



PROGRAMME

of the 10th International Conference

**“RELIABILITY and STATISTICS in
TRANSPORTATION and COMMUNICATION
(*RelStat'10*)”**

20–23 October 2010. Riga, Latvia

Transport and Telecommunication Institute

Lomonosova 1, 9-floor building

<http://RelStat.tsi.lv>

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“Reliability and Statistics in Transportation and Communication” (RelStat’10)

20–23 October 2010. Riga, Latvia
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Date	Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #3 (Aud. 223)
20.10.2010	18.00–19.00	Registration		
	18.30	A Reception Hosted by the TTI Management (TTI Cafe, 1 st floor)		
21.10.2010	9.00–14.00	Registration		
	10.00–12.30	Opening and Plenary Sessions		
	12.30–14.00	Lunch		
	14.00–15.40	Parallel Sessions		
		Transport Systems - 1	Statistical Methods and their Applications - 1	Aviation
	15.40–16.10	Coffee Break		
	16.10–18.00	Parallel Sessions		
Transport Systems - 2		Applications of Mathematical Methods to Logistics and Business	Transport and Business Logistics - 1	
22.10.2010	10.00–11.30	Intelligent Transport Systems	Statistical Methods and their Applications - 2	Simulation
	11.30–12.00	Coffee Break		
	12.00–13.30	Parallel Sessions		
		Intelligent Transport Systems (Electronics)	Statistical Methods and their Applications - 3	Transport and Business Logistics - 2
	13.30–14.30	Lunch		
	14.30–16.30	Parallel Sessions		
		Workshop “COST actions of Transport and Urban Development domain in TTI”		Transport and Business Logistics - 3
18.00	Dinner (Restaurant “LIDO”)			
23.10.2010	9.00–11.00	Old Riga Walking Tour		

WEDNESDAY, OCTOBER 20

- 18.00–19.00 *Registration*
18.30 *A Reception Hosted by the TTI Management (TTI Cafe, 1st floor)*

THURSDAY, OCTOBER 21

- 9.00–14.00 *Registration*
10.00–12.30 *Open Session – Moderator: Irina Yatskiv*
- *Irina Yatskiv*, Co-Chairman of the Organization Committee (Latvia)
 - *Boriss Misnevs*, Rector of the Transport and Telecommunication Institute (Latvia)
 - *Inna Kordonsky-Frankel*, President of the Kh. Kordonsky Charitable Foundation (USA)
 - Ceremony of TTI Benefactors Awarding:
 - Kh. Kordonsky Charitable Foundation (USA), *Inna Kordonsky-Frankel*, President
 - ACCENTURE LATVIA, *Maksim Jegorovs*, Director
 - HIGH INFORMATION TECHNOLOGIES, *Sergejs Elisejevs*, Director
 - X INFOTECH, *Sergejs Elisejevs*, Director
- Plenary Session – Moderator: Igor Kabashkin*
- *Dalė Dzemydienė, Raimundas Vaitkevičius, Ignas Dzemyda*
Patterns Recognition Based on Structural Equation Models in Multi-Dimensional Data Warehouse of Psychological Data (Lithuania)
 - *Jacek Mazurkiewicz, Tomasz Walkowiak*
Dynamic Vehicle Fleet Management in Discrete Transport Systems (Poland)
- 12.30–14.00 *Lunch*
14.00–15.40 *Parallel Sessions*
15.40–16.10 *Coffee Break*
16.10–18.00 *Parallel Sessions*

FRIDAY, OCTOBER 22

- 10.00–11.30 *Parallel Sessions*
11.30–12.00 *Coffee Break*
12.00–13.30 *Parallel Sessions*
13.30–14.30 *Lunch*
14.30–16.30 *Parallel Sessions*
18.00 *Dinner (Restaurant “LIDO”)*

