

BalticDB&IS 2012

July 8

16.00-19.00 Registration

Gedimino prospektas 3 (main street of Vilnius, near Vilnius Cathedral)

18.00-18.45 Excursion to Vilnius University Library

(Meeting point – the main entrance to Vilnius University, Universiteto str. 3)

19.00-21.00 Welcome party

University Café in the Grand Courtyard of Vilnius University, Šv. Jono str. 10

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8.00-9.30 Registration. Gedimino prospektas 3 (main street of Vilnius, near Vilnius Cathedral)

9.30-10.30 Opening Ceremony of the 10th Jubilee BalticDB&IS Conference (Room 209).

Chair Albertas ČAPLINSKAS

Welcome Address Speeches by Lithuanian Academy of Science, Vilnius University and General Chair Prof. Gintautas DZEMYDA

Invited Keynote Speech by Prof. Janis A. BUBENKO Jr. (Royal Institute of Technology, Stockholm, Sweden).

Reminiscence on the History of BalticDB&IS International Conferences by PC Co-chair Prof. Olegas VASILECAS

Statistics of the Conference (Information of Organizing Committee)

10.30-12.00 *Exponential Growth of ICT: how Long Can It Last* (Room 209).

Invited Speech by Prof. Arne SØLVBERG (Norwegian University of Science and Technology, Norway).

Chair Janis GRUNDSPENKIS

12.00-12.30 Coffee break

12.30-14.30 Session "*Databases I*" (Room 209).

Chair Audronė LUPEIKIENĖ

1. *A Variability Model for Query Optimizers* (30 min.)

Michael SOFFNER, Norbert SIEGMUND, Marko ROSENMÜLLER, Janet FEIGENSPAN (Otto-von-Guericke-Universität Magdeburg, Germany), Thomas LEICH (Metop GmbH, Germany), Gunter SAAKE (Otto-von-Guericke-Universität Magdeburg, Germany).

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2. *Workload-Based Heuristics for Evaluation of Physical Database Architectures* (20 min.).
Andreas LÜBCKE, Martin SCHÄLER, Veit KÖPPEN,
Gunter SAAKE (Otto-von-Guericke-Universität Magdeburg, Germany).
3. *GeoLoc: Robust Resource Allocation Method for Query Optimization in Data Grid Systems* (30 min.).
Igor EPIMAKHOV, Abdelkader HAMEURLAIN, Franck MORVAN
(Institut de Recherche en Informatique de Toulouse IRIT, Paul Sabatier University, France).
4. *Multiple-Site Distributed Spatial Query Optimization using Spatial Semijoins* (20 min.).
Wendy OSBORN, Saad ZAAMOUT (University of Lethbridge, Canada).

12.30-14.30 Session “Data Mining and Optimisation in IS I” (Room 211).

Chair Gintautas DZEMYDA

1. *Mining Logs for Long-Term Patterns* (30 min.).
Boris NOVIKOV, Elena MIKHAYLOVA, Ekaterina IVANNIKOVA, Alice PIGUL (Saint Petersburg State University, Russian Federation).
2. *Combining Data Mining Technique and Query Frequencies for Automatic Selection of Indexes in Data Warehouses* (30 min.).
Benameur ZIANI (UATL, Algeria),
Youcef OUINTEN (University of Laghouat, Algeria).
3. *On Proving the Concept of an Ontology Aided Software Refactoring Tool* (30 min.).
Janari PÕLD, Tarmo ROBAL, Ahto KALJA (Tallinn University of Technology, Estonia).
4. *Data Mining Applications In Healthcare Theory vs Practice* (30 min.).
Olegas NIAKŠU, Olga KURASOVA (Vilnius University, Lithuania).

12.30-14.30 Doctoral Consortium. Session I. (Room 210).

Chair Dalē DZEMYDIENĒ

1. Jānis DĀBOLIŅŠ (Rigas Technical University, Latvia).
Trends of the Usage of Adaptive Learning in Intelligent Tutoring Systems.

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2. Tomas GRIGALIS (Vilnius Gediminas Technical University, Lithuania). *Towards Automatic Structured Web Data Extraction System*
3. Sandra SVANIDZAITĖ (Vilnius University, Lithuania). *A Comparison of SOA Methodologies Analysis & Design Phases.*
4. Laura SAVIČIENĖ (Vilnius University, Lithuania). *Operationalization of Norms in Aircraft Approach/Departure Decision*

14.30-15.30 Lunch

15.30 -17.30 Session "Databases II" (Room 209).

