

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

EVENTS

INTERNATIONAL CONFERENCE RELIABILITY AND STATISTICS IN TRANSPORTATION AND COMMUNICATION (RELSTAT-2017)

Dear colleagues, we would like to thank you for participating in our annual conference 17th International Multidisciplinary Conference “Reliability and Statistics in Transportation and Communication” (RelStat-2017) that was held in Transport and Telecommunication Institute on October 18-21, 2017, Riga, Latvia.



This year's conference was attended by 143 participants. During the conference more than 78 presentations were given in various areas. The conference participants came from 18 countries: Estonia, Poland, Hungary, Italy, Greece, Slovakia, Czech Republic, Algeria, Russia, Finland, Germany, Kazakhstan, Latvia, Japan, Lithuania, India, Ukraine, Georgia. Selected papers, presented at Conference, will be published in the conference proceeding by Springer Lecture Notes in Networks and Systems <http://www.springer.com/series/15179>.

This year a special interest was caused by the plenary session, that was attended by:

- **Prof. Dr. Nicos Komninos** Head of URENIO Institute of Aristotle University of Thessaloniki Greece with presentation “Smart Specialisation Strategies and the Smart Everything Paradigm”

- **Prof. Eftihia Nathanail**, Head of Traffic, Transportation and Logistics Laboratory University of Thessaly, Greece gave her presentation on topic “A multistakeholder multicriteria decision support platform for assessing urban freight transport measures”

Prof. Ing. Guido Gentile owner of SISTeMA srl, PTV Group and professor in Sapienza University of Rome, Italy with presentation: “Simulation of congestion on public transport networks”.



RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

Successful realization of ALLIANCE Young Researchers' and Trainers' Seminars



19 to 20 October 2017 a Trainers' Seminar and a Young Researchers' Seminar were organized by EU project ALLIANCE Consortium in TTI.

During the Trainers' Seminar, tutors and participants of the 1st ALLIANCE Summer School "Sustainable Transport Interchange Program (STIP) – Part 1: Freight transportation" provided feedback on the program while professors from Transport and Telecommunication Institute (TTI) presented their vision on introducing STIP courses to the TTI existing or new study programs. Participants of the round table were ALLIANCE project partners, TTI tutors, Professors from Lithuanian and Estonian Universities and Ms Inta Rozenšteine, Deputy Director of the Department of Finance and Development Planning, Ministry of Transport, Latvia (SAP member). Participants of the round table discussed further improvement and steps.

In framework of this year's Young Researchers' Seminar entitled "Sustainable Transport Interchanges", 20 postgraduate and PhD students from Latvia, Greece, Germany, Kazakhstan and Japan successfully presented their collaborative research work in 11 interesting presentations which were moderated by Assoc. Prof. Eftihia Nathanail and Prof. Irina Yatskiv.

For more information about the ALLIANCE project, visit following website: <http://alliance-project.eu/>



RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

CURRENT PROJECTS

Smart Logistics and Freight Villages Initiative (SmartLog) workshop

On 18 October 2017, the project “Smart Logistics and Freight Villages Initiative” (SmartLog) partners met for their transnational meeting in frame of the RelStat’17 conference in Riga (Latvia). Project SmartLog started at 1st September 2016. This project focuses on improving the transport corridors and reducing the time in transportation of goods by planning and investing into an ICT solution. The project develops an IoT-solution to logistics sector and tests it on the logistics companies across the two corridors (ScanMed and North Sea-Baltic).

Several questions about the project pending and completed tasks were discussed. Now 2nd prototype of the program is completed and next step – the installation in Tallinn University of Technology (TUT) is planned. The main questions to the moment were the KPI’s of the main programme users. The 2nd Pilot workshop will be held in Estonia, Tallinn at the beginning of December 2017.

Project website: <http://www.kinno.fi/en/smartlog>



POST-DOCTORAL RESEARCH PROJECTS

Dear reader, we would like to inform you, that two post doc projects have started on 1 October 2017. This work was financially supported by the post-doctoral research aid programme of the Republic of Latvia funded by the European Regional Development Fund “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the Operational Programme “Growth and Employment”, namely:

Nadezda Spiridovska – for project “Non-traditional regression models in transport planning and modelling” (Netradicionālie regresijas modeļi transporta plānošanā un modelēšanā, Nr.1.1.1.2/VIAA/1/16/075).

