

PROGRAM

6th International Workshop on Information, Computation, and Control Systems for Distributed Environments
(ICCS-DE 2025, <https://iccs-de.icc.ru/>)
July 7-11, 2025, Irkutsk, Russia
The languages of the workshop are English and Russian.
The schedule of events indicated Irkutsk time (GMT+8).

July 7, 2025	EVENT
8:30 – 17:00	REGISTRATION OF WORKSHOP PARTICIPANTS, INSTITUTE LOBBY
10:00 – 12:00	LECTURES FOR YOUNG SCIENTISTS INSTITUTE CONFERENCE HALL (OFFLINE-ONLINE) Chairs: <i>Roman Kostromin</i>¹, <i>Александр Феоктисстов</i>² ¹ Cloud.ru, Irkutsk, Russia roman@kostromin.net ² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia agf65@yandex.ru Technical secretaries: <i>Svyatoslav Melkozerov</i>, <i>Evgeny Yumashev</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia 10:00 – 10:40 <i>Vladimir Shelekhov</i>. 50 Years to the Scientific Team of the Matrosov Institute for System Dynamics and Control Theory SB RAS 10:40 – 11:20 <i>Alexey Novopashin</i>. Supercomputer Systems: Brief Overview 11:20 – 12:00 <i>Roman Kostromin</i>. Basic Concepts of Cloud Technologies
14:00 – 14:10	OPENING CEREMONY (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Andrei Tchernykh</i>¹, <i>Igor Bychkov</i>², <i>Zeljko Stojanov</i>³ ¹ CICESE Research Center, Ensenada, México chernykh@cicese.mx ² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia idstu@icc.ru ³ University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin, Serbia zeljko.stojanov@uns.ac.rs Technical secretaries: <i>Taras Madjara</i>, <i>Mikhail Voskoboinikov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia <i>Igor Bychkov</i>, <i>Andrey Tchernykh</i>, <i>Zeljko Stojanov</i>. Greetings to the Participants of the Seminar
14:10 – 15:30	PLENARY SESSION (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Igor Bychkov</i>¹, <i>Valeria Gribova</i>² ¹ Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia idstu@icc.ru ² Institute of Automation and Control Processes, FEB RAS, Vladivostok, Russia gribova@iacp.dvo.ru Technical secretaries: <i>Taras Madjara</i>, <i>Mikhail Voskoboinikov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia 14:10 – 14:50 <i>Andrey Tchernykh</i>. Trust is not Enough: Privacy Protection in Cloud Systems with Zero-Trust Paradigm 14:50 – 15:30 <i>Zeljko Stojanov</i>. Graph Clustering Methods in Distributed Socio-Technical Systems

15:30 – 16:30	SECTION INTELLIGENT SYSTEMS, INFORMATION, COMPUTATION, AND TELECOMMUNICATION SYSTEMS, MATHEMATICAL MODELING COMPLEX SYSTEMS (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Andrei Tchernykh</i>¹, <i>Zeljko Stojanov</i>² ¹ CICESE Research Center, Ensenada, México chernykh@cicese.mx ² University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin, Serbia zeljko.stojanov@uns.ac.rs Technical secretaries: <i>Taras Madjara, Mikhail Voskoboinikov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	15:30 – 15:50 <i>Igor Vecstejn, Zeljko Stojanov</i> . Personal Experience in the Onboarding Process: A Reflective Analysis through Autoethnography (online)
	15:50 – 16:10 <i>Maxim Kenzin</i> . An Evolutionary Approach to Connectivity-based Vehicle Routing in Ground-and-air Robotic Groups (online)
	16:10 – 16:30 <i>Anton Tolstikhin</i> . Multiple Mobile Robots Formation Control Using Behavioral-based Approach