SATURDAY, OCTOBER 23

- 9.00–11.00 *Old Riga Walking Tour*

THURSDAY, OCTOBER 21

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #3 (Aud. 223)
14.00–15.40	Session 1 Transport Systems Moderators: <i>Ramūnas Palšaitis, Genadijs Gromovs</i>	Session 2 Statistical Methods and their Applications Moderators: <i>Irina Yatskiv, Yury Paramonov</i>	Session 8 Aviation Moderators: <i>Eugene Kopytov, Alexander Medvedev</i>
	<ol style="list-style-type: none"> 1. <i>Daiva Griskeviciene, Algirdas Griskevicius, Ausrine Griskeviciute-Geciene</i> Providences and Projections Regarding the Prognostication of Railway Transport Volumes from a Long-Term Perspective 2. <i>Bibiana Poliakova</i> Analysis of Possibilities for Implementation of Integrated Transport Systems in the Conditions of Slovak Republic 3. <i>Ramūnas Palšaitis, Andrejus Ponomariovas</i> Quality of Rail Freight Transport 4. <i>Irina Yatskiv, Irina Pticina</i> The Urban Public Transport System Quality Indicator for European Cities 5. <i>Shuts Vasilij, Vaitsekhovich Aksana</i> Arterial Adaptive Traffic Control 	<ol style="list-style-type: none"> 1. <i>Yury Paramonov, Maris Hauka</i> Using the Theory of Markov Chains and a Semi-Markov Process to Estimate the Reliability of Aircraft and Airlines 2. <i>Konstantin N. Nechval, Nicholas A. Nechval, Maris Purgailis, Uldis Rozevskis, Vladimir F. Strelchonok, Juris Krasts, Gundars Berzins, Kaspars Cikste</i> Statistical Predictive Inferences for Extreme Value Distributions Based on Censored Life Data 3. <i>Dmitry Pavlyuk</i> Spatial Competition and Cooperation Effects on European Airport Efficiency 4. <i>Jelena Revzina</i> Possibilities of MMPP Processes for Bursty Traffic Analysis 	<ol style="list-style-type: none"> 1. <i>Yury O.Solovyov, Sharif E. Guseynov, Oleg V. Shciptsov</i> The Investigation and Construction of a Continuous Non-Stationary 3D Mathematical Model for Ecological Monitoring of the Area Surrounding an Airport 2. <i>Sergey Yunusov, Eugene Kopytov, Vladimir Labendik</i> Selection of the Diagnostic Parameters for Controlling and Diagnosing the Gas Turbine Engine Using Regression Analysis 3. <i>Daniela Šusteková</i> The Decision According to Criteria in the Expert System Inference Engine for Airlifting
15.40–16.10	Coffee Break		

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #3 (Aud. 223)
16.10–18.00	<p style="text-align: center;">Session 1 Transport Systems</p> <p>Moderators: <i>Igor Kabashkin, Genadijs Gromovs</i></p>	<p style="text-align: center;">Session 6 Applications of Mathematical Methods to Logistics and Business</p> <p>Moderators: <i>Eugene Kopytov, Vladimir Labeyev</i></p>	<p style="text-align: center;">Session 4 Transport and Business Logistics</p> <p>Moderators: <i>Darius Bazaras, Rostislav Kopitov</i></p>
	<ol style="list-style-type: none"> 1. <i>Marina Petrunina, Yury Sikerzhicky</i> The Description of the Dynamic Transportation Model in the Terms of Efficiency Measures 2. <i>Marta Knutelska</i> Evaluating the Operational Reliability of Road Vehicles 3. <i>Milan Valuch,, Lubomir Pepucha, Martin Pitonak, Peter Frano</i> Surface Pavement Characteristics and Accident Rate 4. <i>Aldona Jarasuniene</i> The Solutions to Vehicle Traffic Organisation Problems in Vilnius 5. <i>Denis Kapski, Dmitry Mozalevskij, Antonina Korzhova, Vasily Kuzmenko, Anna Polhovskaya, Katerina Kostyukovich, Eugeny Kot</i> The Theory and Practice of Improving Road Traffic Safety at Accident Sites through Methods of Road Traffic Organization 	<ol style="list-style-type: none"> 1. <i>Jekaterina Baranova, Sharif Guseynov</i> The Construction and Investigation of a Mathematical Model for the Maximisation of Divisible Production Volume under Limited Resources and Finance 2. <i>Vjacheslav A. Zelentsov, Eugene A. Kopytov, Alexander N. Pavlov</i> A Combined Method of the Multi-Criteria Failure Criticality Analysis of the Complex Objects' Elements 3. <i>Eugene Kopytov, Dmitry Abramov</i> Modelling of Multimodal Freight Transportation System 4. <i>Stanislav Grishin, Eugene Kopytov, Oleg Schiptsov</i> Decision Support System in the Field of Urban Transport Ecology 	<ol style="list-style-type: none"> 1. <i>Darius Bazaras, Mindaugas Kazlauskas, Aidas Vasilis Vasiliauskas</i> Problematical Points in the E-Trade System 2. <i>Bakhmane Ludmila</i> Development of Strategic Marketing Solutions in Circumstances of Rapidly Changing External Environment 3. <i>Dalė Dzemydienė, Ramutė Naujikienė, Marius Kalinauskas</i> Security Requirements and Possibilities of Risk Evaluation in E-Financial Payment Systems 4. <i>Rostislav Kopitov, Roman Zaharov</i> Mechanisms of Fundamental Changes in the Interval Uncertainty Removal Process in the Context of Organizational Structure Management 5. <i>Rostislav Kopitov, Yury Zhilaev</i> Motivative Administration Mechanisms in Problems of Sustainable Functioning of an Enterprise

