



ERAdiate Newsletter 1 | December 2016



Dear interested readers,

We are pleased to present the inaugural edition of the newsletter of the ERAdiate project. Besides giving an overview of the latest project activities, the newsletter aims at providing highlights on ITS developments at UNIZA and in the Žilina region, as well as information on relevant European policy development. We hope you will find our newsletter both useful and informative.

Looking ahead to 2017, this issue offers a glimpse of the activities to come and comments on those which have concluded. 2016 has been a successful year for the ERAdiate project. Thanks to the expansion of staff resources, a lot of work could be started and the first projects have been selected for funding, one of which is presented in this newsletter. A number of projects handed in to national and international funding schemes are still under evaluation. Publications and conference contributions as well as expert reviews are part of the regular work in the scientific community.

After the successful international conference "ITS – a Tool or a Toy" on 22-23 November 2016 in Žilina, we are now preparing another international conference, to be held in Vienna on 16-18 May 2017, on the deployment of ITS and uptake of research results by the market.

Slovakia is represented for the first time in CEN TC278, the European ITS Standardisation Organisation, by our team member Prof. Tatiana Kováčiková. The ERAciate team is also active in CEN TC278 WG17 on Urban ITS. This corresponds effectively to our activities in designing urban ITS and using Key Performance Indicators for the assessment of improvements.

The cooperation with UNIZA staff has been intensified. We are glad to closely work with the Žilina Self Governing Region, a reliable and capable partner for projects and applications. We have brought international experts to UNIZA to bring in expertise in research and project applications, such as eGovernment, and to start the preparation of joint projects.

In the upcoming year we will organise a Summer School on research funding hosted by UNIZA in Žilina in September. We expect to be able to offer also some international educational programmes in the next academic year 2017-2018.

As the year winds down, I would like to offer my sincere thanks to our supporters, partners, and colleagues for their support during the year.

We wish you all the best for 2017 and hope for luck, health, and common success.

With seasonal greetings,

Karl Ernst Ambrosch
ERA Chair Holder

News from ERAciate team

ERAciate team looking for part-time staff

As ERAciate prepares for upcoming calls for proposals and improves UNIZA's readiness in selected trend-setting topics within sustainable mobility, the project team is looking for part-time employees to start as soon as possible. The minimal requirement is a Bachelor degree in a transport related field. The duties are to carry out investigations about available methods as well as data and information. The wider context is the capability to benchmark the strengths and weaknesses of the mobility system on a municipal and regional level. For further information, please contact [Dietrich Leihns](#).

Insights from the International Conference Intelligent Transport Systems: a Tool or a Toy?

The international conference “Intelligent Transport Systems: a Tool or a Toy?” – *Research and innovation opportunities and challenges for autonomous driving and new transport models*, held in Žilina on 22-23 November 2016 under the auspices of the Slovak Presidency of the Council of the European Union, gathered **125 participants from 22 European countries**, covering diverse stakeholders notably from academia, public and private sectors, European institutions and associations. This event aimed at bringing special attention to the role of research organisations in providing evidence to the policy makers for shaping the right ecosystem in ITS, and to the role of the industry, and in particular SMEs, in delivering innovative, sustainable and interoperable solutions. Particular attention was given to two important pillars of future mobility: **Autonomous driving** and **Mobility as a Service (MaaS)**.

There was broad consensus among participants that ITS tools are not toys. In terms of autonomous driving, standardisation was recognised as the biggest challenge and automation as a high priority for the future. Autonomous vehicles are attracting the attention of industry and governments for the promises linked to their introduction. Technologies will be soon on the market and regulators will act as enablers, at least at the beginning. When it comes to liability, questions remain open in terms of responsibility for system malfunctioning, testing vehicles before being put in the market, positioning of insurance companies, etc.

As regards MaaS, participants acknowledged that each region/city has a different perception, acceptability or level of MaaS adoption. It is important that MaaS include public transport, but other services as well. A key issue to be addressed in MaaS concerns its legal implications, especially those related to the ownership, use and privacy of its data.

In general, the conference concluded that more research is needed on user behaviour and large data analysis. Cities have an important role to play in turning ITS technology into mobility solutions and ITS innovation concerns all types of cities regardless of their size.

A total of 24 proposals were received for the poster session (17 from the University of Žilina, 7 from abroad) out of which 15 were presented at the conference. The best poster award was granted to the Early Stage Investigator from Polytechnic of Torino, Giulia Melis.

As a follow up of the conference, a scientific report will be prepared on the main conclusions from the two parallel Working Groups (Autonomous Driving and MaaS). It will be published on the COST and ERA-diate websites and distributed to conference participants and additional stakeholders.

To maximise scientific impact, authors of selected posters will be invited to submit a paper based on their poster presentation. Contributions will be compiled into a special issue to be submitted to a scientific journal.

Presentations of the speakers are available here:

[Presentations_1](#)

[Presentations_2](#)

[Presentations_3](#)



Report on the 5th IRE Expert Conference "Green Mobility - Green Cities" in Ljubljana, Slovenia

Eighty experts and representatives from politics and economy from 7 European countries met on 10 November 2016 in Ljubljana, Slovenia, at the 5th annual IRE Green Mobility Conference on the topic '*Master Mobility Plan for Green cities – sustainable and interconnected cities in Europe*'.

