



# BALTIC DB & IS 2016

12th International Baltic Conference on Databases and  
Information Systems

4-6 July  
University of Latvia  
Riga, Latvia

**Sunday**

**July 3, 2016**

<b>14:30 – 19:00</b>	<b>Registration</b> Foyer, 1st floor, Raiņa bulv. 19	
<b>15:00 – 18:30</b>	<b>Doctoral Consortium</b> Auditorium 13	
<b>15:00 – 16:30</b>	<b>Session I</b> (chair: Audronė Lupeikienė) Auditorium 13	
<b>15:00 – 16:00</b>	<b>Keynote by Albertas Čaplinskas "Theoretical research and theory building in informatics"</b>	
<b>16:00 – 16:30</b>	SQ-Miner: Opinion Mining System to Help in Improving Software Quality	Faiz Ali Shah
<b>16:30 – 17:00</b>	<b>Coffee break</b> Room 345	
<b>17:00 – 18:30</b>	<b>Session II</b> (chair: Uldis Bojārs) Auditorium 13	
<b>17:00 – 17:30</b>	Automatic Extraction of Requirements from Online Open Sources	Huishi Yin
<b>17:30 – 18:00</b>	Overview of Modeling Tools for Execution Models	Viktoria Ovchinnikova
<b>18:00 – 18:30</b>	Modelling Dynamic Enterprise Environment to Maintain Interoperability of Applications	Andrius Valatavičius
<b>19:00 – 21:00</b>	<b>Welcome Party</b> "Daily" Restaurant, Raiņa bulv. 19	

**Monday**

**July 4, 2016**

<b>8:30 – 9:00</b>	<b>Registration</b> Foyer, 1st floor, Raiņa bulv. 19
<b>9:00 – 9:15</b>	<b>Opening</b> Small Hall
<b>9:15 – 10:15</b>	<b>Invited Talk by Gintautas Dzemyda „State of the Art in Visualization of Data”</b> <b>(chair – Hele-Mai Haav)</b> Small Hall
<b>10:15 – 10:40</b>	<b>Coffee break</b> “Daily” Restaurant, Raiņa bulv. 19
<b>10:40 – 12:45</b>	<b>Session I Ontology, Conceptual Modeling and Databases</b> <b>(chair – Mārīte Kirikova)</b> Auditorium 13
	Towards Self-explanatory Ontology Visualization with Contextual Verbalization Renārs Liepiņš, Uldis Bojārs, Normunds Grūzītis, Kārlis Čerāns and Edgars Celms
	Self-service Ad-hoc Querying Using Controlled Natural Language Janis Barzdins, Mikus Grasmanis, Edgars Rencis, Agris Sostaks and Juris Barzdins
	Database to Ontology Mapping Patterns in RDB2OWL Lite Kārlis Čerāns and Guntars Būmans
	OWLRel: Learning Rich Ontologies from Relational Databases Lama Al Khuzayem, Peter McBrien
	Ontology-Driven Scheduling System for Manufacturing Jelena Sanko, Vahur Kotkas
<b>12:45 – 13:30</b>	<b>Lunch</b> “Daily” Restaurant, Raiņa bulv. 19
<b>13:30 – 15:35</b>	<b>Session II Decision Support Systems and Data Mining</b> <b>(chair – Gintautas Dzemyda)</b> Auditorium 13
	Algorithms for Extracting Mental Activity Phases from Heart Beat Rate Streams Alina Dubatovka, Elena Mikhailova, Mikhail Zotov, and Boris Novikov
	Scheduling Approach for Enhancing Quality of Service in Real-Time DBMS Fehima Achour, Emna Bouazizi and Wassim Jaziri
	A Comparative Analysis of Algorithms for Mining Frequent Itemsets Vyacheslav Busarov, Natalia Grafeeva and Elena Mikhailova
	A WebGIS Application for Cloud Storm Monitoring Stavros Kolios, Dimitris Loukadakis, Chrysostomos Stylios, Andreas Kazantzidis and Aleksandr Petunin

	Neural Network Approach to Predict Marine Traffic	Andrius Daranda
<b>15:35 – 15:55</b>	<b>Coffee break</b> “Daily” Restaurant, Raiņa bulv. 19	
<b>15:55 – 18:00</b>	<b>Session III Tools, Technologies and Languages for Model-Driven Development</b> <b>(chair – Ahto Kalja)</b> Auditorium 13	
	Models and Model Transformations Within Web Applications	Sergejs Kozlovics
	Metamodel Specialization for DSL Tool Building	Audris Kalnins and Janis Barzdins
	Models of Event Driven Systems	Zane Bicevska, Janis Bicevskis and Girts Karnitis
	DSML Tool Building Platform in WEB	Arturs Sprogis
	Heuristic Method to Improve Systematic Collection of Terminology	Vineta Arnicanne, Guntis Arnicans and Juris Borzovs
<b>18:00 – 20:00</b>	<b>Guided Tour in Riga Old Town</b> Start from Foyer, 1st floor, Raiņa bulv. 19	

