



PROGRAMME

of the 9th International Conference

**“RELIABILITY and STATISTICS in
TRANSPORTATION and COMMUNICATION
(*RelStat'09*)”**

21–24 October 2009. Riga, Latvia

Transport and Telecommunication Institute

Lomonosova 1, 9-floor building

<http://RelStat.tsi.lv>

PROGRAMME

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“Reliability and Statistics in Transportation and Communication” (RelStat’09)

21–24 October 2009. Riga, Latvia
Transport and Telecommunication Institute
Lomonosova 1, 9-floor building

Date	Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #3 (Aud. 100)	Hall #4 (Aud. 710)
21.10. 2009	18.00-20.00	Registration			
	19.00	Welcome Party			
22.10. 2009	9.00–14.00	Registration			
	10.00–12.30	Opening and Plenary Sessions			
	12.30–14.00	Lunch			
	14.00–15.40	Parallel Sessions			
		Statistical Methods and their Applications - 1	Intelligent Transport Systems	Transport and Business Logistics - 1	
	15.40–16.10	Coffee Break			
	16.10–18.00	Parallel Sessions			
		Statistical Methods and their Applications - 2	Aviation	Transport and Business Logistics - 2	
23.10. 2009	10.00–10.40	Tutor Lecture			
	10.40–11.10	Coffee Break			
	11.10–13.00	Parallel Sessions			
		Statistical Methods and their Applications - 3	Transport Systems - 1		Workshop “COST actions of Transport and Urban Development domain in Latvia”
	13.00–14.00	Lunch			
	14.00–15.40	Parallel Sessions			
		Simulation: Practical Issues	Transport Systems - 2		Workshop of the project “Development of the model of Europe-Asia multimodal corridor intelligent transport system for optimization of Latvia- Belarus international logistics chain (TransLaB)”
	15.40–16.10	Coffee Break			
16.10–18.00	Applications of Mathematical Methods to Logistics and Business	Intelligent Transport Systems (Electronics)		Workshop of the project “Development of the model of Europe-Asia multimodal corridor intelligent transport system for optimization of Latvia- Belarus international logistics chain (TransLaB)”	
	19.00	Dinner (Restaurant “LIDO”)			
24.10. 2009	10.00–12.00	Old Riga Walking Tour			

WEDNESDAY, OCTOBER 21

18.00–20.00	<i>Registration</i>
19.00	<i>Welcome Party</i>

THURSDAY, OCTOBER 22

9.00–14.00	<i>Registration</i>
10.00–12.30	<i>Open Session</i> <i>Plenary Session</i> – Moderators: <i>Igor Kabashkin, Eugene Kopytov</i> <ul style="list-style-type: none">• <i>Victor Kashtanov</i> The Controlled Semi-Markov Processes in Problem• <i>Igor Kabashkin, Hans-Jörg Lotter</i> Innovative Virtual European Transport Training Agency• <i>Dovilė Ulinskaitė, Romualdas Kliukas, Olegas Prentkovskis, Alfonsas Daniūnas, Valerija Bernotienė</i> The Popularity of Study Programmes in Aviation Area among the Applicants to Lithuanian Higher Schools
12.30–14.00	<i>Lunch</i>
14.00–15.40	<i>Parallel Sessions</i>
15.40–16.10	<i>Coffee Break</i>
16.10–18.00	<i>Parallel Sessions</i>

FRIDAY, OCTOBER 23

10.00–10.40	<i>Tutor Lecture</i> <ul style="list-style-type: none">• <i>Yury Toluyew</i> Application of Engineering Mathematics and Operations Research to Solve Modern Logistics Problems
10.40–11.10	<i>Coffee Break</i>
11.10–13.00	<i>Parallel Sessions</i>
13.00–14.00	<i>Lunch</i>
14.00–15.40	<i>Parallel Sessions</i>
15.40–16.10	<i>Coffee Break</i>
16.10–18.00	<i>Parallel Sessions</i>
19.00	<i>Dinner (Restaurant “LIDO”)</i>

SATURDAY, OCTOBER 24

10.00–12.00	<i>Old Riga Walking Tour</i>
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THURSDAY, OCTOBER 22

