

PROGRAM

6th International Workshop on Information, Computation, and Control Systems for Distributed Environments

(ICCS-DE 2024, <https://iccs-de.icc.ru/>)

July 1-5, 2024, Irkutsk, Russia

The languages of the workshop are English and Russian.

The schedule of events indicated Irkutsk time (GMT+8).

July 1, 2024	EVENT
8:30 – 17:00	REGISTRATION OF WORKSHOP PARTICIPANTS, INSTITUTE LOBBY
14:00 – 14:10	<p>OPENING CEREMONY (offline-online), INSTITUTE CONFERENCE HALL</p> <p>Chairs: <i>Andrei Tchernykh</i>¹ and <i>Igor Bychkov</i>²</p> <p>¹ CICESE Research Center, Ensenada, México chernykh@cicese.mx</p> <p>² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia idstu@icc.ru</p> <p>Technical secretary: <i>Svyatoslav Melkozerov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, melkozerov@isc.irk.ru</p> <p><i>Andrei Tchernykh and Igor Bychkov. Greetings to the Workshop Participants</i></p>
14:10 – 15:30	<p>PLENARY SESSION (offline-online), INSTITUTE CONFERENCE HALL</p> <p>Chairs: <i>Andrei Tchernykh</i>¹ <i>Igor Bychkov</i>²</p> <p>¹ CICESE Research Center, Ensenada, México chernykh@cicese.mx</p> <p>² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia idstu@icc.ru</p> <p>Technical secretary: <i>Svyatoslav Melkozerov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, melkozerov@isc.irk.ru</p> <p>14:00 – 14:40 <i>Zeljko Stojanov</i>. Knowledge Management within Onboarding Practice in Small Software Companies</p> <p>14:40 – 15:20 <i>Yingjie Wang</i>. The Research of Service Computing in Multi-space Crowd Sensing Networks</p>
15:30 – 15:40	Break, INSTITUTE LOBBY
15:40 – 17:00	<p>SECTION 1 (offline-online), INSTITUTE CONFERENCE HALL</p> <p>Chairs: <i>Zeljko Stojanov</i>¹ and <i>Evgenii Cherkashin</i>²</p> <p>¹ University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin, Serbia zeljko.stojanov@uns.ac.rs</p> <p>² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia eugeneai@irnok.net</p> <p>Technical secretary: <i>Svyatoslav Melkozerov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, melkozerov@isc.irk.ru</p> <p>15:40 – 16:00 <i>Dalibor Dobrilovic and Rade Dragović</i>. Usage of Threat Modelling Tools for Implementation of ICT Security Standards in IoT Environments (online)</p> <p>16:00 – 16:20 <i>Evgenii Cherkashin, Nadezhda Nagul, Yingjie Wang, and Igor Bychkov</i>. Hierarchical Control Development Environment: Requirements and Case Study</p> <p>16:20 – 16:40 <i>Igor Vecstejn, Zeljko Stojanov, Mila Kavalic, Verica Gluvakov, and Maja Gaborov</i>. Literature</p>

	Review – Ontology Frameworks for Knowledge Management in Software Engineering (online)
	16:40 – 17:00 <u>Evgenii Cherkashin</u> , <u>Natalia Sverdlova</u> , <u>Elena Mariasova</u> . Syntactic Analyzer of the Russian Language Using Morphology Data: a Functional Approach
July 2, 2024	EVENT
	PLENARY SESSION (OFFLINE-ONLINE), Room 407 Chairs: Igor Bychkov and Alexander Feoktistov Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia dstu@icc.ru , agf65@yandex.ru
14:00 – 14:40	Technical secretary: <u>Viktor Kondratiev</u> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, vikseko@gmail.com
	14:00 – 14:40 <u>Alexander Feoktistov</u> , <u>Mikhail Voskoboinikov</u> . Workflow Management Systems: Current State and Directions of Development
14:40 – 14:50	Break, FOURTH FLOOR
	SECTION 2 (offline-online), Room 407 Chairs: Aleksandr Yurin and Evgenii Cherkashin Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia iskander@icc.ru , eugeneai@irnok.net
	Technical secretary: <u>Viktor Kondratiev</u> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, vikseko@gmail.com
	14:50 – 15:10 <u>Andrei Banshchikov</u> . Symbolic Computation in the Analysis of the Dynamics of an Orbital Gyrostat
14:50 – 17:10	15:10 – 15:30 <u>Nikita Dopiro</u> . Development of a Platform-dependent Model Generator for an Intelligent Assistant Design System
	15:30 – 15:50 <u>Roman Kostromin</u> . Approach to Deploying Computing Cluster Software Using a Cloud Model
	15:50 – 16:10 <u>Olga Nikolaychuk</u> and <u>Alexander Pavlov</u> . Cloud service for knowledge-based systems development using the "Yandex.Cloud" platform
	16:10 – 16:30 <u>Alena Khrypchenko</u> . Development of a Management System for the Collection, Storage and Control of Big Data in Tasks Geoacoustics (online)
	16:30 – 16:50 <u>Alexey Shigarov</u> . Comparison of Table Types Taxonomies
	16:50 – 17:10 <u>Nikita Dorodnykh</u> and <u>Aleksandr Yurin</u> . Software for the Visual Modeling of Knowledge

