

**Предварительная программа конференции  
Preliminary Scientific Conference Program**

# CSIT'2019



October 2–4

Vienna • Austria

# **CSIT'2019**

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Preliminary Program of Workshop

## **Computer Science and Information Technologies**

Vienna, Austria  
October 02 - 04, 2019

Proceedings of the 21<sup>st</sup> International Workshop

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# Preliminary Scientific Conference Program

Main workshop activity will take place in the new “Electrotechnisches Institut” building, Technische Universitaet Wien (TU EI). Address: Gusshausstr, 27-29.

<b>Monday, 30 September</b>		
16:00 – 17:00	Welcome Reception (hotel Asperner Loewe)	
17:00 – 21:00	Vizit to Therme Wien	
<b>Tuesday, 01 October</b>		
09:00	Bus from hotel Asperner Loewe to Laxenburg	
10:00 – 13:00	Round table discussion (IIASA, Laxenburg)	
13:00 – 14:00	Lunch (Laxenburg)	
from 14:00	Excursion ... (AIT? Seestadt?)	
<b>Wednesday, 02 October</b>		
09:00	Departure from hotel (subway)	
09:30-10:00	Registration (TU EI Kontaktraum, 6 <sup>th</sup> floor)	
10:00-10:30	Opening Ceremony of Workshop (TU EI Kontaktraum, 6 <sup>th</sup> floor) Chairwomen Prof. N. I. Yusupova	
	Prof. N. I. Yusupova (Ufa State Aviation Technical University, Ufa, Russia)	Welcome word
	Prof. T. Sauter (Technische Universitaet Wien, Vienna, Austria)	Welcome word
	Representative of the Republic of Bashkortostan in Austria Markus Scheiblhofner	Welcome word
	Dr. Sergey V. Novikov (Acting Rector of Ufa State Aviation Technical University)	Welcome word
	Prof. Andrei V. Melnikov (Ugra Research Institute of Information Technologies, Khanty-Mansiisk Autonomous Okrug, Russia)	Welcome word
10:30 – 11:30	1 <sup>st</sup> Plenary session (TU EI Kontaktraum, 6 <sup>th</sup> floor) Co-chairs: Prof. N. Yusupova	
	Prof. Hannes Wertner	
	Prof. Thilo Sauter	
11:30 – 12:00	Coffee break (TU EI 6 <sup>th</sup> floor)	
12:00 – 14:00	2 <sup>nd</sup> Plenary session (TU EI Kontaktraum, 6 <sup>th</sup> floor)	
	1-2 more professors from Austrian side	
	Andrey V. Melnikov	Use of Topic Modelling for Improvement of Quality in the Task of Semantic Search of Educational Courses
	Valeria V. Gribova	Cloud Infrastructure for Creation of Interpretable Diagnostic Knowledge Bases of Diseases Regardless Their Etiology
	Tatiana I. Mikheeva	The Standard of Location and Visualization of Geo-Objects on Thematic Layers of the Geographic Information System
	Lyudmila V. Massel	Intelligent Decision Support for Assessing of the Energy Sector Impact on Geo-Ecology, Taking into Account the Quality of Life
14:00 – 15:00	Lunch (TU EI Mensa Buffet, groundfloor)	
15:00 – 17:00	Research session «IT Applications» (TU EI Kontaktraum, , 6 <sup>th</sup> floor)	
	Vadim M. Kartak	Balancing Electricity Consumption and User Comfort in Load Management of Electric Tank Water Heaters
	Stefan Wilker	Towards an Evaluation Framework for Indoor Localization using Directional Antennas
	Nafisa I. Yusupova	Models and Methods for Solving Face Recognition Problem

