicklungstechnologie GmbH & Co KG, Austria

DSRC-based Vehicle Situation Awareness (VSA): An algorithm on Freeway

Qian Huang | Latrobe University, Victoria, Australia

IBM Deep Thunder – Local Area Precision Forecasting for Weather-Sensitive Business Operations

Helmut Ludwar | IBM Österreich, Austria

LOCATION: Gottfried von Einem Hall

MODERATION: Keith Jinks

IX. Session

14:00–14:40 pm

Need for Action? Where to Start?

Weather, Climate, its Variability and Change: Emerging Services to Mitigate Associated Risks for the Transport Sector

Herbert Pümpel | WMO – World Meteorological Organization, Schweiz

Intelligent Transport System Architecture: Different Approaches and Future Trends

Petr Bureš | Czech Technical University in Prague, Faculty of Transportation Sciences, Czech Republic

LOCATION: Gottfried von Einem Hall

MODERATION: Keith Jinks, Stefan Löffler, Andrew Nash

X. Summarizing Session and Chill Out

14:40 pm

Summarizing the Lakeside Conference 2010

Interviews with Delegates from the different Sessions
Summing up the Sessions Highlights
Reflecting on Results and Personal Impressions
Outlook on Future Trends

15:20 pm

Closing Statement

Invitation to the next Lakeside Conference

Reinhard Pfliegl | Managing Director of AustriaTech

15:30 pm – open

Chill out

Networking Party with local food and drink

END OF CONFERENCE

Registration

www.lakeside-conference.at

Please use our website to register

To register for the Lakeside Conference please use this link:
www.lakeside-conference.at

Room reservation

Book your room on our website too. Special rates for Lakeside Conference participants have been negotiated with two participating hotels located close to the conference venue.

For conference information contact us at

Lakeside Science & Technology Park GmbH
Lakeside B01
9020 Klagenfurt
Austria
Phone (+43-463) 22 88 22-0
conference@lakeside-scitec.com
www.lakeside-conference.at

Contact person

Roman Ulram

Book early!

Sign up by September 10, 2010,
and you only pay

- 600.00 EUR per person.

Registration fee from September 11, 2010
the normal price is

- 750.00 EUR per person.

All prices excluding 20 % VAT

Conference fee includes

- Participation in all sessions and presentations
- Conference bag, participants list and presentations documentation
- Access to the exhibition area and the Meet the Author Session
- Refreshments, coffee and lunch breaks
- Pre-Show evening event on Wednesday and shuttle bus
- Gala Dinner with music at Hotel Holiday Inn on Thursday evening
- All participants receive the publication "Data and Mobility – Transforming Information into Intelligent Traffic and Transportation Services, Proceedings of the Lakeside Conference 2010" published by Springer within the series "Advances in Intelligent and Soft Computing".

Cancellations

For cancellations until September 22, 2010, you will be charged 30 % of the registration fee, after this date you forfeit the entire fee.

Venue & Accommodation

Conference Venue

Congress Center Villach | www.ccv.at

The Lakeside Conference 2010 will take place in the modern halls of the Congress Center Villach, located directly on the river Drau. At www.ccv.at you can find out more about the fascinating venue Congress Center Villach, Europaplatz 1, 9500 Villach, Austria.

Conference Accommodation

Special rates for Lakeside Conference participants have been negotiated with two participating hotels located close to the conference venue. When reserving your room, please mention that you are part of the Lakeside Conference group.

Hotel Holiday Inn | www.holidayinn-villach.com

The Hotel Holiday Inn Villach has a direct connection to the Congress Center Villach.

Hotel Mosser | www.hotelmosser.at

The Hotel Mosser is only a few steps away from the Congress Center Villach, the station, the bus terminal and is also in the city centre.

You will find a map of the location and all travel directions on

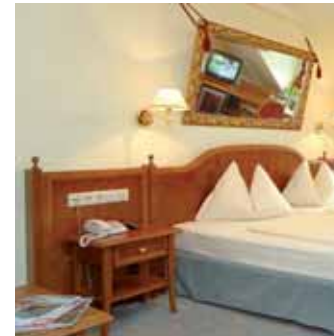
- www.lakeside-conference.at



Hotel Holiday Inn



Congress Center Villach



Hotel Mosser

General Information

Official language

The official language of the conference is English.