July 3, 2024	EVENT
14:00 – 16:20	<p style="text-align: center;">SECTION 3 (offline-online), Room 407 Chairs: Evgeny Barakhtenko ¹ and Dmitriy Karamov ² ¹ Melentiev Energy Systems Institute SB RAS, Irkutsk, Russia barakhtenko@isem.irk.ru ² Irkutsk National Research Technical University, Irkutsk, Russia dmitriy.karamov@mail.ru</p> <p>Technical secretary: Mikhail Chekan Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, chekoopa@mail.ru</p>
	14:00 – 14:20 <i>Evgeny Barakhtenko, Dmitry Sokolov, and Gleb Mayorov.</i> Design of an Integrated Energy System Based on a Digital Twin and the Use of Agent Technologies
	14:20 – 14:40 <i>Dmitry Sokolov, Evgeny Barakhtenko, and Gleb Mayorov.</i> Application of Metaprogramming to Automate Calculations in the Design of Integrated Energy Systems
	14:40 – 15:00 <i>Alexey Mikheev, Eugeny Osipchuk, Nikolai Abasov, and Vyacheslav Nikitin.</i> Optimal Planning of Long-term Operations of Hydro Power Cascades to Maximize the Income of the Generating Company
	15:00 – 15:20 <i>Aleksey Edelev, Dmitriy Karamov, D.V. Binh, N.T.T. Huong.</i> Optimization-based Synthesis of Microgrids for Vietnamese Agricultural Farms
	15:20 – 15:40 <i>Natalia Beresneva, Aleksey Edelev.</i> Methodology for Selecting Compensating Measures in Studies of the Survivability of the Country's Fuel and Energy Complex
	15:40 – 16:00 <i>Aleksey Edelev, Gleb Danilov, Olga Basharina.</i> Development of a Gas Supply System Model Based on Open Data for Resilience Research
16:00 – 16:20 <i>Olga Basharina, Aleksey Edelev, and Tatiana Fer.</i> Methodology for Constructing an Analytical Model of Natural Gas Consumption	
16:20 – 16:30	Break, FOURTH FLOOR

July 4, 2024	EVENT
9:00 – 11:45	<p style="text-align: center;">SECTION 4 (offline-online), Room 407 Chairs: Maksim Zharkov, Andrey Mikhailov, and Roman Kostromin Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia roman@kostromin.net, zharkm@mail.ru, mikhailov@icc.ru</p> <p>Technical secretary: Anton Pashinin Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, apcrol@gmail.com</p>
	9:00 – 9:15 <i>Viktor Andriushchenko.</i> Segmentation of Document Images Using Deep Neural Networks (online)
	9:15 – 9:30 <i>Daniil Kopylov and Andrey Mikhailov.</i> Classification of Image Segments Based on Graph Representation of Selected Words Using Neural Networks
	9:30 – 9:45 <i>Oksana Kopylova.</i> Methods for Improving the Accuracy of Passive Location of Impulse Sources of Geoacoustic Oscillations (online)

