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# Intelligent Transport Systems – From Research and Development to the Market Uptake

First International Conference, INTSYS 2017  
Hyvinkää, Finland, November 29–30, 2017  
Proceedings

*Editors*

Tatiana Kováčiková  
University of Žilina  
Žilina  
Slovakia

Ľuboš Buzna  
University of Žilina  
Žilina  
Slovakia

Ghadir Pourhashem  
University of Žilina  
Žilina  
Slovakia

Giuseppe Lugano  
University of Žilina  
Žilina  
Slovakia

Yannick Cornet  
University of Žilina  
Žilina  
Slovakia

Nathalie Lugano  
University of Žilina  
Žilina  
Slovakia

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# Preface

We are delighted to introduce the proceedings of INTSYS 2017 – “Intelligent Transport Systems – From Research and Development to the Market Uptake,” which was held in Hyvinkää, Finland, during November 29–30, 2017, as a co-located scientific event of the SmartCity 360° summit organized by the European Alliance for Innovation (EAI).

The objective of the conference was to twofold:

- To enable researchers in ITS to share their achievements and findings in different areas of intelligent transport systems
- To bring together the relevant ITS stakeholders and to address the following questions: What role do research and end users have in developing ITS solutions? How do we maximize the use of research outcomes by industry?

The conference gathered 29 participants from 11 European countries and four non-EU countries, covering diverse stakeholders notably from academia, public and private sectors, European institutions and associations.

The technical program of INTSYS 2017 consisted of presentations of 29 accepted full papers out of 47 submitted. Of these, 31 successfully passed the single-blind peer review process. The presentations of accepted papers were organized in six thematic sessions:

- Planning for Sustainable Transport and Smart Cities
- Intelligent Rail Transport Systems
- Transport Modelling and Simulation and Big Data Application
- ITS Safety and Security
- Cooperative ITS and Autonomous Driving
- Intelligent Traffic Management

INTSYS 2017 boasted four outstanding keynote speakers. We were fortunate to have a presentation from Professor Emeritus Dr. Lorna Uden (UK) on the design of an effective intelligent transport system which meets the needs and values of different users. Mr. Martin Russ, Managing Director of AustriaTech, introduced an inspiring initiative – the Austrian Urban Mobility Labs (UML). Dr. Floridea Di Ciommo from cambiaMO in Spain demonstrated how relevant it is to combine ITS data analysis with people’s needs, preferences, and choices. Last, but not least, Dr. Uwe Reiter from PTV in Germany guided the participants through tools, techniques, and methods for future planning of transport systems and services.

In the Industrial Track, we were very happy to have four excellent speakers: Mr. Jarkko Jaakkola from MaaS Global in Finland; Dr. Martin Nemčík from the Škoda

company in the Czech Republic; Mr. Harri Paloheimo from CoReorient in Finland; and Ms. Piia Karjalainen, Senior Manager from MaaS Alliance/ERTICO, ITS Europe. It was clear that several innovative and potentially disruptive trends are occurring in the transport and mobility sector. Apart from technological and business innovations such as the ones presented by Škoda or the MaaS Global offer, one of the topics that emerged concerns the controversial developments of the “sharing economy,” which is still unregulated. This may limit the diffusion of innovative transport services and mobility solutions. In this respect, the CoReorient approach underlined the importance of the co-creation of value with the involvement of the public sector, private companies, civil society, and local communities.

INTSYS 2017 was possible thanks to the commitment of the team of the ERAciate project (Enhancing Research and innovAtion dimension of the University of Žilina in intelligent transport systems, <http://www.erachair.uniza.sk>), which is funded by the European Union’s Seventh Framework Programme under Grant Agreement 621386.

In organizing INTSYS 2017, we were delighted to work with a dedicated team whose efforts ensured a strong two-day program. We are grateful to the Technical Program Committee (TPC) chair, Dr. Ghadir Pourhashem, and the TPC co-chair, Dr. Giuseppe Lugano from the ERA Chair project ERAciate at the University of Žilina, Slovakia. Our sincere thanks go to Prof. Imrich Chlamtac, the Steering Committee chair and the president of the European Alliance for Innovation, Prof. Milan Dado, ERAciate coordinator, and Prof. Adrian Boukalov, the chair of the Smart City 360° Summit for their support and collaboration in making the program of both events appealing. INTSYS 2017 was possible thanks to the strong collaboration of the organizing team. We thank the Web chair, Samia Ait Zaoucheová, the publicity and social media chairs, Dr. Veronika Šrámová and Dr. Anna Závodská, all from the University of Žilina, and M.A. Nathalie Lugano from the ERA Chair project ERAciate at the University of Žilina. Thanks go also to the conference manager Lenka Bílska from European Alliance for Innovation for the support in organizing INTSYS 2017 and Lenka Kalusova from the University of Žilina for her support during the conference. Finally, yet importantly, our sincere thanks go to the sponsors, notably two companies — Orange Slovakia, a.s. and Siemens, s.r.o., Slovakia — and one non-profit organization, Research Institute of Posts and Telecommunications (VUS), Slovakia. Thanks to the support from the aforementioned sponsors, ERAciate covered the registration fee for five young researchers.

We strongly believe that INTSYS 2017 provided a good platform for researchers, policy makers, and industrial partners not only to discuss technological aspects of ITS, but also to identify and address some barriers such as privacy and liability concerns, uncertain demand, lack of legislation, etc., that limit the full rollout of ITS implementation.



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