Scientific objective of the proposed project is devoted to non-traditional regression model, namely to the Markov-modulated linear regression model, its establishment and application results in the transport sector.

Dmitry Pavlyuk – for project “Spatiotemporal urban traffic modulling using big data” (Laiktelpiska pilsētas satiksmes modelēšana, izmantojot lielos datus, Nr.1.1.1.2/VIAA/1/16/112).

The project is devoted to development and implementation of the spatiotemporal modelling for urban traffic analysis and forecasting. The key feature of the suggested approach is the simultaneous estimation of spatial dependencies between road segment (e.g. crossroads) and temporal patterns of traffic flows.

Projects are to be carried out for 36 months.



RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

COST Action CA15137 “European Network for Research Evaluation in the Social Sciences and the Humanities” (ENRESSH) is currently under way



COST (European Cooperation in Science and Technology) is a pan-European intergovernmental framework. Its mission is to enable break-through scientific and technological developments leading to new concepts and products and thereby contribute to strengthening Europe's research and innovation capacities. COST is supported by the EU Framework Programme Horizon 2020.

COST Action CA15137 - the “European Network for Research Evaluation in the Social Sciences and the Humanities” (ENRESSH), which is currently under way, is a COST Action, starting in April 2016 and ending in April 2020. ENRESSH gathers participants from 35 European countries. They are researchers in scientometrics, information sciences, sociology of organisations, history, literature and languages, policy makers and research administrators.

ENRESSH aims to propose clear best practices in the field of SSH research evaluation. The Action brings together numerous experts, such as researchers in evaluation studies, policy makers and members of evaluation units, as well as researchers from SSH disciplines. Its approach is based on the comparison and the cross fertilisation of strands of work dedicated to SSH research evaluation, currently under development in different parts of Europe, seeking to avoid unnecessary duplication and to upscale results.

In the project, Transport and Telecommunication Institute is represented by assoc. professor *Yulia Stukalina*, who is a member of the Management Committee of the Action.

The first meetings in the frame of the Cost Action (Brussels, April 2016; Poznan, July 2016) were dedicated to the exchange of experience in order to build a picture of practices across Europe and the state of the art in research on evaluation. The last meeting took place in Antwerp, in July 2017. The Cost Action participants discussed the results achieved during the first year of the project, among them are the following: a scheme of national evaluation has been developed, and bottom-up procedures for evaluating SSH research in Europe have been investigated.

This strand of work is still in progress. In the running second year, a typology of national evaluation systems will be created. The Cost Action participants will expand the work on SSH scholars' perceptions of quality using qualitative and quantitative techniques and analyse the peer review processes in the SSH from different perspectives.

Action website: <http://enressh.eu/>

The member of Management Committee of COST CA15137 is Dr.sc.admin. Assoc. Prof. **Yulia Stukalina**

Period: 08.04.2016-07.04.2020

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

COST Action CA16222: Wider Impacts and Scenario Evaluation of Autonomous and Connected Transport



Autonomous vehicle (AV) trials are currently taking place worldwide and Europe has a key role in the development of relevant technology. Yet, very limited research exists regarding the wider implications of the deployment of such vehicles on existing road infrastructure, since it is unclear when the transition period will start and conclude.

It is anticipated that improved accessibility and road safety will constitute the primary benefits of the widespread use of AVs, whilst co-benefits may also include reduced energy consumption, improved air quality or better use of urban space. Therefore, the focus of this COST Action is on observed and anticipated future mobility trends and implications on travel behaviour, namely car sharing, travel time use or residential location choice to name a few. Other important issues to be explored under different deployment scenarios are social, ethical, institutional and business impacts.

To achieve this, it is essential to culminate co-operation between a wide range of stakeholders at a local, national and international level, including academics and practitioners. Consequently, this COST Action will facilitate collaboration within Europe and beyond about this emerging topic of global interest.

Action website: http://www.cost.eu/COST_Actions/ca/CA16222

The member of Management Committee of COST CA16222 is *Dr.Sc.Eng.*, Prof. **Irina Jackiva**

Period: 13.10.2017 - 12.10.2021

In the spring of 2018, the themes for doctoral studies and possible internships on topics of this project will be announced.

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

EUROPEAN HOT NEWS

€2 Million Horizon prize for better mobility of older people

The aim of this contest is to develop innovative and sustainable mobility solutions for senior citizens (65+). This will help to combat social exclusion and support independent living.