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #3 (Aud. 100)
14.00–15.40	<p style="text-align: center;">Session 2 Statistical Methods and their Applications Moderators: <i>Alexander Andronov, Irina Yatskiv</i></p>	<p style="text-align: center;">Session 3 Intelligent Transport Systems Moderators: <i>A. Grakovski, Gabriel Nowacki</i></p>	<p style="text-align: center;">Session 4 Transport and Business Logistics Moderators: <i>Ramūnas Palšaitis, Rostislav Kopytov</i></p>
	<p>On a Model of Nonrecurrent Flow of Claims. <i>Alexander Andronov</i></p> <p>Event Simulation for Reliability and Functional Analysis of Discrete Transport Systems. <i>Tomasz Walkowiak, Jacek Mazurkiewicz</i></p> <p>Analysis Duplex Polling System by Means of Power-Series Algorithm. <i>Vladimir Vishnevsky, Olga Semenova</i></p> <p>Computation of Unloading Time for Time-Sharing Service Process with Readjustments. <i>Andrey Zorine</i></p> <p>Reliability of Series of Parallel Systems with Defects. MinMaxDM Distribution Family Application to Composite Strength Analysis. <i>Yu. Paramonov, J. Andersons, M. Kleinhofs</i></p> <p>Asymptotic Analysis of Disconnection Probabilities in Random Networks with High Reliable Arcs. <i>G.Sh. Tsitsiashvili, A.S. Losev</i></p>	<p>The Analysis of Possibility of Acoustic Sensors Application for Moving Road Vehicles Detecting. <i>A. Grakovski, V. Ovchinnikov, S. Kamenchenko</i></p> <p>Some Problems of the European Electronic Toll Service Interoperability. <i>Gabriel Nowacki, Anna Niedzicka</i></p> <p>Timetable Information Systems to Find Optimal Travel on Public Transport. <i>Vladimir Vishnevsky, Roman Zhelezov</i></p> <p>The Structure of Knowledge Objects for Knowledge Representation Models in the Intellectual Transport Systems. <i>Leonid Kremer</i></p> <p>Improvement of Railway Safety by Applying the Advanced Technologies. <i>Aldona Jarasuniene</i></p>	<p>Logistics Situation in Lithuania – Revisers’ Point of View. <i>Darius Bazaras, Ramūnas Palšaitis</i></p> <p>Present Situation and Perspectives of Heavy Goods Traffic in Lithuania. <i>Ramūnas Palšaitis, Artūras Petraška</i></p> <p>Development of Requirements towards Business by Its Participants as Limitations Applicable to Individual Parameters of Company’s Performance. <i>Rostislav Kopytov, Irina Pyasecka</i></p> <p>Enhancing Business Reliability: Improving Value-Based Management by Measuring Investment Attractiveness. <i>Rostislav Kopitov</i></p> <p>Some Methods of Distributed Data Base Reliability Control in Logistics Information Systems. <i>Eduard Zinovjevs, Genadijs Gromovs</i></p>
15.40–16.10	Coffee Break		

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #3 (Aud. 100)
16.10–18.00	<p align="center">Session 2 Statistical Methods and their Applications Moderators: <i>Irina Yatskiv, Victor Lyumkis</i></p>	<p align="center">Session 8 Aviation Moderators: <i>Eugene Kopytov, Yu. Paramonov</i></p>	<p align="center">Session 4 Transport and Business Logistics Moderators: <i>Alexander Stetjuha, Darius Bazaras</i></p>
	<p>Optimal Sampling Step Selection for Superposition of Random Fluctuations with Nonfinitary Spectrum. <i>Valery Nikolsky</i></p> <p>Optimisation of Life Test Sampling Plans. <i>Konstantin N. Nechval, Nicholas A. Nechval, Maris Purgailis, Uldis Rozevskis, Vladimir F. Strelchonok, Juris Krasts, Gundars Berzinsh, Max Moldovan</i></p> <p>Finding Predictive Distributions and Their Applications. <i>Konstantin N. Nechval, Nicholas A. Nechval, Maris Purgailis, Uldis Rozevskis, Vladimir F. Strelchonok, Juris Krasts, Gundars Berzinsh, Max Moldovan</i></p> <p>Development of the Indicator of Service Quality at Riga Coach Terminal. <i>Irina Yatskiv, Vaira Gromule, Nadezda Kolmakova, Irina Pticina</i></p> <p>Development and Analysis of Logistics Performance Indicator Based on Multivariate Statistical Analysis. <i>Irina Yatskiv, Natalya Lazareva</i></p>	<p>Spatial Competition for Passengers and Its Influence on Efficiency of European Airports. <i>Dmitry Pavlyuk</i></p> <p>Fatigue-Prone Airframe Inspection Program Control. <i>Yu. Paramonov, A. Kuznetsov</i></p> <p>Diagnostics Models in Expert Systems of Measuring the Status Condition of the Aircraft Power Plants. <i>Eugene Kopytov, Vladimir Labendik, Sergey Yunusov</i></p> <p>Development of Meta-Model for ATC Service Processes by Usage of Multidimensional Modelling Method. <i>Jörg Kundler</i></p> <p>Method of Automatic Balloon Coordinates Determination Using the Correlation Extreme System. <i>Vladimir Kniazev</i></p> <p>Research and Analysis of Anomalous Magnetic Field of Earth's Statistical Descriptions in High Geographical Latitudes. <i>Vladimir Kniazev</i></p>	<p>Price Discrimination as the Crisis Impact Damper. <i>Alexander Stetjuha</i></p> <p>Insurer's Risk Management for Financial Stability Support. <i>Nadezhda Novozhilova</i></p> <p>Business Strategy Development in View of Entrepreneurial Activity. <i>Nataly Podolyakina</i></p> <p>Use of Simulation Modelling for Support of Decision Making for the Purpose of Introducing New Product to the Market. <i>Lev Faingloz, Mihail Savrasov, Sergey Fedorov, Boris Leibenzon, Elena Sadovnikova</i></p> <p>Application of the Agent-Based Simulation Approach to the Bank Department Functioning Analysis. <i>Elena Yurshevich, Aleksandra Kalna, Andris Kalns</i></p> <p>Increasing the Company's Intellect: Improving Managerial Principles' Methodology by Using Operational Definitions. <i>Rostislav Kopitov</i></p>