**Tuesday**

**July 5, 2016**

<b>9:00 – 10:00</b>	<b>Invited Talk by Jaak Vilo „State of the Art in Bioinformatics”</b> <b>(chair – Albertas Čaplinskas)</b> Auditorium 13	
<b>10:00 – 11:15</b>	<b>Session IV Linguistic Components of IS</b> <b>(chair – Boris Novikov)</b> Auditorium 13	
	Detection of Multiple Implicit Features per Sentence in Consumer Review Data	Nikoleta Dosoula, Roel Griep, Rick den Ridder, Rick Slangen, Kim Schouten and Flavius Frasincar
	K-Translate -Interactive Multi-System Machine Translation	Matīss Rikters
	Web News Sentence Searching Using Linguistic Graph Similarity	Kim Schouten and Flavius Frasincar
<b>11:15 – 11:35</b>	<b>Coffee break</b> “Daily” Restaurant, Raiņa bulv. 19	
<b>11:35 – 13:40</b>	<b>Session V Information Technology in Teaching and Learning</b> <b>(chair – Tarmo Robal)</b> Auditorium 13	

	The Application of Optimal Topic Sequence in Adaptive e-Learning Systems	Vija Vagale and Laila Niedrite
	Initial Steps towards the Development of Formal Method for Evaluation of Concept Map Complexity from the Systems Viewpoint	Janis Grundspenkis
	An Analysis and Comparison of Adoption of E-learning Systems in Higher Education by Lecturers at Largest Universities in Estonia and Turkey	Fatih Güllü, Rein Kuusik, Kazbulat Shogenov, Mart Laanpere, Yusuf Oysal, Ömer Faruk Sözcü, Zekeriya Parlak
	Data Science: Professional Requirements and Competence Evaluation	Boriss Misnevs, Irina Yatskiv
	The Practical Implementation of Graph Analysis to Monitoring Process of Information System Implementation in School	Alexey Raskin, Natalia Leonova, Oleg Gustun, Ekaterina Dodonova
<b>13:40 – 14:30</b>	<b>Lunch</b> "Daily" Restaurant, Raiņa bulv. 19	
<b>14:40 – 23:00</b>	<b>Trip to Rundale Palace, Social Event</b> Start from Foyer, 1st floor, Raiņa bulv. 19	

## Wednesday July 6, 2016

<b>9:00 – 10:00</b>	<b>Invited Talk by Andris Ambainis „State of the Art in Quantum Computing”</b> <b>(chair – Jaak Vilo)</b> Auditorium 13	
<b>10:00 – 11:15</b>	<b>Session VI Software Testing and Quality Assurance</b> <b>(chair - Audronė Lupeikienė)</b> Auditorium 13	
	A Study on Immediate Automatic Usability Evaluation of Web Application User Interfaces	Jevgeni Marenkov, Tarmo Robal and Ahto Kalja
	Model-Based Testing of Real-Time Distributed Systems	Jüri Vain, Evelin Halling, Gert Kanter, Aivo Anier, and Deepak Pal
	Optimization of University Campus Wireless Network	Edgars Šifers, Anita Jansone, Kapars Lauris
<b>11:15 – 11:35</b>	<b>Coffee break</b> "Daily" Restaurant, Raiņa bulv. 19	
<b>11:35 – 13:15</b>	<b>Session VII Business Process Modeling and Performance Measurement</b> <b>(chair – Jānis Grundspenkis)</b> Auditorium 13	

	The Enterprise Model Frame for Supporting Security Requirement Elicitation from Business Processes	Marite Kirikova, Raimundas Matulevicius and Kurt Sandkuhl
	Knowledge Management Performance Measurement: a Generic Framework	Latifa Oufkir, Mounia Fredj and Ismail Kassou
	A New Approach on Rule and Context Based Dynamic Business Process Simulation	Diana Kalibatiene, Olegas Vasilecas, Titas Savickas, Tadas Vysockis, Vjačeslavs Bobrovs
	A Systematic Literature Review on Dynamic Business Processes	Toma Rusinaite, Olegas Vasilecas, Diana Kalibatiene
<b>13:15 – 13:35</b>	<b>Coffee break</b> “Daily” Restaurant, Raiņa bulv. 19	
<b>13:35 – 15:15</b>	<b>Session VIII Advanced Systems and Technologies</b> <b>(chair – Olegas Vasilecas)</b> Auditorium 13	
	Self-management of Information Systems	Janis Bicevskis, Zane Bicevska and Ivo Oditis
	On the Smart Spaces Approach to Semantic-Driven Design of Service-Oriented Information Systems	Dmitry Korzun
	Host Side Caching: Solutions and Opportunities	Shahram Ghandeharizadeh, Jai Menon, Gary Kotzur, Sujoy Sen, and Gaurav Chawla
	Conclusions from the Evaluation of Virtual Machine Based High Resolution Display Wall System	Rūdolfs Bundulis and Guntis Arnicāns
<b>15:15 – 16:00</b>	<b>Lunch &amp; Closing</b> “Daily” Restaurant, Raiņa bulv. 19	