		by Photos
	Nafisa I. Yusupova	Intellectual Decision Support in Complex Socio-Economic Systems
	Tatyana I. Mikheeva, Nikita A. Ostroglazov	Method of Construction of Routes of the Unmanned Aerial Vehicle on the Interactive Electronic Map
	Tatyana V. Sazonova	Cognitive Maps in the Development of the Multi-Dimensional System of Objects' Management for the Manufacturing of Products from Composites
17:00 – 17:30	Coffee Break (TU EI 6 <sup>th</sup> floor)	
17:30 – 19:50	Research session «Digital Transformation» (TU EI Kontaktraum, 6 <sup>th</sup> floor)	
	Alexander S. Geyda	Models and Methods to Estimate Digitalization Success Predictively
	Tatiana I. Mikheeva, Sergey V. Mikheev	Problem-Oriented Stratification of Transport Infrastructure Management
	Alexey Massel	Risk Assessment of Energy Security Threats based on Semantic Modeling
	Lyudmila E. Rodionova	Method of Designing a Software Analytical Complex based on a Cartesian Closed Category Using Virtual Objects
	Research session «Information Technology» (TU EI Kontaktraum, 6 <sup>th</sup> floor)	
	Alex N. Kopaygorodsky	Technology of Application of Software Tools for Energy Technology Forecasting
	Anatoly P. Beltiukov	Identifying the Strength of Emotions in Relation with the Topic of Text Using Word Space
	Oksana Ya. Bezhaeva	The Method for Linear Regression Models Constructing Based on the Sharing of Measured Data and Expert Assessments
<b>Thursday, 03 October</b>		
10:00 – 11:30	Special session «Alumni» (TU EI Kontaktraum, 6 <sup>th</sup> floor) Co-chairs:	
	Lada E. Gonchar	Implementation of Secure Software Development Lifecycle in a Large Software Development Organization
	Khazankin	
	Kulmukhametov	
11:30 – 12:00	Coffee break (TU EI 6 <sup>th</sup> floor)	
12:00 – 14:00	Research session «Artificial Intelligence Tools» (TU EI Kontaktraum, 6 <sup>th</sup> floor)	
	Irina P. Bolodurina	Comparative Analysis of the Convergence of the Population-Based Algorithm and the Gradient Algorithm for Optimizing the Neural Network Solution of the Optimal Control Problems
	Karina I. Shakhgeldyan	Artificial Intelligence Methods in Assessing the Severity and Differential Diagnosis of Bronchoobstructive Syndrome
	Marat R. Bogdanov, Irina N. Dumchikova	Processing of Biomedical Data with Machine Learning
	Olga I. Khristodulo	Methodical Fundamentals for Choosing the Location of Waste Treatment Enterprises based on the Indicators of the Territorial System Status
	Dmitrij V. Pesterev	Technology of Conversion From Dynamic Cognitive Maps to the Production Rules of the Expert System
	Vladimir R. Kuzmin	Typal Intelligent DSS for Making Strategic Decisions in the Energy Sector and Examples of Application based on Agent-Service Approach
14:00 – 15:00	Lunch (TU EI Mensa Buffet, groundfloor)	
15:00 – 17:00	Research session «Information systems» (TU EI Kontaktraum, 6 <sup>th</sup> floor)	
	Boris E. Fedunov	On-Board Intellectual Tactical Level Systems: Composition, Purpose, Use in the Flights of the Passenger Aircrafts with Landing on Water
	Yuri I. Rogozov, Alexander N. Belikov	The Approach to Basic Abstraction Construction for the Architectural Schemes Design
	Anatoly P. Beltiukov	Constructive Ontologies
	Rashit V. Nasyrov	The Concept of Decision Support in Evaluating the Functional State of Complex System of the Biological Type
	Rashit V. Nasyrov	Construction of Mathematical Relationships and Software

		Implementation of a Simulation Model of the Behavior of Components of the Musculoskeletal System of a Person
	Alia S. Davlieva	Ensuring Functional Safety Hardware and Software Components as a Prerequisite for the Formation of a Digital Ecological Environment in Implementing Innovative Projects
17:00 – 17:30	Closing Ceremony, than walk to Siebensternbrau Chairwoman Prof. Yusupova N. I.	
18:30	Conference Dinner (Siebenstern Bräu, SIEBENSTERNGASSE 19)	
<b>Friday, 04 October</b>		
10:00 – 12:00	Round table discussion on Disrtibuted Ledger Technologies (ICT Besprechungsraum, TU EI 2nd floor)	