



21st IEEE Conference on Business Informatics July 15-17, 2019 | National Research University Higher School of Economics, Moscow, Russia

Monday, July, 15 th , 2019					
09:00-10:00	Registration				
10:00-11:45	Opening ceremony (Room 205) KEYNOTE - National Data Governance - Vasily Slishkin KEYNOTE - The Yin Yang of Science & Technology in Business Informatics - Alexander Maedche				
11:45-12:00	COFFEE BREAK (Room 210)				
	Room 205	Room 202	Room 209	Room 214	Room 215
	Track: Business Analytics and Business Data Engineering <i>Chair: Birgit Hofreiter</i>	Track: Enterprise Modelling, Engineering and Architecture <i>Chair: Christian Huemer</i>	Track: Information Management <i>Chair: Fabrizio Amarilli</i>	Workshop: ITSS 2019	Workshop: BI 4.0

12:00-12:20	Utilizing Machine Learning techniques to reveal VAT compliance violations in accounting data <i>Johannes Lahann, Martin Scheid</i>	A Review of the Seven Modelling Approaches for Digital Ecosystem Architecture <i>Asif Gill, Memoona J. Anwar</i>	Exploring the complex relationship between alignment and company's performances <i>Fabrizio Amarilli</i>	Appliances of Smart TV as an IoT device for Industry 4.0 <i>Alexander Anufrienko</i>	COOC: an Agile Change Management Method <i>Thibault Le Grand, Rébecca Deneckere</i>
12:20-12:40	Abusiveness is Non-Binary: Five Shades of Gray in German Online News-Comments <i>Marco Niemann</i>	Decentralized Attestation of Conceptual Models Using the Ethereum Blockchain <i>Felix Härer, Hans-Georg Fill</i>	Strategic Planning and Information Systems Success: Evaluation in Greek SMEs <i>Maria Kamariotou, Fotis Kitsios</i>	Fuzzy Model for Evaluating the Quality of Medical Care <i>Svetlana Begicheva</i>	Artefact Centric Model for Digital Innovation <i>Erik Perjons, Iliia Bider, Paul Johannesson</i>
12:40-13:00	Sharing is Caring - Information and Knowledge in Industrial Symbiosis: A Systematic Review <i>Linda Kosmol</i>	Preconditions for the Use of a Checklist by Enterprise Architects to Improve the Quality of a Business Case <i>Martin van den Berg</i>	Unification and Parallelization of Sequential Information Accumulation Procedures. Information Spaces in Big Data Processing <i>Peter Golubtsov</i>	Applying of RPA in administrative processes of public administration <i>Raissa Uskenbayeva, Zhuldyz Kalpeyeva, Ryskhan Satybaldiyeva, Aiman Moldagulova, Aizhan Kassymova</i>	Design of System for Intelligent Search in Industrial Standards <i>Ekaterina Gosteva, Viacheslav Lanin, Veronika Falaleeva</i>
13:00-14:00	LUNCH ("Brusnika" Cafe)				
14:00-14:20	Predicting the Slide to Long-Term Homelessness: Model and Validation <i>Sandeep Puroo, Monica Garfield, Xin Gu, Prakash Bhetwal</i>	Assessing Organizational Complexity Using Tree-Attribute-Matrix Models <i>Kilian Nickel, Felix Hasenbeck, Uwe Beyer, Oliver Ullrich, Alexander Zimmermann</i>	Assessing IT Business Value using Catalogues <i>Ricardo T Gandelman, Claudia Cappelli, Flavia M Santoro</i>	Formalization of applications for processing in the e-commerce system <i>Raissa Uskenbayeva, Abu Kuandykov, Zhuldyz Kalpeyeva and Aizhan Kassymova</i>	Panel discussion Business Informatics in the Era of Industry 4.0 <i>Chair: Elena Kornyshova, Oscar Pastor</i>