	9:45 – 10:00 <u>Andrei Kuznetsov and Andrey Mikhailov</u> . Protection NLP Models Against Attacks Using Homoglyphs
	10:00 – 10:15 <u>Aleksey Linyavsky</u> . Comparison of Game Artificial Intelligence
	10:15 – 10:30 <u>Alexey Nesterov</u> . Topical Issues of Assessing Aspects of Information Security in the Model of Interoperability of Organizational and Technical Systems (online)
	10:30 – 10:45 <u>Artem Razmanov</u> . Extracting Information from Document Images Using a Flexible Template
	10:45 – 11:00 <u>Kirill Tobola and Nikita Dorodnykh</u> . Semantic Column Annotation for Russian Tables Using Multilingual BERT Language Model
	11:00 – 11:15 <u>Mikhail Chekan</u> . Cyberphysical Systems Programming Environment in the State Machine Paradigm
	11:15 – 11:30 <u>Evgeny Yumashev and Dmitriy Karamov</u> . Methods and Tools for Implementing Models and Algorithms for Analyzing Actinometric Parameters
	11:30 – 11:45 <u>Dmitriy Yakovlev, Mikhail Voskoboinikov, and Roman Kostromin</u> . Tool for Monitoring Nodes of the Management System for Service-oriented Scientific Applications (video)
11:45 – 12:00	Break, FOURTH FLOOR
12:00 – 12:40	PLENARY SESSION (offline-online), Room 407 Chair: Alexander Feoktistov Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia agf65@yandex.ru
	Technical secretary: <i>Anton Pashinin</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, apcrol@gmail.com
	12:00 – 12:40 <u>Marat Khairtdinov, Gulnara Shimanskaya</u> . Inverse problems of geoacoustics in monitoring systems
14:00 – 14:40	PLENARY SESSION (offline-online), Room 407 Chair: Alexander Feoktistov Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia agf65@yandex.ru
	Technical secretary: <i>Yurii Avramenko</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, avramenko@icc.ru
	13:00 – 13:40 <u>Igor Bychkov, Evgeniy Fereferov, and Roman Fedorov</u> . Digital Monitoring of the Environmental Situation of the Baikal Natural Territory
14:40 – 14:50	Break, FOURTH FLOOR
14:50 – 16:50	SECTION 5 (offline-online), Room 407 Chairs: Alexei Hmelnov and Roman Fedorov Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia hmelnov@icc.ru , fedorov@icc.ru
	Technical secretary: <i>Yurii Avramenko</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, avramenko@icc.ru
	14:50 – 15:10 <u>Alexei Hmelnov</u> . Services for Web-Publishing and Extraction of Fragments of Big Raster Data-sets
	15:10 – 15:30 <u>Olga Edeleva, Aleksey Edelev</u> . Design of Energy Sources of Heat Supply System

	15:30 – 15:50 <u>Dmitriy Karamov</u> and <u>Evgeny Yumashev</u> . Mathematical Modeling of Solar Radiation under Dynamics of Processes in the Middle and Lower Layers of the Atmosphere
	15:50 – 16:10 <u>Alexander Stolbov</u> . Towards to Information System about Mathematical Models of the Environment Supporting Open Modeling Standards (online)
	16:10 – 16:30 <u>Roman Fedorov</u> . Method for Composition of Spatial Data Processing Services
	16:30 – 16:50 <u>Alexander Feoktistov</u> , <u>Muxaun Mikhail Voskoboinikov</u> , and <u>Alexei Edelev</u> . Methods and Tools for Development and Use of Service-oriented Application Testbed
16:50 – 17:00	Break, FOURTH FLOOR
17:00 – 17:30	<p style="text-align: center;">CLOSING CEREMONY (offline-online), Room 407</p> <p style="text-align: center;">Chairs: <u>Zeljko Stojanov</u>¹ and <u>Alexander Feoktistov</u>²</p> <p style="text-align: center;">¹ University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin, Serbia zeljko.stojanov@uns.ac.rs</p> <p style="text-align: center;">² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia agf65@yandex.ru</p> <p>Technical secretary: <i>Svyatoslav Melkozerov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia, melkozerov@isc.irk.ru</p> <p><u>Zeljko Stojanov</u> and <u>Alexander Feoktistov</u>. Summing up the Results of the Workshop and Rewarding Participants</p>