July 8, 2025	EVENT
8:30 – 9:50	PLENARY SESSION (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Aleksei Sorokin</i>¹, <i>Alexander Feoktistov</i>² ¹ Computing Center FEB RAS, Khabarovsk, Russia alsor@febras.net ² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia agf65@yandex.ru Technical secretaries: <i>Taras Madjara, Mikhail Chekan</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia 8:30 – 9:10 <i>Valeriya Gribova</i>. Decision-Making Support in Conditions of Information Deficiency 9:10 – 9:50 <i>Aleksei Sorokin</i>. Analysis of the Current State and Possible Approaches to the Development of Scientific Computing Infrastructure in the Russian Far East
	Break, INSTITUTE LOBBY
	ORIENTED SECTION ON INFORMATION AND COMPUTATION TECHNOLOGIES FOR STUDYING MODERN ENERGY SYSTEMS (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Gleb Mayorov</i>¹, <i>Dmitriy Karamov</i>² ¹ Melentiev Energy Systems Institute SB RAS, Irkutsk, Russia mayorovgs@isem.irk.ru ² Irkutsk National Research Technical University, Irkutsk, Russia dmitriy.karamov@mail.ru Technical secretaries: <i>Taras Madjara, Mikhail Chekan</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia 10:00 – 10:20 <i>Dmitry Sokolov, Evgeny Barakhtenko, Gleb Mayorov</i>. Computational Automation in the Design of Integrated Energy Systems (online) 10:20 – 10:40 <i>Gleb Mayorov, Evgeny Barakhtenko, Dmitry Sokolov</i>. Development of a Multi-agent System for Designing Integrated Energy Systems 10:40 – 11:00 <i>Olga Edeleva</i>. Methodological Approach to Integrated Assessment of Energy Technologies Based on Life Cycles 11:00 – 11:20 <i>Olga Basharina</i>. Correlation Analysis of Natural Gas Consumption Time Series 11:20 – 11:40 <i>Yana Severina, Vladislav Shakirov</i>. Comparison of heuristic algorithms of multi-criteria optimization for sizing of hybrid renewable energy system

13:00 – 17:20	SECTION INTELLIGENT SYSTEMS, INFORMATION, COMPUTATION, AND TELECOMMUNICATION SYSTEMS, MATHEMATICAL MODELING COMPLEX SYSTEMS (offline-online), INSTITUTE CONFERENCE HALL Chairs: Aleksandr Yurin and Alexander Stolbov Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia iskander@icc.ru, stolboff@icc.ru Technical secretaries: <i>Svyatoslav Melkozerov, Maksym Bodnyuk</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	13:00 – 13:20 <u>Igor Skopin</u> . Designing of Software Interfaces (online)
	13:20 – 13:40 <u>Mikhail Voskoboinikov</u> , <u>Alexander Feoktistov</u> . Scientific Workflow Manager: Resource Allocation and Data Transfer Tools Compared to HTCondor
	13:40 – 14:00 <u>Victor Simonov</u> , <u>Marat Khairtdinov</u> . Development of a Python Programming Language Preprocessor for Distributed Data Processing (online)
	14:00 – 14:20 <u>Pavel Kosov</u> , <u>Alexander Legalov</u> . Adding Procedural-parametric Polymorphism to the C Language (online)
	Break, INSTITUTE LOBBY
	14:30 – 14:50 <u>Aleksandr Yurin</u> , <u>Nikita Dorodnykh</u> . A Problem-specific Framework for Creating Decision Support Systems Based on Decision Tables
	14:50 – 15:10 <u>Nikolay Vershkov</u> , <u>Natalia Kuchukova</u> , <u>Vladislav Lutsenko</u> . Creation of Artificial Neural Networks for Work in Distributed Computing Environments (online)
	15:10 – 15:30 <u>Kirill Blinov</u> , <u>Ilya Kurochkin</u> . Hyperparameter Tuning for a Synchronous Distributed Deep Learning Method in Image Classification Tasks (online)
	15:30 – 15:50 <u>Viktor Mochalov</u> , <u>Olga Grigorieva</u> . Methodology for Generating Raw Data for Machine Learning Algorithms when Identifying Landscape Elements (online)
	15:50 – 16:10 <u>Igor Kimyaev</u> , <u>Boris Sokolov</u> , <u>Valerii Zakharov</u> . Methodology of The Manufacturing Companies Viability Evolutionary Management (online)
	Break, INSTITUTE LOBBY
	16:20 – 16:40 <u>Marat Khairtdinov</u> . Kolmogorov-Arnold Networks in Recognition of random Processes (online)
	16:40 – 17:00 <u>Oksana Kopylova</u> . Detection and Recognition of Geo-signals in Noise Using Wavelet Functions (online)
	17:00 – 17:20 <u>Inna Trofimova</u> , <u>Aleksandra Vihareva</u> . Optimization of the One Supply Chain Functioning Based on a Heuristic Approach (online)

