

RESEARCH & DEVELOPMENT DEPARTMENT NEWSLETTER

AUGUST 2017

NEWS AND EVENTS

SUCCESSFULLY COMPLETED THE FIRST SUMMER SCHOOL IN THE FRAMEWORK OF THE ALLIANCE PROJECT

July 22 with great success ended the first summer school in the framework of the ALLIANCE project (<http://alliance-project.eu/>). The summer school was held at the Transport and Telecommunications Institute (TSI) in cooperation with the ALLIANCE project partners: the Thessaly (TTLog, UTH) Laboratory of Traffic, Transportation and Logistics, and the Fraunhofer Institute (IFF). During the week, 25 students of master's and doctoral programs in the field of Transport and Logistics from Latvia, Greece, Germany and Lithuania were trained according to the program "Sustainable Transport Interchanges: Freight Transportation".

Of interest to the students were courses on Methodology of decision making and Business models for transport terminals. On the last day, the audience presented their mini project results, which were prepared by international teams throughout the week. Competent international jury consisting of: Deputy Director of the Finance and Development Planning Department of the Ministry of Transport, **Inta Rozenšteina**, Member of the Board of the European Transport Association **Graham Ellis (UK)**, **Prof. Eftihia Nathanail (UTH)** and **Prof. Irina Yatskiv (TSI)** highly appreciated all the work and pointed out that every work could be a good basis for further research work.



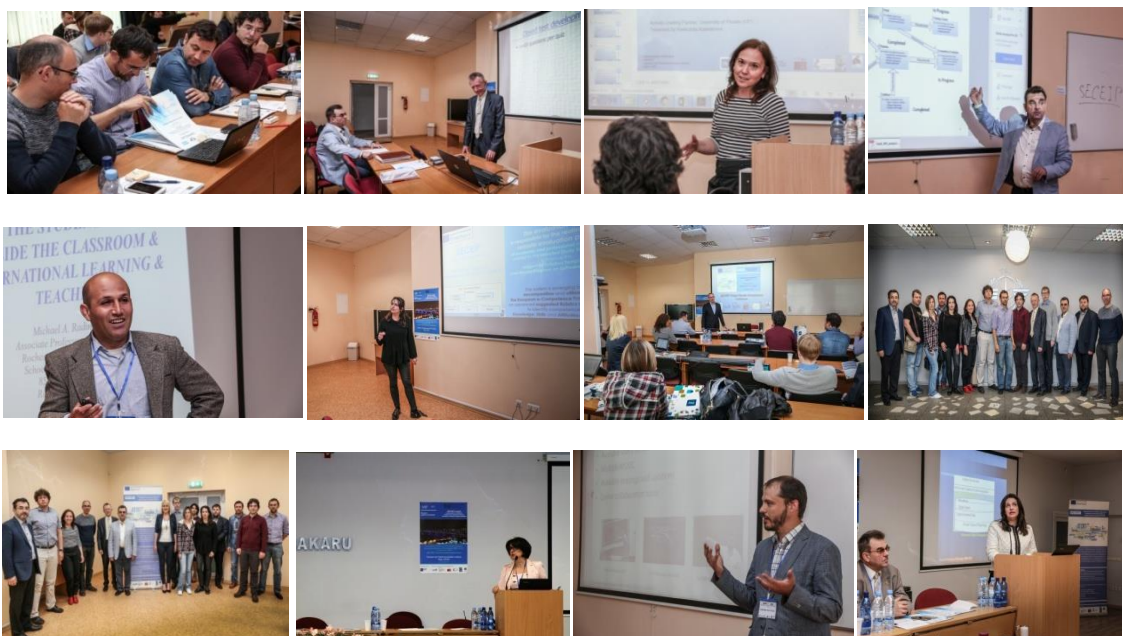
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THE FINAL TRANSNATIONAL PARTNER MEETING IN FRAMEWORK OF THE “iSECRET” PROJECT

From June 1 till 2, 2017, the project “Implementation of Software Engineering Competence Remote Evaluation for Master Program Graduates (iSECRET)” (project no. 2015-1-LV01-KA203-013439) partners met for their final transnational work meeting “iSECRET Project Results Dissemination” in Riga (Latvia).

Representatives of organizations implementing the project iSECRET coming from Greece, Lithuania, Poland, Spain and Bulgaria met at the headquarters of the Transport and Telecommunication institute to discuss in depth the work that had been done and has presented progress of the project. The meeting was held in conjunction with International Conference MIP2017 "Contemporary Problems of Education".



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PARTICIPATION OF DOCTORAL STUDENTS AND LECTURERS OF TSI AT THE 10TH INTERNATIONAL LOGISTICS WORKSHOP DURING THE SCIENCE WEEK IN MAGDEBURG

On June 20-22, 2017, the Institute for Logistics and Material Handling Systems of the Otto von Guericke University Magdeburg, in cooperation with Fraunhofer IFF and with support of ALLIANCE project, hosted the 10th International Doctoral Students Workshop on Logistics. The Workshop was in the framework of the 20th IFF Science Days of the Fraunhofer Institute for Factory Operation and Automation.

