

# **ITS-EduNet**

## **Short course**

### **Challenges and Opportunities of Vehicle-to-X-Communication**

**14 & 15 May 2009**

**Munich & Ingolstadt, Germany**

## **Preliminary Course Program**

## **Organisational Details**

*ITS-EduNet*

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## Preliminary Course Program:

<b>14/05/09</b>	<b>Munich</b>
08:30	Delegates arrive
09:00 – 10:30	<b>Introduction and overview</b> <i>Welcome and course concept</i> <i>Prof. Fritz Busch, Chairman of ITS-EduNet</i> <i>Dr. Markus Zanner, TUM Institute for Advanced Study</i> <i>ITS-EduNet – the ITS training &amp; education network</i> <i>FH-Prof. Emil Simeonov, Vice-Chairman of ITS-EduNet</i> <i>Terminology of V2X, worldwide survey (Europe, USA, Asia)</i> <i>Prof. Fritz Busch</i> <i>Prof. Robert Bertini</i>
10:30	Coffee break
<b>Block 1: Basic principles</b>	
11:00 – 12:10	<b>V2X technology</b> <i>Information transfer technologies, communication standards, protocols, system architectures</i> <i>Prof. Hannes Hartenstein</i>
12:10 –12:30	<b>Solving multi path wireless access</b> <i>A solution for adaptive multi-path communication</i> <i>Zdenek Lokaj</i>
12:30	Lunch
<b>Block 2: Application fields</b>	
13:30 – 14:30	<b>V2X extra urban</b> <i>V2X on motorways &amp; federal roads, local hazard warning, intelligent motorway, virtual congestion warning</i> <i>(Projects Invent, Aktiv, React, Com2React,...)</i> <i>Dr. Klaus Bogenberger</i>
14:30 – 15:30	<b>V2X inner urban</b> <i>Adaptive network control, the intelligent intersection (project SAFESPOT)</i> <i>Tobias Schendzielorz</i>
15:30	Coffee break
16:00 – 17:00	<b>V2X in public transport</b> <i>Operational control systems, bus priority, the iBus system in London</i> <i>Dr. Nick Hounsell</i> <i>Andreas Weisskopf</i>
19:30	<b>Course Dinner</b> <i>Gaststätte „Harlachinger Einkehr“</i>

<b>15/05/09</b>	<b>Ingolstadt</b>
<b>Block 3: Implementation and deployment</b>	
10:00 – 10:45	<b>Assessing the effects on road safety of V2X</b> <i>How far can the use of vehicle to vehicle communication increase road safety?</i> <i>Ass. Prof. Bruno Dalla Chiara</i>
10:45 – 12:00	<b>Implementation of V2X-applications</b> <i>Costs / financing, legal problems, operation models, standardisation, political direction (EU)</i> <i>Prof. Vito Mauro</i>
12:00 – 13:00	<b>V2X at AUDI AG</b> <i>Presentation of AUDI AG and their approach on V2X, Travolution project</i> <i>Cornelius Menig, Audi AG</i>
13:00 – 14:15	<b>Lunch</b>
<b>Block 4: Site visit</b>	
14:15 – 15:15	<b>Travolution Field Test</b> <i>Communication between car and traffic signal system (a system to inform the driver)</i>
15:15	Coffee break
15:40 – 16:00	Delegates Feedback
<b>16:00</b>	<b>Delegates Depart</b>

### Speakers:

- Prof. Fritz Busch, Technische Universität München, Germany
- Prof. Robert Bertini, Portland State University, United States
- Prof. Vito Mauro, Politecnico di Torino, Italy
- Prof. Hannes Hartenstein, Universität Karlsruhe, Germany
- Zdenek Lokaj, Czech Technical University, Czech Republic
- Ass. Prof. Bruno Dalla Chiara, Politecnico di Torino, Italy
- Dr. Klaus Bogenberger, Transver GmbH, Germany
- Dr. Nick Hounsell, University of Southampton, United Kingdom
- Andreas Weisskopf, Weisskopf Engineering, Switzerland
- Cornelius Menig, AUDI AG Ingolstadt, Germany
- Tobias Schendzielorz, Technische Universität München, Germany