July 9, 2025	EVENT
8:30 – 9:10	PLENARY SESSION (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Aleksei Sorokin</i>¹, <i>Alexander Feoktistov</i>² ¹ Computing Center FEB RAS, Khabarovsk, Russia alsor@febras.net ² Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia agf65@yandex.ru Technical secretaries: <i>Taras Madjara, Mikhail Voskoboinikov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	8:30 – 9:10 <i>Igor Bychkov, Evgeniy Fereferov, Roman Fedorov</i> . Digital Platform for Interdisciplinary Scientific Research
9:10 – 11:30	ORIENTED SECTION ON DIGITAL TECHNOLOGIES FOR ENVIRONMENTAL MONITORING OF THE BAIKAL NATURAL TERRITORY (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Alexei Hmelnov and Roman Fedorov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia hmelnov@icc.ru, fedorov@icc.ru Technical secretaries: <i>Taras Madjara, Mikhail Voskoboinikov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	9:10 – 9:30 <i>Alexander Feoktistov, Mikhail Voskoboinikov, Igor Bychkov, Aleksey Edelev</i> . Development of Service-oriented Environment for Modeling Natural and Technical Systems
	9:30 – 9:50 <i>Aleksey Edelev</i> . Hybrid Approach to Structural and Parametric Optimization of Engineering Systems
	9:50 – 10:10 <i>Yuliya Pestova, Olga Nikolaychuk, Yana Vetrivskaya</i> . Investigation of the Impact of Thunderstorms on Forest Fires Based on Machine Learning Methods
	10:10 – 10:30 <i>Alexander Stolbov</i> . Towards Web Services Development for Complex Environmental Research Based on Open Modeling Standards
	10:30 – 10:50 <i>Roman Fedorov</i> . Methodology of Service Compositions for Botanical Research
	10:50 – 11:10 <i>Andrey Gachenko, Alexei Hmelnov</i> . Methods and algorithms for Creating Coastal Relief Models
	11:10 – 11:30 <i>Ivan Diomidov</i> . Integrated Support System for Forest Inventory
13:15 – 15:15	SECTION FOR YOUNG SCIENTISTS (offline-online), INSTITUTE CONFERENCE HALL Chairs: <i>Maksim Zharkov, Andrey Mikhailov, Nikita Dorodnykh</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia zharkm@mail.ru, mikhailov@icc.ru, nikidorny@icc.ru Technical secretaries: <i>Svyatoslav Melkozerov, Evgeny Yumashev</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	13:15 – 13:30 <i>Anastasia Osipova, Alexander Yakimenko</i> . Mathematical Model of Localization of an Acoustic Source in a Heterogeneous Medium (online)
	13:30 – 13:45 <i>Igor Dyminsky, Alexander Yakimenko, Maksim Efirkin</i> . Algorithm for Comparing Electromagnetic Indicators and Seismic Characteristics of Earthquakes (online)
	13:45 – 14:00 <i>Olga Gavenko, Natalia Shashok</i> . Vector Representations Generation: A Review of Methods for Preprocessing Multimodal Data Containing Climate Information (online)

	14:00 – 14:15 <u>Egor Shiriaev</u> , <i>Mikhail Babenko</i> . Modification of the Method of Division of Numbers in the System of Residual Classes (online)
	14:15 – 14:30 <u>Dmitry Lukyanov</u> , <i>Maria Lapina</i> , <i>Vitalii Lapin</i> , <i>Nikolay Kucherov</i> . Building Machine Learning Algorithms for Detecting Fraudulent Websites (online)
	14:30 – 14:45 <i>Maria Lapina</i> , <i>Mohammad Sajid</i> , <u>Yulia Dyadkova</u> , <i>Vitalii Lapin</i> . Research on Machine Learning Methods for Detecting Phishing Domains (online)
	14:45 – 15:00 <i>Maria Lapina</i> , <u>Elizabeth Trapeznikova</u> , <i>Vitaly Lapin</i> , <i>Alice Kushchenko</i> . Study of Network Attack Detection Methods Using Machine Learning Models (online)
	15:00 – 15:15 <i>Maria Lapina</i> , <i>Roman Gubin</i> , <i>Julia Andrusenko</i> , <i>Mohammed Saleh Ali Muthann</i> . Machine Learning Methods for Detecting Tca Text Classification Attacks (online)
	SECTION FOR SCHOOLCHILDREN (offline-online), INSTITUTE CONFERENCE HALL Chairs: Maksim Zharkov, Andrey Mikhailov, Nikita Dorodnykh Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia zharkm@mail.ru, mikhailov@icc.ru, nikidorny@icc.ru Technical secretaries: <i>Svyatoslav Melkozerov</i>, <i>Evgeny Yumashev</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	15:15 – 15:30 <u>Vladimir Lapin</u> , <i>Oksana Evstafiadi</i> , <i>Alexey Smirnov</i> , <i>Alina Bagautdinova</i> . Educational chatbot in Telegram with AI test generation (online)