Arrival

You will find a detailed description of all travel directions and how to find the venue at the conference page:

- www.lakeside-conference.at

Parking area

A public parking garage is directly located under the Congress Center Villach.

Registration

Registration is required of all participants. You can register at the Pre-Show evening event or in the beginning of the conference at the registration desk.

Badges and identification

Participants will receive a name badge that also serves as the entrance pass to all conference activities, including Gala Dinner and Pre-Show evening event.

Coffee breaks

During session breaks, refreshments will be served free of charge to participants wearing a conference badge.

Lunch

Lunch will be served on October 7 and 8 in the restaurant of the Congress Center to participants wearing a conference badge.

Shuttle bus – Pre-Show evening event transfer

A free shuttle service will run from your hotel to the Pre-Show evening event and back.

Credit cards

All major credit cards, such as Visa, Euro | Mastercard, American Express are widely accepted in hotels, restaurants and shops.

Insurance

All participants are reminded that neither the organisation committee nor the Congress Center and the Hotels are liable for any losses, accidents, or damages to person or private property.

Participants and accompanying persons are requested to make their own arrangements in respect of health and travel insurance.

Smoking policy

Participants are requested to refrain from smoking in all parts of the conference venue.

For all questions please contact

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9020 Klagenfurt

Austria

Phone (+43-463) 22 88 22-0

conference@lakeside-scitec.com

Host and Organizer of the Lakeside Conference

The 2010 Lakeside Conference "Data and Mobility, Transforming Information into Intelligent Traffic and Transportation Services", is a co-operative venture of the ATTC – Austrian Traffic Telematics Cluster, AustriaTech – the Federal Agency for Technological Measures Ltd., the U.S. Commercial Service Austria and the Lakeside Science & Technology Park.



Lakeside Science & Technology Park (Host)

The Lakeside Science & Technology Park is a platform for co-operation between companies and university institutions in the field of information and communication technologies (ICT). It offers a place of interdisciplinary research and development, training, production and services. Every year, the Park management organizes an international conference, whose theme alternates between a special IT topic (Safety in Mobility, Intelligent Weather Information Systems and Services in Traffic and Transport, 2008) and a business topic (Knowledge Loves Company, Co-operation Strategies between Universities and Companies, 2009). The special IT topics have been organized jointly with the above partners.



AustriaTech

Federal Agency for Technological Measures Ltd.

AustriaTech – Federal Agency for Technological Measures Ltd. was set up in 2005 by the Austrian Ministry of Transport, Innovation and Technology (BMVIT). AustriaTech is opening up the optimum, non-profit-making benefits of telematics in the transport system and its aim is to stimulate the development of ITS ("Intelligent Transport Systems") in new areas of activity. Specific concerns are the development and deployment of suitable technologies to ensure efficient transport for the future, and – working alongside the infrastructure operators – the organisation of transport on an intermodal basis.



ATTC

Austrian Traffic Telematics Cluster

The Austrian Traffic Telematics Cluster (ATTC), which consists of 16 renowned Austrian companies, has set the goal of working both on the further development as well as the practice-oriented implementation of new technologies in the area of telematics systems for traffic management.



U.S. Commercial Service Austria

The U.S. Commercial Service Austria at the American Embassy offers assistance to exporters and importers of U.S. goods and services to Austria. Its trade specialists can help you identify trade opportunities, find trading and technology partners, launch your company, obtain market research, and work with you to achieve your business goals.

Patronage & Organization Team

Patronage

Hans Schönegger
CEO Lakeside Science & Technology Park
Reinhard Pfliegl
CEO AustriaTech
Alois Schedl
ATTC President
Christopher Quinlivan
Counselor for Commercial Affairs,
American Embassy in Austria

Conference Organization Team

Conference Chair

Maria Mack
Lakeside Science & Technology Park

Organization Chair

Roman Ulram
Lakeside Science & Technology Park

Call for Papers and Programme Chair

Julia Düh
AustriaTech

Conference Committee

Marta Haustein
U.S. Commercial Service, American Embassy in Austria
Helmut-Klaus Schimany
ATTC
Hartwig Hufnagl
ATTC

“I am still raving about the Lakeside Conference to my colleagues and anyone else who will listen! That was a great experience, and I hope others found it as worthwhile as I did.”

Paul Pisano

U.S. Federal Highway Administration

Arlington | Vermont | USA



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ERDF | European Regional Development Fund