The prize will be launched during the 'Opening up to an era of social innovation' conference in Lisbon on 27-28 November 2017.

Submissions will be accepted until February 2019 and the prize will be awarded in 2019.

More information: <https://ec.europa.eu/programmes/horizon2020/en/news/%E2%82%AC2-million-horizon-prize-better-mobility-older-people>

New Horizon 2020 Work Programme announced

On October 27, the European Commission has announced the new Horizon 2020 Work Programme, including all funding opportunities for the two upcoming years available to research and innovation (R&I) projects.

The total funding is over € 30 billion, of which €3.3 billion has been earmarked for funding projects focusing on a low-carbon, climate resilient future. Out of this amount, €2.15 billion will be managed by the Innovation and Networks Executive Agency (INEA).

In the field of energy, €2.2 billion will be available to projects. INEA will manage the budget of €1.3 billion to fund R&I projects focusing on renewable energy, energy systems and smart cities and communities. Have a look at the full Horizon 2020 Energy work programme.

In the field of transport, €950 million will be available to R&I projects, out of which €850 million will be managed by INEA. Projects to be selected should work on mobility for growth, automated road transport and green vehicles. Read the full Horizon 2020 Transport work programme.

The detailed topic descriptions, call conditions and budget information for any of these calls can be found on the Participant Portal of the European Commission.

More information: <https://ec.europa.eu/inea/en/news-events/newsroom/new-horizon-2020-work-programme-announced>

JRC opens access to JRC research infrastructures

The European Commission's Joint Research Centre (JRC) has announced that it opens its scientific laboratories and facilities to people working in academia and research organisations, industry, SMEs, and more in general to the public and private sector. The JRC offers access to its non-nuclear facilities to researchers and scientists from EU Member States, candidate countries and countries associated to Horizon 2020. For nuclear facilities, the JRC will open to EU Member States, candidate countries (on the conditions established in the relevant agreement or decision) and countries associated to the Euratom Research Programme.

The results will also feed into JRC's mission to support EU policymaking.

In a pilot project, three facilities in Ispra (Italy) with the necessary infrastructure to host visitors will offer access through dedicated calls in the fields of safety and security of buildings and of nanobiotechnologies. Other JRC facilities in Belgium, Germany and the Netherlands are planning to gradually provide access after completion of the pilot phase in 2017-2018.

More information: <https://ec.europa.eu/jrc/en/research-facility/open-access>

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

Open Research Data and Data Management Workshop

On 27 October 2017 employees of the Research and Development Department of TTI took part in the workshop on topic “Open Research Data and Data Management” organized by Data Archiving and Networked Services – DANS.

Information was provided on following topics:

1. OpenAIMP – <https://www.openaire.eu> – a project that seeks to consolidate a common methodology for collecting, storing and using scientific data.
2. Data Management Plan described how it would be appropriate to create a project data processing plan (creation, storage, use).
3. Sustainable places for storing data and the tool appeared: re3data.org.
4. data.gov.lv – Public Open Data Repository.
5. Sustainable places for storing data and the tool appeared: re3data.org.
6. data.gov.lv – Public Open Data Repository.



RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

SCIENTIFIC COLLABORATIONS AND NETWORKING

VISITING RESEARCHERS

This autumn Transport and Telecommunication Institute is actively visited by international PhD students and researchers.

Some of them have the grants for STSM – short time scientific mission from European Widening Programme (COST Actions and TWINNING), some – used their national findings or Latvian State Education Development Agency. STSM is an opportunity to go to an institution or laboratory in another country to foster collaboration, to do the research, to learn a new technique or to take measurements using instruments and/or methods not available in their own institution/ laboratory. TTI are actively visited by international students-researchers.

During the last two months the requests on STSM was obtained by several persons:

Name, Surname: PhD student Gani Askarov
Organisation: Al-Farabi Kazakh National University
Grant: Al-Farabi Kazakh National University
Stay period: from 01.09.2017 to 25.11.2017
Research area: Transport logistics
Scientific supervisor: Dr.hab.sc.ing. Jurijs Toluevs



Name, Surname: PhD student Ioannis Karakikes
Organisation: University of Thessaly
Grant: COST TU1305
Stay period: from 17.09.2017 to 23.09.2017
Research area: Simulation and impact assessment of innovative systems for urban freight distribution
Scientific supervisor: Dr.sc.ing. Mihails Savrasovs