FRIDAY, OCTOBER 23

Time	Hall #1		
10.00–10.40	Tutor Lecture <i>Yury Toluyew. Application of Engineering Mathematics and Operations Research to Solve Modern Logistics Problems</i>		
10.40–11.10	Coffee Break		
Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #4 (Aud. 710)
11.10–13.00	Session 2 Statistical Methods and their Applications Moderators: <i>Yu. Paramonov, Victor Lyumkis</i>	Session 1 Transport Systems Moderators: <i>Genadijs Gromovs, Alexander Medvedev</i>	Workshop “COST actions of Transport and Urban Development domain in Latvia” Moderator: <i>Igor Kabashkin</i>
	Numerical Realization Logit and Probit Regressions for the Grouped Data. <i>Victor Lyumkis, Elena Kozmina</i> Stochastic Models of Data Flows in the Telecommunication Networks. <i>Yelena Revzina</i> The Econometric Analysis of the Museum Audience of the Open-Air Museum in Poland Depending on the Weather Factors. <i>Kazimierz Marciniak, Aleksandra Mrela,</i> Intelligent Agents’ Implementation for Study Process Quality Performance Indicators’ Statistical Analysis. <i>Nadezda Fila, Boriss Misnevs</i> Surveillance Data Regression Analysis. <i>Yekaterina Trofimova</i> Forecasting Network Traffic: A Comparison of Neural Networks and Linear Models. <i>Irina Klevecka</i> Estimating of the Survival Function with Doubly Censored Data. <i>Vjacheslav V. Ageev, Mikhail S. Tikhov</i>	Maintenance of Rolling Stock Serviceable Condition as the Factor for Providing of Traffic Regularity. <i>Alexander Medvedev, Nikolai Vladimirov, Sergey Konopiev, Yuri Cvetkov, Julia Lomza</i> The Research into Methodology for Evaluation of Transport Infrastructure Investments. <i>Andrius Jaržemskis, Vytautas Jaržemskis</i> Analytical Planning of Transport System. Aspect of Algorithm. <i>Victor Siperkovsky</i> Public Transport Accessibility and Residential Land Value: a Case Study of Riga. <i>Dmitry Pavlyuk</i>	COST – European Cooperation in the Field of Scientific and Technical Research. <i>Maija Bundule, Latvian national coordinator of COST programme</i> Transport Research and Urban Development in Latvia. <i>Igor Kabashkin, Latvian national coordinator of COST Transport and Urban Development domain</i> TU0602 Action. Land Management for Urban Dynamics. <i>Inese Trusina</i> TU0701 Action. Improving the Quality of Suburban Building Stocks. <i>Diana Bajare</i> TU0801 Action. Semantic Enrichment of 3D City Models for Sustainable Urban Development. <i>Irina Yatskiv</i> TU0804 Action. Survey Harmonisation with New Technologies Improvement. <i>Irina Yatskiv</i>
13.00–14.00	Lunch		