FRIDAY, OCTOBER 22

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #3 (Aud. 223)
10.00–11.30	<p align="center">Session 3 Intelligent Transport Systems Moderators: <i>Igor Kabashkin, Alexander Grakovski</i></p>	<p align="center">Session 2 Statistical Methods and their Applications Moderators: <i>Alexander Andronov, Viktor Lymkis</i></p>	<p align="center">Session 9 Simulation Moderators: <i>Eugene Kopytov, Irina Yatskiv</i></p>
	<ol style="list-style-type: none"> <i>Victor Krebs, Boris Tsilker</i> Coverage Evaluation Approaches for Intelligent Transportation Systems Based on Anisotropic Sensor Networks <i>Dale Dzemydiene, Antanas Andrius Bielskis, Arunas Andziulis, Darius Drungilas, Ramunas Dzindzalieta, Gediminas Gricius</i> The Reinforcement Framework of a Decision Support System for the Localization and Monitoring of Intelligent Remote Bio Robots <i>Boris Tsilker, Sergey Orlov</i> Computing Parallelization Efficiency Estimation in the Intelligent Transportation Systems <i>Sergey Orlov, Andrei Vishnyakov</i> Architecture Estimation for Logistics and Transport Software <i>Michaela Gajňáková, Juraj Vaculik, Martin Vaško</i> The Use of Multi-User Virtual Environments in the Field of Education 	<ol style="list-style-type: none"> <i>Dmitry Pavlyuk, Vaira Gromule</i> Discrete Choice Model for a Preferred Transportation Mode <i>Victor Lyumkis, Aleksandr Krivchenkov</i> Using the R Environment for Processing Statistical Data and Construction Regression Dependences <i>Alena Košťálová</i> Application of Chi-Square Test of Independence in the Utilization of Postal and Telecommunication Services <i>Konstantin N. Nechval, Nicholas A. Nechval, Maris Purgailis, Uldis Rozevskis, Vladimir F. Strelchonok, Juris Krasts, Gundars Berzins, Kaspars Cikste</i> Technique of Improving Statistical Decisions for Inventory Problems Under Parametric Uncertainty and Constraints 	<ol style="list-style-type: none"> <i>Peter Kolarovszki, Vladimír Dúbravka</i> The Simulation of Production Line and Warehouse Management Based on RFID Technology through 3D Modelling and Animation <i>Mihails Savrasovs</i> The Application of a Discrete Rate Approach to Traffic Flow Simulation <i>Aleksey Latkov, Polina Shamshina</i> Research of Call-Centre Operation Indices on the Bases of Queuing Theory and Simulation Models <i>Eugene Kopytov, Aivars Muravjovs</i> Supply Chain Simulation in ExtendSim Environment <i>Sergey V. Anfilets, Vasilij N. Shuts</i> Artificial Neural Networks for Adaptive Management Traffic Light Objects at the Intersection
11.30–12.00	Coffee Break		