14:20-14:40	Notion of Graph Entanglement and its Application for Stock Market Analysis <i>Alexander Rubchinsky</i>	Toward Dynamic Model Association through Semantic Analytics: Approach and Evaluation <i>Lei Huang, Guang-Jie Ren, Shun Jiang, Eric Liu</i>	Are We Ready to Play in the Cloud? Developing new Quality Certifications to Tackle Challenges of Cloud Gaming Services <i>Sascha Ladewig, Sebastian Lins, Ali Sunyaev</i>	Building an Intelligent Comprehensive Scoring Model Based on Fuzzy Technologies <i>Dmitry Nazarov, Sergey Efremov</i>	<i>Panelists: Saaid Assar, Alexander Anufrienko, Iliia Baider</i>
14:40-15:00	Document-Oriented Geospatial Data Warehouse: An Experimental Evaluation of SOLAP Queries <i>Marcio R. da C. Ferro, Robson Fidalgo, Rogerio Fragoso</i>	The Socio-Net of Things Modelling Framework <i>Amjad Fayoumi, Zakaria Maamar</i>	Using Metamodeling to represent Lean Six Sigma for IT Service Improvement <i>Miles Herrera, Jos van Hillegersberg</i>	Blockchain Technology for Smartphones and Constrained IoT Devices: A Future Perspective and Implementation <i>Konstantin Zhidanov, Sergey Bezzateev, Alexandra Afanasyeva, Mikhail Sayfullin, Sergey Vanurin, Yulia Bardinova, Aleksandr Ometov</i>	
15:00-15:30	COFFEE BREAK (Room 210)				
	Track: General Topic <i>Chair: Jörg Becker</i>	Doctoral Consortium <i>Chair: Oscar Pastor, Hans-Georg Fill</i>	Track: Artificial Intelligence for Business <i>Chair: Jos van Hillegersberg, Carsten Felden</i>		

15:30-15:50	Which Business Information do Decision-Makers need at Work? - Towards a Classification Framework <i>Dennis Riehle, Jonathan Radas</i>	Predictive analytics model to improve decision making for Outcome-Based funding of public universities in South Africa through Big Data <i>Mmatshuene Anna Segooa</i> Transparency as societal ideal in organizations? - Towards a conceptual modeling method in support of designing and evaluating Transparency in Information Systems <i>Mario Friedhelm Nolte</i>	The Potential of Chatbots: Analysis of Chatbot Conversations <i>Mubashra Akhtar, Julia Neidhardt, Hannes Werthner</i>		
15:50-16:10	The Determinants of Credit Cycle and Its Forecast <i>Alexander Karminsky, Natalya Dyachkova, Yulia Kareva</i>		Documents, Topics, and Authors: Text Mining of Online News <i>Mete Sertkan, Julia Neidhardt, Hannes Werthner</i>		
16:10-16:30	The Effects of Mobile Device Usage on Students' Perceived Level of Dialog, Self-Regulated Learning Strategies and E-Learning Outcomes <i>Sean B. Eom</i>		A Fuzzy Clustering Algorithm for Portfolio Selection <i>Flavio Gabriel Duarte, Leandro de Castro</i>		
16:30-16:50	Two-Sided Digital Markets: Disruptive Chance Meets Chicken or Egg Causality Dilemma <i>Jonas Wanner, Christian Janiesch, Carsten Bauer</i>		Towards a general framework on agent-based modeling for industrial symbiosis <i>Luca Fraccascia, Vahid Yazdanpanah, Guido van Capelleveen, Devrim Murat Yazan</i>		

16:50-17:10	Consumer Perceptions of Online Behavioral Advertising <i>Tobias Dehling, Yuchen Zhang, Ali Sunyaev</i>		Effect of Transparency and Trust on Acceptance of Automatic Online Comment Moderation Systems <i>Jens Brunk, Jana Mattern, Dennis Riehle</i>		
18:30-22:00	Welcome Reception (The Pushkin State Museum of Fine Arts, Volkhonka street, 12, Moscow) (guided tour and reception)				
	Tuesday, July, 16th, 2019				
	Room 205	Room 202	Room 209	Room 214	
10:00-11:30	KEYNOTE - Extracting meaning from numbers - <i>Alexey Golosov, Stepan Tomlyanovich</i> KEYNOTE - Smart cities without data. Retail expansion automation - <i>Arnaud Trouset</i>			Workshop: SMART Mechanisms (WSM)	
11:30-12:00	COFFEE BREAK (Room 210)				
	Track: Enterprise Modelling, Engineering and Architecture <i>Chair: Oscar Pastor, Henderik Proper, Hans-Georg Fill</i>	Track: Data-Driven Business Applications <i>Chair: Martin Matzner</i>	Track: Information Management <i>Chair: Markus Westner</i>	Session 1. Planning mechanisms and organizational mechanisms <i>Chair: Vladimir Burkov</i>	