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #4 (Aud. 710)
14.00–15.40	<p align="center">Session 9 Simulation: Practical Issues</p> <p>Moderators: <i>Alexander Krivchenkov, Yu.N. Shunin</i></p>	<p align="center">Session 1 Transport Systems</p> <p>Moderators: <i>Genadijs Gromovs, Alexander Medvedev</i></p>	<p align="center">Workshop of the project “Development of the model of Europe-Asia multimodal corridor intelligent transport system for optimization of Latvia-Belarus international logistics chain (TransLaB)”</p> <p align="center">Moderator: <i>A.Grakovski</i></p>
	<p>Microscopic Discrete Event Urban Traffic Model Validation Using Simulation. <i>Emmanuel López-Neri</i></p> <p>Theoretical Simulations of Nanoelectronic Devices: Quantum Dots, Nanowires and Carbon Nanotubes. <i>Yu.N. Shunin, Yu.F. Zhukovskii, V.I. Gopeyenko, N. Shunina</i></p> <p>Simulation Models of Reliability Estimation of Information Systems. <i>Ravil I. Muhamedyev</i></p> <p>Simulation for Measuring Insulation Resistance in the On-Board Power Supply System. <i>Alexander Krivchenkov, Sergei Lavrov</i></p> <p>The Creation of Models of Adjustable Crossroads on GPSS. <i>S.V. Anfilets, V.N. Shut</i></p> <p>Internet Automated Design System of Control Automatics of Schemes. <i>Nikolay Bogdanov, Diana Semjina</i></p>	<p>Problems of Transport Ecology and Analysis of Ecological Statistics of Latvia. <i>Stanislav Grishin, Oleg Schiptsov</i></p> <p>New Methods and Technical Tools for Processing of Big Data Base on Trains Operations. <i>Victor Gretsov</i></p> <p>Experience of Forecasting of Accident Rate on Latvian Railway Transport. <i>A. Melikyan</i></p> <p>The General Conclusion of Diagnosing Models of Shipping Companies Financial State for Their Functioning Reliability. <i>Rostislav Kopitov, Natalja Dubko</i></p>	<p>Modern methods and tools for traffic flows survey. <i>A.Grakovski, S.Kamenchenko, V.Ovchinnikov, A.Ressin</i></p> <p>Riga-Minsk Transport Corridor Simulation Model Development. <i>Irina Yatskiv, Mihail Savrasov</i></p> <p>The Analysis of Transport Flows Dynamics in the International Transport Corridor "Latvia-Belorussia" in 2008-2009. <i>A.Medvedev, A.Grakovski, I.Laurena, E.Zila, L.Baranova</i></p> <p>The Development of System of Road Traffic Safety Improvement in Accident Seats of Urban Areas. <i>Denis Kapuskij</i></p>
15.40–16.10	Coffee Break		

Time	Hall #1 (Aud. 130)	Hall #2 (Aud. 230)	Hall #4 (Aud. 710)
16.10–18.00	<p style="text-align: center;">Session 6 Applications of Mathematical Methods to Logistics and Business</p> <p>Moderators: <i>Sh.E.Guseynov, Vladimir Labeev</i></p>	<p style="text-align: center;">Session 7 Intelligent Transport Systems (Electronics)</p> <p>Moderators: <i>V. Kutev, Boris Tsilker</i></p>	<p style="text-align: center;">Workshop of the project “Development of the model of Europe-Asia multimodal corridor intelligent transport system for optimization of Latvia-Belarus international logistics chain (TransLaB)”</p> <p>Moderator: <i>A. Grakovski</i></p>
	<p>Investigation of the Mathematical Model for Mutual Acquittance of Accounts Payable and Accounts Receivable. <i>Sh.E.Guseynov, A.V.Berezhnoy</i></p> <p>About Mathematical Apparatus Choice for Research of Dynamics of Exhaust Gases in City Atmosphere. <i>Stanislav Grishin</i></p> <p>Analysis of Probabilistic Models of Communication Networks. <i>A.N. Tuenbaeva, A.A. Nazarov</i></p> <p>Strategic Capacity Planning Using Stock Control Model. <i>Arnoldina Pabedinskaitė</i></p> <p>Investigation of Non-Determined Urban Traffic Flow in the Presence of "Intellectually-Directed" Forces. <i>A.V.Berezhnoy, K.I.Yakimov, Sh.E.Guseynov</i></p>	<p>Filter and Matrix Structure Algorithms of Signal Prediction. <i>Mikhail Belihin</i></p> <p>Numerical Algorithms to Performance Analysis of Multi-Parametric CAC in Multi-Service Cellular Wireless Networks. <i>Agassi Melikov, Mehriban Fattakhova</i></p> <p>Coverage Ensuring for Wireless Network Service Area with Obstacles. <i>Boris Tsilker, Vladimir Pyatkov</i></p> <p>Pseudocepstral Analysis of Electromagnetic Transients Using Empirical Mode Decomposition. <i>Yury A. Krasnitsky</i></p> <p>Influence of Genetic Algorithm Parameters on Solution of Inverse Structural Problem for Radar Subsurface Probing. <i>A. Krainyukov, V. Kutev, D. Opolchenov</i></p>	<p>Highway Capacity Determination for Transportation Process Efficiency Evaluation. <i>Yury Sikerzhitsky, Marina Pliss</i></p> <p>Evaluation of the Transportation Process Efficiency According to the Time Interval the Vehicle Moves Along the Traffic Artery. <i>Marina Petrunina, Yury Sikerzhitsky</i></p> <p>Adaptation to the External Environment as a Way to Optimise the Logistics Processes at the Enterprise. <i>Raymond Subotjalo, Elina Kreipane</i></p> <p>Business Reliability Improving by Using the Organization Designing Methodology. <i>Romans Zaharovs</i></p>