Name, Surname: Dr. Giannis Adamos
Organisation: University of Thessaly, Traffic, Transportation and Logistics Laboratory
Grant: ALLIANCE project (Grant agreement no. 692426)
Stay period: from 17.09.2017 to 23.09.2017
Research area: Passenger transport accessibility at interchanges
Scientific supervisor: Prof., Dr.sc.ing. I.Yatskiv



RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

Name, Surname: Nika Tikanashvili

Organisation: Georgian Aviation University

Grant: “Latvian State Fellowships For Research 2017” supported by the Latvian State Education Development Agency

Stay period: from 10.10.2017 to 09.02.2018

Research area: Maintenance of Air Navigation Systems

Scientific supervisor:

Professor, Dr.hab.sc.ing. Igor Kabashkin.



Name, Surname: Kahlouche Abdelaziz

Organisation: Frères Mentouri, Constantine University, Laboratory of Transport Engineering and Environment

Stay period: from 01.10.2017 to 30.10.2017

Research area: Urban railway safety

Scientific supervisor:

Prof., Dr.sc.ing. I.Yatskiv.



For more information about short time scientific mission visit TSI website: <http://www.tsi.lv/lv/content/short-time-scientific-missions-0>

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

RECOMMENDED CONFERENCES, SCIENTIFIC JOURNALS AND PUBLICATIONS

Dear colleagues, we would like to invite you to pay attention to the following conferences:

1. The 28th International Conference on Information Modelling and Knowledge Bases (EJC 2018), Riga, Latvia, June 4-9, 2018
<http://www.ejc-conference.org/index.html>
2. 21st EURO Working Group on Transportation Meeting (EWGT 2018)
Braunschweig, Germany, September 17-19, 2018
The call for papers is open until December 1, 2017.
<http://ewgt2018.org/cms/english/start.html?acceptCookie=1&lang=2&changelang=2>
3. 25th ITS World Congress
Copenhagen, Denmark, September 17-21, 2018
<http://itsworldcongress.com/wp-content/uploads/2017/09/Copenhagen-2018-call-for-contributions-brochure.pdf>
4. 5th International symposium for road transport technology (HVTT 15)
Rotterdam, Netherlands, October 2-5, 2018
<http://www.cvent.com/events/hvtt15/event-summary-20c6ca3c1e2b497eb0a63d49cf381d38.aspx>

Scientific Journal

European Transport Research Review (ETRR) is a peer-reviewed open access journal publishing original high-quality scholarly research and developments in areas related to transportation science, technologies, policy and practice. Established in 2008 by the European Conference of Transport Research Institutes (ECTRI), the journal provides researchers and practitioners around the world with an authoritative forum for the dissemination and critical discussion of new ideas and methodologies that originate in, or are of special interest to, the European transport research community. The journal is unique in its field, as it covers all modes of transport and addresses both the engineering and the social science perspective, offering a truly multidisciplinary platform for researchers, practitioners, engineers and policymakers.

ETRR covers the following main areas of interest:

- Freight transport and logistics;
- Transportation infrastructure;
- Mobility and transport behaviour;
- Transportation ergonomics and human factors;
- Transportation safety and security;
- Transportation planning and policy;
- Transportation economics;
- Transportation system management, including Intelligent Transportation Systems (ITS);
- Environmental issues in transportation and climate change;
- Vehicle design & technology.

ETRR is aimed at a readership including researchers, practitioners in the design and operation of transportation systems, and policymakers at the international, national, regional and local levels. While its focus is on Europe, it will be of interest to anyone wishing to learn from European experience or to develop new applications for European practice.

ETRR Editor-in-Chief - Dr. K. Geurs

Latest Issue available online:

Volume 9, Issue 3 (September 2017 - Articles 32-46)

Submissions are welcome through the journal's website.

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

Please note that ECTRI sponsors a limited number of waivers to article-processing charges each year to ECTRI Members (including TTI); authors who wish to benefit from this should contact the Editor-in-Chief and ask for a submission code at: k.t.geurs@utwente.nl

More information: <https://link.springer.com/journal/12544>

Recommended Publications

1. Position on Research Impact Assessment

Science Europe published its Position Statement "On a New Vision for More Meaningful Research Impact Assessment". Considering the different ways research brings value to society, Science Europe advocates using the notion "value" rather than "impact". According to the paper, "impact" does not reflect the intrinsic value of scientific research and its capacity to generate new knowledge. A broader notion of research impact, enriched by societal value, would contribute to making the impact assessment more meaningful.