The scope of this conference is to bring up aspects of sustainable urban mobility on a high level, of best-practice examples, innovative traffic programmes and technological solutions as well as giving impulses for new activities, cooperations and projects.

ERAdiate team members Karl Ernst Ambrosch and Dietrich Leihs participated in this conference in various ways. In his keynote speech, Dietrich Leihs provided an outlook on regional mobility and brought up the topic of investment into sustainable mobility as a factor of economic prosperity. Karl Ernst Ambrosch was invited to the panel discussion "[Integrative and efficient mobility approaches for Green and connected Cities](#)", and stressed the aspect of assessing the impact of mobility measures as an instrument for policy decision support. During the press conference the fact that sustainable mobility could be made an instrument of modern lifestyle was pointed out.

Listen to [podcast Radio Slovenia](#) for the interview of Karl Ernst Ambrosch (starting from 4'10).

The conference programme can be found [here](#).

Photos from the event are available [here](#).



ERAdiate participation in two interdisciplinary COST Actions: an opportunity for the University of Žilina and the Žilina region

ERAdiate team member Dr. Giuseppe Lugano has been recently nominated as the Slovak representative in the Management Committee of two COST Actions, namely COST TU1305 on **“Social Networks and Travel Behaviour”** (ending in March 2018) and COST CA15212 on **“Citizen Science to promote creativity, scientific literacy, and innovation throughout Europe”** (ending in September 2020).

Although not strictly focused on Intelligent Transport Systems (ITS), the involvement in these Actions represents a unique opportunity to **enhance interdisciplinary approach to ITS activities at the University of Žilina**, for instance by highlighting the added value that researchers from social sciences and humanities could bring. For TU1305, Dr. Lugano will work with another colleague from the University of Žilina, Dr. Peter Holečko, who was already involved in the Action as Slovak representative. In CA15212, Dr. Lugano will investigate the role of Citizen Science in Transport/Mobility initiatives by joining the activities of this large network chaired by Dr. Katrin Vohland from the European Citizen Science Association and involving participants from 32 different countries.

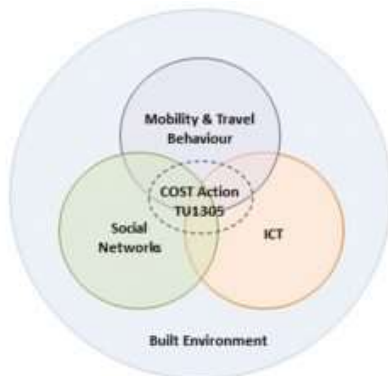
The ERAdiate participation in COST, the longest-running European framework supporting trans-national cooperation in science and technology, provides an excellent opportunity to enhance the visibility and impact of the activities related to the field of ITS that are carried out at the University of Žilina and in the Žilina region. Additionally, local researchers, public authorities, and SMEs, among others, should profit from the opportunity to gain access to the knowledge generated within the Action and to be connected to experts in the field.

The ERAdiate team, via Dr. Lugano, has expressed availability to host Action meetings in Žilina and to activate short-term scientific visits with other institutions participating in the Actions.

For inquiries on the COST Actions, please contact [Dr. Giuseppe Lugano](#).

Further information on the COST Actions:

- [COST TU1305 on “Social Networks and Travel Behaviour”](#)
- [COST CA15212 on “Citizen Science to promote creativity, scientific literacy, and innovation throughout Europe”](#)



COST Action TU1305: relevant research areas



COST Action CA15212: a large network chaired by Katrin Vohland from ECSA

An opportunity to join the Slovak research and innovation community in Intelligent Transport Systems

Intelligent Transport Systems (ITS) in Slovakia is still inadequately exploited for controlling and securing transport systems, in comparison to EU countries more advanced in this field. On the other hand, there is an increasing amount of initiatives at national and regional levels to improve the situation. In parallel, ITS solutions from larger companies and innovative SMEs have emerged, thus gradually creating a community of ITS professionals in Slovakia. This community, however, is fragmented, lacks stakeholder coordination, opinion making, project development, and many more benefits that in many other countries are offered by a dedicated ITS organisation, which is part of the Network of National ITS Associations ([ITS Nationals](#)).

With its recognised competences in transport and ICT, the University of Žilina is a research and innovation leader in Slovakia in the field of ITS. Thanks to the ERAdiate team, this leading role is being reinforced thanks to a variety of initiatives. One of them concerns the gradual development of a Slovak research and innovation community in ITS. **Being the objective to build a network of ITS professionals, a dedicated group on LinkedIn has been recently launched.** Researchers, entrepreneurs, policy-makers, representatives of NGOs or interest groups, stakeholder organisations are welcome to

join and contribute to the discussion. This group, moderated by the ERAciate team, is also open to non-Slovak ITS professionals who wish to connect and develop collaborations with Slovak ITS experts.