12:00-12:20	A Business Ecosystem Architecture Modeling Framework <i>Roel Wieringa, Wilco Engelsman, Jaap Gordijn, Dan Ionita</i>	How Computer Vision Provides Physical Retail with a Better View on Customers <i>Oliver Nalbach, Dirk Werth, Daniel A Mora Hernandez</i>	Towards Configurable Composite Data Quality Assessment <i>Paolo Ceravolo, Emanuele Bellini</i>	DSS-tool for demand planning: an example of automotive industry <i>Zinaida Avdeeva, Svetlana Kovriga, Ekaterina Fedko</i>
12:20-12:40	Putting AI into Context - Method Support for the Introduction of Artificial Intelligence into Organizations <i>Kurt Sandkuhl</i>	Can Analytics as a Service Save the Online Discussion Culture? - The Case of Comment Moderation in the Media Industry <i>Jens Brunk, Marco Niemann, Dennis Riehle</i>	Information security risks, benefits, and mitigation measures in cloud sourcing <i>Frederik Wulf, Markus Westner, Susanne Strahringer</i>	Tutoring Mechanisms of Business Management <i>Vladimir Tsyganov</i>
12:40-13:00	Managing Strategy in Digital Transformation Context: An Exploratory Analysis of Enterprise Architecture Management Support <i>Mouaad Hafsi, Saïd Assar</i>	Sentiment Analysis of Product Reviews in Russian using Convolutional Neural Networks <i>Sergey Smetanin, Mikhail Komarov</i>	Strategic value creation through big data analytics capabilities: A configurational approach <i>Rogier Van de Wetering, Patrick Mikalef, John Krogstie</i>	Optimal Planning Solution's Simulation For The Active Expertise <i>Nikolay Korgin, Vsevolod Korepanov</i>
13:00-14:00	LUNCH ("Brusnika" Cafe)			
14:00-14:20	Multi-level Modeling as a Language Architecture for Reference Models: On the Example of the Smart Grid Domain <i>Sybren de Kinderen, Monika Kaczmarek-Hess</i>	Track: General Topic <i>Chair: Jörg Becker</i>	Auditability as a design problem <i>Hans Weigand, Philip Elsas</i>	RDS program for optimization problem <i>Olga Kuznetsova, Anastasia Marencova</i>
		An Examination of Task-Technology Fit in Public Administration and Management: A Configurational Approach <i>Patrick Mikalef, Hans Torvatn</i>		

14:20-14:40	A Traceability and Synchronization Approach of the Computational Models of an Enterprise Architecture <i>Jose Rogerio Poggio Moreira, Rita Suzana</i>	Wearable Health Devices in the Workplace: The Importance of Habits To Sustain the Use <i>Stefan Stepanovic, Tobias Mettler, Manuel Schmidt-Kraepelin, Scott Thiebes, Ali Sunyaev</i>	Shadow IT and Business-managed IT: Where Is the Theory? <i>Stefan Klotz</i>	Resource allocation mechanisms for the portfolio of projects with concave utility functions <i>Denis Fedyanin</i>
	Track: Artificial Intelligence for Business <i>Chair: Jos van Hillegersberg, Carsten Felden</i>			
14:40-15:00	Agent-based modelling and simulation of inter-organizational integration and coordination of supply chain participants <i>Natalia N Lychkina, Victor Sergeev</i>	An Adaptive Park Bench System to Enhance Availability of Appropriate Seats for the Elderly: A Safety Engineering Approach for Smart City <i>Marvin Hubl</i>	Open Data Value Network and Business Models: Opportunities and Challenges <i>Fotis Kitsios, Maria Kamariotou</i>	Using Research Benches for Designing Control Systems and Modeling Organizational Mechanism <i>Alexander Shchepkin, Manucher Dorri</i>
15:00-15:30	COFFEE BREAK (Room 205)			
15:30-15:50	Artificial Intelligence Tools for Business Applications: Objective Map of Science and Analysis of Texts <i>Mikhail Kreines, Elena Kreines</i>	App Cost Estimation: Evaluating Agile Environments <i>Ahmed Shams</i>	The European Procurement Dilemma - First Steps to Introduce Data-Driven Policy-Making in Public Procurement <i>Sebastian Halsbenning, Marco Niemann</i>	Session 2. Rating mechanisms and stimulation mechanisms <i>Chair: Alexander Shchepkin, Denis Fedyanin</i>
				Development of a decision support system for commercial real estate managers using RDS <i>Alexander Alekseev, Alexandra Andronova, Varvara Spirina</i>
15:50-16:10	How IT-Related Financial Innovation Influences Bank Risk-	Machine Classification of Pore Space for Hydrocarbon Reservoir Characterization	Track: Information Systems Engineering <i>Chair: Arnon Sturm</i>	Rating and control mechanisms design in the program "Research of Dynamic Systems"