About 50 guests from seven countries (Hungary, Ukraine, Cuba, Latvia, Germany, France and Greece) were welcomed this year and 8 of them were doctoral and master's students from TTI. In total 5 presentations were made by doctoral students and collaborative research teams of ALLIANCE project. The workshop was part of the ALLIANCE dedicated knowledge-sharing activities.

The Call for Papers of the 11th International Doctoral Students Workshop on Logistics in 2018 will be dispatched in November 2017. Interested parties can be added to the mailing list by sending a mail to Niels Schmidtke of the Fraunhofer IFF (niels.schmidtke@iff.fraunhofer.de).



For further information please visit: <http://www.ilm.ovgu.de/doktorandenworkshop.html>



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Scholars for Research and Studies at the Transport and Telecommunication institute

We are pleased to inform you that the State Education and Development Agency (SEDA) grants scholarships to 2 (two) Scholars for Research and Studies at the Transport and Telecommunication institute (TSI) and covers accommodation expenses for the Scholarship, which conducts research activities at the TSI in the 2017/2018 academic year.

No	Name, surname	Country	Position	Period
1.	<i>Nika Tikanashvili</i>	Georgia	Researcher	01.10.2017. – 31.01.2018. (123 days)
2.	<i>Abduboriy Khabibullaev</i>	Uzbekistan	Student	01.09.2017. – 28.02.2018. (6 months)

IT Laboratory in collaboration with X INFOTECH Image Processing, Biometry & Automated Border Control Systems (IPB & ABC)

The new research laboratory for image processing, biometry and automated border control systems (IPB & ABC) is already opened. The work schedule with students in laboratory is planned from September. This laboratory is provided for carrying out theoretical and practical research in the field of image analysis and human biometric identification methods. The main directions of the laboratory activities are related to research and development of methods and algorithms of image analysis, identification of human biometrics and other facilities, operation and information security systems of automated border control.

The aim of the laboratory is to improve and develop education in the field of engineering technical and computer science at TSI, as well as developing the creative abilities of students and intensify scientific and research work of the faculty staff. The laboratory is a scientific educational and technical base for carrying out research in the field of image analysis and methods of identification of human biometrics, as well as preparing proposals for participation in projects and their implementation.

Main tasks of IPB&ABC:

- Monitoring of the state and implementation of scientific and applied research in the field of image analysis and processing, biometric methods of human identification, objects, documents, information protection;
- developmental design, software solutions and testing of methods and equipment in a complex for an automated checkpoint (Automated Border Control System);
- development of the architecture of the information system of the automated checkpoint and interfaces for inclusion in existing information systems, databases and data banks;
- research, development and testing in the field of network and information security of the automated checkpoint system (using Cisco TSI laboratory equipment);
- Scientific support, debugging and modernization of existing and future products (priority is in the interests of the X-InfoTech campaign);
- attracting talented young people from among students and employees to perform research regarding profile of the laboratory
- attraction of the European funds in the framework of scientific projects regarding profile of the laboratory;
- incubation of "start-ups" based on the most successful student projects and solutions.

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SAVE THE DATE: 18-21 OCTOBER 2017

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

Dear colleagues, we are glad to invite you to participate in our annual conference **RelStat-17**. As usually we have main programme of the conference that is focused on the following topics: Smart Solutions in Transportation Systems; Networking and Telecommunications; Reliability, Risk and Safety Applications; Mathematics, Statistics, Modelling and its Applications; Information Systems and Information Technologies; Business and Economics Applications; Mobile and Distance Education. In order to support sustainability of the educational/training activities, ALLIANCE Consortium will organize a “**Young Researchers**” Seminar in Riga, Latvia from 18 to

21 October 2017, during the 17th International Conference on Reliability and Statistics in Transportation and Communication (RelStat-17).



Invited speakers:



Prof. Dr. Nicos Komninos
Aristotle University of Thessaloniki Greece
Smart Specialisation Strategies:
An online platform for strategy design, implementation and assessment
Transport measures



Prof. Eftihia Nathanail
Traffic, Transportation and Logistics Laboratory
University of Thessaly, Greece
A multistakeholder multicriteria decision support platform for assessing Urban Freight



Prof. Ing. Guido Gentile
Sapienza University of Rome, Italy and
and SISTeMA srl, PTV Group
Simulation of congestion in public transport networks

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More information on conference website: <http://relstat2017.tsi.lv/>

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NEW PROJECTS

POST-DOCTORAL RESEARCH AID

Transport and Telecommunication institute has just received confirmation that 3 of its Doctorates have received funding within Activity 1.1.1.2 “Post-doctoral Research Aid” of the Specific Aid Objective 1.1.1 “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 (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.

Tatjana Endrjukaite - Integrated Model for Energy Generation, Distribution and Management (Enerģijas ražošanas, sadales un pārvaldības integrētais modelis (1.1.1.2/VIAA/1/16/095)). The main goal of research is to develop country energy mixture model for clean environment and economy development in Latvia and implement a prototype of a novel routed smart grid system for energy distribution and management. The current project proposes a new integrated model of energy generation, distribution, and management.

Dmitry Pavlyuk - Spatiotemporal urban traffic modulating using big data (Laiktelpiska pilsētas satiksmes modelēšana, izmantojot lielos datus (Nr.1.1.1.2/VIAA/1/16/112)). The proposed 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.

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

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