Chair Raimundas MATULEVIČIUS

1. *Advanced OWL 2.0 Ontology Visualization in OWLGrEd* (30 min.).
Kārlis ČERĀNS, Renārs LIEPIŅŠ, Jūlija OVČIŅNIKOVA,
Arturs SPROGIS (Institute of Mathematics and Computer Science,
University of Latvia, Latvia).
2. *Cost Models for Approximate Query Evaluation Algorithms* (20 min.).
Oxana DOLMATOVA, Anna YARYGINA, Boris NOVIKOV (Saint
Petersburg State University, Russian Federation).
3. *Processing Multiple Databases in the Estonian Water Information
System* (20 min.).
Vladimir VIIES (Tallinn University of Technology, Estonia), Peeter
ENNET (EEIC, Estonia), Jaan AIGRO, Hannes KINKS, Robert
KULLAMAA, Ott Madis OZOLIT, Ain SAL (Tallinn University of
Technology, Estonia).
4. *Hypermodelling Live - OLAP for Code Clone Recommendation* (20
min.).
Tim FREY, Veit KOEPPEN (Otto-von-GUERICKE-(Universität
Magdeburg, Germany).
5. *Efficient Subset and Superset Queries* (20 min.).
Iztok SAVNIK (University of Primorska, Faculty of Mathematics,
Science and Information Technologies, Slovenia).

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15.30-18.30 Session “Business Modeling” (Room 211).

Chair Ahto KALJA

1. Formal Analysis of Problem Domain Workflows (30 min.).
Uldis DONINS (Riga Technical University, Latvia).
2. Towards Human-Executable Business Process Modeling (30 min.).
Janis BARZDINS, Edgars RENCIS, Agris SOSTAKS (University of Latvia, Latvia).
3. Integration of Business Modeling and IT Modeling (30 min.).
Janis BICEVSKIS, Girts KARNITIS, Jana Cerina-BERZINA (University of Latvia, Latvia).
4. Traversal and Relations Discovery among Business Entities and People using Semantic Web Technologies and Trust Management (30 min.).
Dejan LAVBIČ, Slavko ŽITNIK, Lovro ŠUBELJ, Aleš KUMER, ALJAŽ ZRNEC, Marko BAJEC (University of Ljubljana, Slovenia).
5. Formal Specifications of Topological Relations (30 min.).
Erika ASNINA, Janis OSIS, Asnate JANSONE (Riga Technical University, Latvia).
6. Using Functional Characteristics to Analyze State Changes of Objects (30 min.).
Uldis DONINS, Janis OSIS, Erika ASNINA, Asnate JANSONE (Riga Technical University, Latvia).

15.30-18.00 Doctoral Consortium . Session II (Room 210).

Chair Hele-Mai HAAV

1. Anton BYKAU (Belarusian State University of Informatics and Radioelectronics, Republic of Belarus).
Probabilistic Networks Basis Criteria of Quality Assurance.
2. Yauhen KLIMIANKOU (Belarusian State University of Informatics and Radioelectronics, Republic of Belarus). Design and Implementation of the Heterogeneous Multikernel Operating System.
3. Ramūnas DZINDZALIETA (Vilnius University, Lithuania).
SIP Protocol as a Communication Bus to Control Embedded Devices.

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4. Jolanta MILIAUSKAITĖ (Vilnius University, Lithuania).
Quality of Service: Concept Analysis.
5. Marius ŠAUČIŪNAS (Vilnius University, Lithuania). Automated eContract Negotiation in Web Service Environment: Electronic Contract Management Aspects.

19.00 City Sight Tour

20.00-22.00 Steering Committee Meeting

July 10

- 9.00-10.30** Viable Systems Model in Information Systems Development.
Invited Speech by Prof. Māriete KIRIKOVA (Riga Technical University, Latvia) (Room 209).
Chair Marko BAJEC

10.30-11.00 Coffee break

11.00-13.00 Session “Data Mining and Optimisation in IS II” (Room 211).
Chair Olga KURASOVA

1. The Influence of Data Quality on Clustering Outcomes (30 min.).
Elena SIVOGOLOVKO (Russian Federation).
2. On Multi-Objective Optimization Aided Visualization of Graphs Related to Business Process Diagrams (30 min.).
Vytautas JANČAUSKAS (Vilnius University, Lithuania), Giedrius KAUKAS (ORGSOFT, Lithuania), Antanas ŽILINSKAS (Vilnius University, Lithuania), Julius ŽILINSKAS (Vilnius University, Lithuania).
3. Visualization of Graph Structures with Magnetic-Spring Model and Color-Coded Interaction (30 min.).
Vitaly ZABINIAKO (Riga Technical University, Latvia).
4. Applying User Domain Model to Improve Web Recommendations (30 min.).
Tarmo ROBAL, Ahto KALJA (Tallinn University of Technology, Estonia).

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11.00-13.00 Session “Cloud Computing and e-Service” (Room 209).