	Taking: Results from an Empirical Analysis of Patent Applications <i>Christian Dietzmann, Rainer Alt</i>	<i>Alla Yu. Vladova, Yury Vladov</i>	Towards combining automatic measurements with self-assessments for personal stress management <i>Fabienne Lambusch, Michael Fellmann, Leonard Pieper</i>	<i>Alexander Alekseev, Anna Salamatina, Tatyana Kataeva</i>
16:30-16:50				Development of software complex personnel assessment in RDS environment <i>Olga Kuznetsova, Anastasia Marencova</i>
16:50-17:10				Application of the matrix rating mechanisms and system cognitive analysis methods at the task of residential real estate conceptual designing <i>Alexander Alekseev, Eldar Galiaskarov, Kristina Koskova</i>
19:00	Conference Dinner («Vremena Goda» restaurant, Gorky Park, Krymsky Val str., 9, p. 20, Moscow)			
Wednesday, July, 17th, 2019				
	Room 205	Room 202	Room 209	
10:00-11:30	KEYNOTE - Continuous business models update during the reengineering of large enterprise <i>- Artem Levchenko</i> KEYNOTE – Digital services in waste management - <i>Artem Sedov, Tatyana Zhuravleva</i>			
11:30-12:00	COFFEE BREAK (Room 205)			

	Track: Business Innovations and Digital Transformation <i>Chair: Kurt Sandkuhl</i>	Track: Business Process Management <i>Chair: Dennis Riehle</i>	Track: Industry 4.0 (Industry Applications) <i>Chair: Christian Dietzmann, Christian Janiesch</i>	
12:00-12:20	Technology Impact Types for Digital Transformation <i>Key Pousttchi, Alexander Gleiß, Benedikt Buzzi, Marco Kohlhagen</i>	Context-aware BPM Using IoT-integrated Context Ontologies and IoT-enhanced Decision Models <i>Rongjia Song, Jan Vanthienen, Weiping Cui, Ying Wang, Lei Huang</i>	Conformance Checking and Classification of Manufacturing Log Data <i>Matthias Ehrendorfer, Juergen-Albrecht Fassmann, Jürgen Mangler, Stefanie Rinderle-Ma</i>	
12:20-12:40	Capability-based Planning of Digital Innovations in Small- and Medium-sized Enterprises <i>David Görzig, Susann Kärcher, Thomas Bauernhansl</i>	What Has Remained Unchanged in Your Business Process Model? <i>Kirill A. Artamonov, Irina Lomazova</i>	A Conceptual Design of a Digital Companion for Failure Analysis in Rail Automation <i>Alexander Wurl, Andreas Falkner, Alois Haselböck, Alexandra Mazak-Huemer</i>	
12:40-13:00	Towards an Early Warning Mechanism for Adaptation Needs of Digital Services <i>Henderik Proper, Kurt Sandkuhl</i>	Towards Tax Compliance by Design: A Decentralized Validation of Tax Processes Using Blockchain Technology <i>Filip Fatz, Philip Hake</i>	Image Mining for Real Time Fault Detection within the Smart Factory <i>Sebastian Trinks, Carsten Felden</i>	
13:00-14:00	LUNCH ("Brusnika" Cafe)			
14:00-14:20	The Critical Role of Hospital Information Systems in Digital Health Innovation Projects	Track: Business Analytics and Business Data Engineering <i>Chair: Vladimir E. Krivonozhko, Alexander Bolotov</i>	Collective Cloud Manufacturing for maintaining diversity in production through digital transformation	

	<i>Tim Scheplitz, Stefanie Kaczmarek, Martin Benedict</i>	Three-Dimensional Visualization for Multidimensional Analysis and Performance Management of Socio-Economic Systems <i>Alexander P. Afanasiev, Vladimir E. Krivonozhko, Andrey V. Lychev, Oleg Sukhoroslov</i>	<i>Matthias Milan Strljic, Oliver H. Riedel, Armin Lechler</i>	
14:20-14:40	IoT-based Energy Management Assistant Architecture Design <i>Aleksey Kychkin, Alexander Deryabin, Elvira Neganova, Vladlena Markvirer</i>	A Recommender System Based on Omni-Channel Customer Data <i>Matthias Carnein, Leschek Homann, Heike Trautmann, Gottfried Vossen</i>		
14:40-15:00	Conceptual Modeling Meets Customer Journey Mapping: Structuring a Tool for Service Innovation <i>Markus Heuchert</i>	Application of Advanced Data Analysis Methods to Cluster the Clinical Pathways in Urban Medical Facilities <i>Elizaveta S. Prokofyeva, Roman Zaytsev, Svetlana Maltseva</i>		
15:00-15:30	COFFEE BREAK (Room 210)			
15:30-15:50		Computational modelling for bankruptcy prediction: semantic data analysis integrating graph database and financial ontology <i>Natalia Yerashenia, Alexander Bolotov</i>		
16:00-16:30	Closing (Room 205)			