The statement provides a series of key principles and actions for policy makers and research organisations to help bring forward a new vision for impact assessment. Science Europa also aims to contribute to a better understanding of impact and its assessment, as a precondition to capture and communicate it. The paper is to some extent a response to the report of the "High Level Group on maximising impact of EU Research and Innovation Programmes" published on 3 July 2017.

<https://www.rri-tools.eu/-/science-europe-position-statement-new-vision-for-more-meaningful-research-impact-assessment>

2. ERF Road Statistics Yearbook 2017

The ERF Statistics provides readers with all the latest data on European roads. This practical hand-book is a useful tool for stakeholders wishing to get a better insight on topics related to road safety, passenger transport, freight transport and many more.

http://erf.be/images/2017/Statistics/Road_statistics_2017.pdf

3. OECD 2017 Digital Economy Outlook

The OECD published its Digital Economy Outlook for 2017 on 11 October 2017. Amongst other issues, the report gives the following messages:

- Governments are waking up to the challenges and opportunities of digital transformation;
- Despite the effects of the crisis, IT services continue to grow and spur a positive outlook;
- Developing quickly, communication infrastructures and services are upgrading for a new surge of data;
- ICT usage keeps growing but is unequally distributed across countries, firms and individuals;
- Digital innovation and new business models are driving an economic transformation, including of jobs and trade;
- Effective use of ICTs in life and for work requires more specialist and generic skills in ICTs complemented by better foundational skills;
- Concerns about digital security and privacy restrain ICT adoption and business opportunities;
- The promises of artificial intelligence are accompanied by important policy and ethical questions;
- The potential of blockchain hinges on grappling with technical hurdles and policy challenges.

The report also points out that digitalization will require not only more ICT specialists but also greater uptake of advanced ICT tools by firms and adaptation of public policies to the new digital challenges.

<http://www.oecd.org/internet/oecd-digital-economy-outlook-2017-9789264276284-en.htm>

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

4. Global Mobility Report

The Global Mobility Report was produced by the Sustainable Mobility for All (SuM4All) initiative, a global partnership acting collectively to transform transport and meet the mobility expectations of tomorrow in a sustainable way.

The Global Mobility Report proposes a framework for tracking transport's progress towards sustainable mobility, providing the transport sector with a tool for better policy and investment decisions.

<http://sum4all.org/publications/global-mobility-report-2017?CID=TAI TT Transport EN EXT>

5. TRIP report identifies key research areas to unlock clean transport potential

A new report from the European Commission funded Transport Research Innovation Portal (TRIP) provides insight into the deployment of clean transport in Europe – identifying priority research areas to unlock the full environmental, economic and social benefits of low carbon mobility.

“Research Theme Analysis Report: Cleaner Transport” is available to download for free at <https://trimis.ec.europa.eu/content/trip-research-theme-analysis-report-cleaner-transport>

To find out more about TRIMIS, to sign up to regular transport research and innovation updates or to submit your research to the new online portal, visit <https://trimis.ec.europa.eu>

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

OCTOBER 2017

OTHER NEWS

Window to the world of science, inventions and experiments

On September 29, 2017, Transport and Telecommunication Institute became a member of annual European Researchers' Night, which takes place in more than 230 European cities!

„Science Night” – the only night of the year, that gives everybody an opportunity to immerse in the world of science, inventions and experiments! This year's theme – „**LEARN ABOUT INNOVATIONS**”.

TSI has invited everyone to visit the newest laboratories in TSI.

Great interest among the visitors of the „Science Night” was caused by the work of creative workshops „Make and programme your own robot” and “How to make a fidget spinner with your own hands?”, demonstrations of the possibilities of the Lego robots, Kawasaki robot manipulator, Arduino-based mobile robot, Spider robot and of course car races and drone flight simulator!

During the „Science Night” on September 29, 2017, Transport and Telecommunication Institute was visited by more than 840 guests! Among them were pupils and teachers, parents and just curious visitors. The visitors signed up by groups, there were whole busses of people interested in this event. European „Science Night 2017” at TSI was properly held!



If you have any ideas or suggestions, feel free to contact TTI research department:

Viktorija Gruzite - room 116, phone 67100586, e-mail: Gruzite.V@tsi.lv

Vladimirs Petrovs - room 114, phone 67100584, e-mail: Petrovs.V@tsi.lv