July 10, 2025	EVENT
9:00 – 12:00	SECTION FOR YOUNG SCIENTISTS (offline-online), INSTITUTE CONFERENCE HALL Chairs: Maksim Zharkov, Andrey Mikhailov, Nikita Dorodnykh Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia zharkm@mail.ru, mikhailov@icc.ru, nikidorny@icc.ru Technical secretaries: <i>Svyatoslav Melkozerov, Maksym Bodnyuk</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	9:00 – 9:15 <u>Vladislav Badenko</u> , <i>Alexander Kozlov</i> . Application of Information and Computing Systems in a Hybrid Power Grid
	9:15 – 9:30 <u>Maksim Bodnyuk</u> . Development of the Monitoring System of the Microgrid Simulation Stand
	9:30 – 9:45 <u>Mikhail Chekan</u> . Methodology of Using the Instrumental Complex for Interacting Microgrids Modeling
	9:45 – 10:00 <u>Evgeny Yumashev</u> . Method for Developing Applications for The Collecting, Processing and Analysis of Meteorological Data
	10:00 – 10:15 <u>Evgeny Nikolaev</u> . DevOps Automation in a Distributed Computing Environment for Scientific Applications
	10:15 – 10:30 <u>Dmitriy Yakovlev</u> , <i>Alexander Feoktistov</i> . Monitoring System for Software and Hardware Infrastructure of Computing Environment
	Break, INSTITUTE LOBBY
	10:40 – 10:55 <u>Mikhail Klimonov</u> . Using the History of Service Calls to Determine Similarity in Users' Scientific Interests.
	10:55 – 11:10 <u>Ivan Ignatev</u> . Digital Transformation of Scientific Organizational Activities: Theoretical Approaches to the Development of a Specialized Framework
	11:10 – 11:25 <u>Aleksey Linyavsky</u> , <i>Nadezhda Nagul</i> . GOAP-based group planning in the object search problem
	11:25 – 11:40 <u>Elizabeth Vikulova</u> , <i>Anton Tolstikhin</i> . Development of Software Simulation Methods LIDAR Operation
	11:40 – 11:55 <u>Nadezhda Dushkina</u> , <i>Anton Tolstikhin</i> . Methods for Constructing a Perspective Transformation Matrix for image Stitching

13:00 – 15:15	SECTION FOR YOUNG SCIENTISTS (offline-online), INSTITUTE CONFERENCE HALL Сопредседатели: Maksim Zharkov, Nikita Dorodnykh, Anton Tolstikhin Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia zharkm@mail.ru, nikidorny@icc.ru, madstayler93@gmail.com Technical secretaries: <i>Taras Madjara, Mikhail Voskoboinikov</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia
	13:00 – 13:15 <i>Andrey Alekseev, Andrey Mikhailov</i> . Representation learning of Electronic Documents
	13:15 – 13:30 <i>Anton Bulakh</i> . Segmentation of CBCT Images Based on U-Net Architecture
	13:30 – 13:45 <i>Mikhail Zagorodonikov, Andrey Mikhailov</i> . Integration of a Text Recovery Method for PDF Documents with Broken Encoding into the Dedoc System
	13:45 – 14:00 <i>Daniil Kopylov</i> . Graph Neural Networks in the Problem of Document Layout Restoration
	14:00 – 14:15 <i>Andrei Kuznecov, Andrey Mikhailov</i> . Protection Against Imperceptible Attacks on NLP Models Using Homoglyphs
	14:15 – 14:30 <i>Ivan Poddubny, Nikita Dorodnykh</i> . A Concept of Approach to Solving the Tabular Information Question Answering Problem Using Computational Graphs.
	14:30 – 14:45 <i>Kirill Tobola, Nikita Dorodnykh</i> . Adaptation of SimCLR Approach to Column Type Annotation Task of Russian Language Tables
	14:45 – 15:00 <i>Maria Shchurik</i> . The VGG Model in the Problem of Comparing Font Styles
	15:00 – 15:15 <i>Nikita Kosyanov</i> . On an Improvement to the Next-step Procedure (online)
15:15 – 15:30	Break, INSTITUTE LOBBY
15:30 – 17:00	Presentation of the ISDCT SB RAS Developments (offline-online), ROOM 407
17:00 – 17:30	CLOSING CEREMONY (OFFLINE-ONLINE), ROOM 407 Chairs: Igor Bychkov¹, Andrei Tchernykh², Zeljko Stojanov³ ¹ Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia idstu@icc.ru ² CICESE Research Center, Ensenada, México chernykh@cicese.mx ³ University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin, Serbia zeljko.stojanov@uns.ac.rs Technical secretaries: <i>Taras Madjara, Maksym Bodnyuk</i> Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, Irkutsk, Russia <i>Igor Bychkov, Andrei Tchernykh, Zeljko Stojanov</i>. Summing up the Results of the Workshop and Rewarding Participants