Topics of interest include, but are not limited to:

- Cooperative ITS;
- Decarbonisation of mobility;
- Urban mobility and smart cities;
- Intermodal ITS;
- Mobility indicators;
- Autonomous driving.

Benefits from joining the group include getting an **insight into the latest updates in the ITS field in Slovakia and worldwide and the possibility to build trusted partnerships with ITS professionals**. This will allow, for instance, to conceive, develop and implement successful ITS projects contributing to economic and social development.

The group relies on the active involvement of its members, which are expected to:

- stimulate discussions on important ITS topics;
- disseminate information on ITS events of common interest;
- share your ideas on opportunities, new projects or initiatives;
- post jobs in ITS-related areas;
- report best practices or new technological solutions;
- identify common needs that require a common solution or approach.

Contribute to the development of the Slovak ITS community by joining the ERAciate LinkedIn group, and by inviting colleagues to jointly make the ITS benefits a reality for Slovakia as well.



Join the [ERAciate LinkedIn group](#).

Projects

What types of user strategies lead to networks that are inherently resilient to overloads of demand or to temporary outages of failed resources?

This is the central research question of the project **“Decentralised real-time electric vehicle charging: optimality, fairness and resilience”**, in which ERAciate participates via doc. Ing. Ľuboš Buzna. The project, to be run from 2017 to 2018, is associated with the

scientific programme of Alan Turing Institute and has received funding from Lloyd's Register Foundation programme to support data-centric engineering. It is coordinated by the University of Cambridge (Dr. Richard Gibbens), and involves co-investigators from the University of Durham and the University of Žilina.

The project intends to **develop algorithms to coordinate charging of individual electric vehicles based on a decentralised scheduling**. Such approach should allow a central authority to oversee the network and resource usage but allow vehicle owners to represent their individual preferences over charging levels and costs. Real-world data describing mobility and charging behaviour are considered to be pivotal in understanding the stochastic spatial-temporal demands placed on the networks and are used to parametrize mathematical and simulation models.

For further information on the project, please contact [doc. Ing. Ľuboš Buzna](#).

Events

Mark your calendar for the international conference: "Intelligent Transport Systems - From research and development to the market uptake"



The ERAciate team is planning a second **international conference on ITS to be held in Vienna, Austria, on May 16–18, 2017**. The event is endorsed by the European Alliance for Innovation, a leading community-based organisation devoted to the advancement of innovation in the field of ICT.

The full potential of Intelligent Transport Systems (ITS) can only be achieved if deployed worldwide. Research has a major role to play in developing and deploying key ITS technologies, and contributing to standardisation, interoperability between transport modes and countries, and cross-border continuity of services. However, deployment of ITS faces different types of obstacles, which limit the roll-out of ITS implementation and slow down the uptake of research results by the market.

The conference will bring together researchers and stakeholders to share achievements and findings in different areas of Intelligent Transport Systems and address the following questions:

- **What is the role of research and end users in developing ITS solutions?**
- **How to maximise the use of research outcomes by industry?**
- **Should ITS be a priority for regional smart specialisation strategy?**

The call for papers is now open until January 13, 2017 (<http://futuretransport.org>). All accepted papers will be published by Springer and made available through SpringerLink Digital Library, one of the world's largest scientific libraries. Accepted authors will be invited to submit extended versions of their papers to Special Issue in EAI Endorsed Transactions on Industrial Networks and Intelligent Systems.

While one of the objectives of the conference "ITS: A tool or a Toy?" was to promote the University of Žilina, the city of Žilina and the Žilina region among the ITS stakeholders in Europe, **this conference aims at providing a platform for researchers from the University of Žilina to promote results of their research work** and to publish them through the well-recognised publishing company in a European capital (in the vicinity of Žilina and Slovakia).

For further information, please visit the [event website](#).

UNIZA Grants Week 2017: save the date!

The University of Žilina, through the ERAdate project, is organising a summer school on the topic of research funding to take place in Žilina on 19-21 September 2017. Finding external funding is crucial for researchers. How to successfully acquire grants for research and what are funding opportunities? These are the main questions that the UNIZA Grants Week will address. The event is primarily intended for the Central and Eastern European research community, PhD students and research support staff.

The objectives are more specifically to:

- Provide information on European and national funding opportunities (personal and collaborative), with special focus on calls and programmes related to Intelligent Transport Systems
- Share good practice and experience in personal and collaborative fund raising
- Present general aspects and skills important for project design and management
- Provide a network platform for researchers and regional companies to facilitate collaborations

The ultimate goal of the Grants Week is to build capacity and develop the local Intelligent Transport System community. During the three days, participants will be provided with information and advice on how to find the most relevant funding programme and how to write professional and competitive grant proposals. The first day will give an overview of opportunities to finance research and innovation in Europe and Slovak Republic and enhance the relevance of research. The second day will focus on the two Horizon 2020 pillars: Smart, Green and Integrated Transport and Information and Communication Technologies. The third and last day will examine the competences required for grant proposal writing.

For further information, please contact [Dr Giuseppe Lugano](#).



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