Chair Janis BIČEVSKIS

1. Mobile Agents for Integrating Cloud-Based Business Processes with On-Premises Systems and Devices (30 min.).
Janis GRUNDSPENKIS, Antons MISLEVICS (Riga Technical University, Latvia).
2. A Semantic Method of Automatic Composition of E-government Services (30 min.).
Riina MAIGRE, Pavel GRIGORENKO, Hele-Mai HAAV, Ahto KALJA (Tallinn University of Technology, Estonia).
3. Communication Channel Choice between Enterprises and Government (30 min.).
Kristiina KINDEL, Urve VENESAAR, Merli REIDOLF (Tallinn University of Technology, Estonia).
4. Electronic Archive Information System (20 min.).
Saulius RAGAIŠIS, Adomas BIRSTŪNAS, Antanas MITAŠIŪNAS, Arunas STOČKUS (Vilnius University, Lithuania).

13.00-14.00 Lunch

15.00-19.00 Round Trip to Kernavė

19.00-21.00 Dinner (Cafe “Kerniaus Baras”, Senovės str. 21, Kernavė)

July 11

10.00-12.00 Session “Software Evaluation and Testing” (Room 209).

Chair: Juris BORZOVS

1. An Evaluation Framework for Software Test Management Tools (30 min.).
Evari KOPPEL, Raimundas MATULEVIČIUS (University of Tartu, Estonia).
2. Software Self-Testing (30 min.).
Edgars DIEBELIS (Datorikas Instituts DIVI, Latvia),
Janis BICEVSKIS (University of Latvia, Latvia).

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3. Performance Measurement Framework with Indicator Life-cycle Support (30 min.).
Aivars NIEDRITIS, Janis ZUTERS, Laila NIEDRITE (University of Latvia, Latvia).
4. Semi-automatic Generation of a Software Testing Lightweight Ontology from a Glossary Based on the ONTO6 Methodology (30 min.).
Guntis ARNICANS, Dainis ROMANS, Uldis STRAUJUMS (University of Latvia, Latvia).

10.00-12.00 Session “Decision Support Systems, Norms, and Reasoning” (Room 211).

Chair: Saulius MASKELIŪNAS

1. Qualitative Reasoning about Space with Hybrid Logic (30 min.).
Stanislovas NORGĖLA, Julius ANDRIKONIS, Arūnas STOČKUS (Vilnius University, Lithuania).
2. Multi-Layered Architecture of Decision Support System for Monitoring of Dangerous Good Transportation (30 min.).
Dalė DZEMYDIENĖ (Mykolas Romeris University, Vilnius University, Lithuania), Ramūnas DZINDZALIETA (Vilnius University, Lithuania).
3. Modeling Operationalization of Normative Rules in Decision Support for Aircraft Approach/Departure (30 min.).
Laura SAVIČIENĖ (Vilnius University, Lithuania).
4. Formulating the Enterprise Architecture Compliance Problem (30 min.).
Vytautas ČYRAS (Vilnius University, Lithuania),
Reinhard RIEDL (Bern university of Applied Sciences, Switzerland).

12.00-12.30 Coffee break

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12.30-14.30 Session “IS Engineering Tools and Techniques” (Room 209).

Chair: Ivan I. PILETSKI

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1. Handling Server-Side Software Versioning: the "Smart Technology" Approach (30 min.).
Juris IVANOVŠ (Datorikas institūts DIVI, Latvia),
Kriss RAUHVARĢERS (University of Latvia, Latvia).
2. Architectural and Technological Issues in the Field of Building High-Resolution Display Walls (30 min.).
Rudolfs BUNDULIS, Guntis ARNICANS (University of Latvia, Latvia).
3. Specification, Configuration and Implementation of DSL Tool (30 min.).
Arturs SPROĢIS, Janis BARZDINS (University of Latvia, Latvia).
4. Investigation of Data Transfer Capabilities for Heterogeneous Service Support in Critical Mobile Objects Communication Situations (20 min.).
Mindaugas Kurmis (Vilnius University, Lithuania),
Dalė Dzemydienė (Mykolas Romeris University, Lithuania), Arūnas Andziulis (Klaipėda University, Lithuania).

12.30-14.30 Session "Advanced e-Learning Environments and Technologies" (Room 211).

Chair: Mārite KIRIKOVA

1. A Model for Personalized Selection of a Learning Scenario Depending on Learning Styles (30 min.).
Inga ŽILINSKIENĒ, Saulius PREIDYS (Vilnius University, Lithuania) .
2. An Information System to Learn Characteristic Sets of Words and to Examine Knowledge in Statistics (30 min.).
Oskars RASNACS (Riga Stradiņš University, Latvia),
Maris VITINS (University of Latvia, Latvia).
3. Learner Model's Utilization in the e-Learning Environments (30 min.).
Vija VAGALE, Laila NIEDRITE (University of Latvia, Latvia).
4. Methodological Digital Resources: how we Can Help Educators to Find them More Effectively (30 min.).
Svetlana KUBILINSKIENĒ, Valentina DAGIENĒ
(Vilnius University, Lithuania).

14.30-15.30 Closing Ceremony (Room 209)+ Coffee.

Chair Olegas VASILECAS