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #4 (Aud. 223)
12.00–13.30	<p align="center">Session 7</p> <p align="center">Intelligent Transport Systems (Electronics)</p> <p align="center">Moderators: <i>Valery Kutev, Boris Tsilker</i></p>	<p align="center">Session 2</p> <p align="center">Statistical Methods and their Applications</p> <p align="center">Moderators: <i>Alexander Andronov, Viktor Lymkis</i></p>	<p align="center">Session 4</p> <p align="center">Transport and Business Logistics</p> <p align="center">Moderators: <i>Dalē Dzemydienē, Alexander Stetjuha</i></p>
	<ol style="list-style-type: none"> 1. <i>Takhir Mamirov</i> Synthesis of Duo-Channel Even-Order Phase Filters 2. <i>Yury A. Krasnitsky</i> Potential Accuracy of Estimation of Earth-Ionosphere Waveguide Parameters through Delays of Reflected Waves 3. <i>Alexander Krainyukov, Valery Kutev, Daniil Opolchenov</i> Reconstruction of the Roadway Inner Structure Electro-Physical Characteristics 4. <i>Aleksey Latkov, Nikita Skabcov, Yury Svirchenkov</i> The Problem of E-Mail Gateway Protection System 	<ol style="list-style-type: none"> 1. <i>Dmitry Pavlyuk</i> Regional Tourism Competition in the Baltic States: A Spatial Stochastic Frontier Approach 2. <i>Nicholas A. Nechval, Konstantin N. Nechval, Maris Purgailis, Uldis Rozevskis, Vladimir F. Strelchonok, Juris Krasts, Gundars Berzins, Kaspars Cikste</i> Modified Approaches to Pattern Recognition via the Fisher Discriminant Ratio 3. <i>Viktors Savonins</i> The Research of Optimisation Criterion, Based on Cluster Centroids and Its Applicability for High Dimensionality Data Clustering 	<ol style="list-style-type: none"> 1. <i>Rostislav Kopitov</i> Enhancing Management Reliability: Undertaking the Responsibility of Business 2. <i>Nadezhda Novozhilova</i> Use of SWOT-Analysis for Insurer Risk Manager 3. <i>Nataly Podolyakina</i> Analysis of the Factors Influencing Decision-Making on Organising Enterprise Own Accounting Service or Signing Contracts for Accounting Services to Decrease the Accounting Risks Level 4. <i>Olga Girvica</i> Optimisation of the Supply Chain Process for the Logistics Centre
13.30–14.30	Lunch		

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #4 (Aud. 223)
14.30–16.30	<p>Workshop “COST actions of Transport and Urban Development domain in TTI”</p> <p>Moderator: <i>Igor Kabashkin</i></p>		<p>Session 4 Transport and Business Logistics</p> <p>Moderators: <i>Darius Bazaras, Rostislav Kopitov</i></p>
	<ol style="list-style-type: none"> 1. <i>Irina Yatskiv</i>, Review of COST actions of Transport and Urban Development domain in TTI” 2. <i>Alexander Grakovski, Alexander Murza</i> Analysis and Development of Segmentation Methods Based on Video Surveillance Data for Images of Transport Vehicles Detection (in the frame COST 804) 3. <i>Mihails Savrasovs, Arnis Rudzitis</i> Macroscopic Transport Model Data 3D Visualisation Using KML (in the frame COST 801) 4. <i>Kristaps Grinbergs, Nadezda Kolmakova</i> 3D Model for Human Evacuation from TTI Buildings using VISSIM Pedestrians Module Software (in the frame COST 801) 		<ol style="list-style-type: none"> 1. <i>Roman Zaharov</i> Organizational Structure Evaluation Mechanisms Based on Classification Features 2. <i>Alexander Stetjuha</i> Possibilities of Using the Econometric Methods in Forming the Tariffs for Road Transportation 3. <i>Alla Serjogina, Victoria Belihina</i> The Econometric Analysis of Merges and Absorption Processes in Latvia 4. <i>Lyudmila Baranova, Alexander Medvedev</i> Analysis of Traffic Flows on the Border Latvia (EU) and Countries of CIS