

# 9th INTERNATIONAL SCIENTIFIC CONFERENCE "INTELLIGENT INFORMATION TECHNOLOGIES FOR INDUSTRY"

# IITI'25 CONFERENCE PROGRAMME

# November 5 – 7, 2025, Sirius Federal Territory, Russia















#### **ORGANIZERS**

Sirius Federal Territory (Russia)
Sirius University of Science and Technology (Russia)
Rostov State Transport University (Russia)
Scientific Research and Design Institute for Informatization, Automation, and Communication in Railway Transport (Russia)
Russian Association for Artificial Intelligence (Russia)
Association of Railway Equipment Manufacturers (Russia)

#### **Honored Chairs**

- Alexander Dolgiy, JSC "NIIAS", Russia
- Anton Gusev, Sirius University of Science and Technology, Russia
- Vladimir Vereskun, Rostov State Transport University, Russia

#### **Conference Chairs**

- Igor Kotenko, St. Petersburg Federal Research Center of RAS, and ITMO University, Russia
- Mikhail Shiryaev, Sirius University of Science and Technology, Russia
- Sergey Grishaev, JSC "NIIAS", Russia
- Sergey Kovalev, Rostov State Transport University, JSC «NIIAS», Russia
- Sergey Petrenko, Sirius University of Science and Technology, Russia

### **Organizing Chairs**

- Alexander Guda, Rostov State Transport University, Russia
- Andrey Sukhanov, Rostov State Transport University, JSC "NIIAS", Russia
- Ivan Olgeizer, Rostov State Transport University, JSC "NIIAS", Russia
- Konstantin Gnidko, Sirius University of Science and Technology, Russia
- Maria Butakova, JSC "NIIAS", Russia
- Pavel Sundeev, Sirius University of Science and Technology, Russia
- Vladimir Skiba, Sirius University of Science and Technology, Russia

## **Organizing Committee**

- Anna Kolodenkova, Samara National Research University named after Academician S.P. Korolev (Samara University), Russia
- Alla Bylinskaya, Sirius University of Science and Technology, Russia
- Anna Chernova, JSC "NIIAS", Russia
- Anna Levshina, JSC "NIIAS", Russia
- Anna Timoshenko, JSC "NIIAS", Russia
- Elina Usmanova, JSC "NIIAS", Russia
- Elizaveta Perova, Sirius University of Science and Technology, Russia
- Larisa Vasileva, JSC "NIIAS", Russia
- Olga Dobrynina, Sirius University of Science and Technology, Russia
- Vladimir Paltsev, Sirius University of Science and Technology, Russia
- Yuliya Solovyova, JSC "NIIAS", Russia
- Yin Li, Harbin Institute of Technology, China

### **International Program Committee**

- Aleksandr Panov, Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow Institute of Physics and Technology, Artificial Intelligence Research Institute, Russia
- Alexander Degtyarev, Saint-Petersburg State University, Russia
- Alexander Eremeev, Moscow Power Engineering Institute, Russia
- Alexander Smirnov, Saint-Petersburg Federal Research Center of Russian Academy of Sciences, Russia
- Alexander Tselykh, Southern Federal University, Russia
- Alexey Averkin, Dorodnicyn Computing Centre of Russian Academy of Sciences, Russia
- Alexey Bobtsov, ITMO University, Russia
- **Alexey Karpov**, ITMO University, Russia
- Anatoly Korobeynikov, IZMI RAS, Russia
- Andrei Petrovski, Robert Gordon University, United Kingdom
- Andrey Chechulin, ITMO University, Russia
- Andrey Konstantinov, Peter the Great St Petersburg Polytechnic University, Russia
- Bharat S Chaudhari, MIT World Peace University, India
- Bi Hui, Harbin University of Science and Technology, China
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- Chen Xinzhuang, Yan'an University, China
- Costin Badica, University of Craiova, Romania
- **Dmitriy Kruchinin**, Sirius University of Science and Technology, Russia
- Dmitry Yudin, Moscow Institute of Physics and Technology, Artificial Intelligence Research Institute, Russia
- Evgenia Novikova, Saint Petersburg Electrotechnical University "LETI", Russia
- Giuseppe ML Sarne, University of Milano Bicocca, Italy
- Gleb Fedorov, Sirius University of Science and Technology, Russia
- Guangyu Liu, Hangzhou Dianzi University, China
- Igor Dolgiy, Rostov State Transport University, Russia
- Igor Fominykh, Moscow Power Engineering Institute, Russia
- **Igor Saenko**, Saint-Petersburg Federal Research Center of Russian Academy of Sciences, Russia
- Imran Akperov, Southern University, Russia
- Ivan Kholod, Saint Petersburg Electrotechnical University "LETI", Russia
- Konstantin Izrailov, The Bonch-Bruevich Saint-Petersburg state university of telecommunications, Russia
- Leonid Gladkov, Southern Federal University, Russia
- Lev Utkin, Peter the Great St Petersburg Polytechnic University, Russia
- **Li Changxi**, Shandong University, China
- Li Dengfeng, University of Electronic Science and Technology of China, China
- Li Tao, East China Normal University, China

- **Li Xiuxian**, Tongji University, China
- Maria Mikheenkova, Federal Research Center "Computer Science and Control", Russia
- Maxim Abramov, Saint-Petersburg Federal Research Center of Russian Academy of Sciences, Russia
- Maya Sukhanova, Azov-Black Sea State Engineering Institute, Russia
- Mikhail Semenov, Sirius University of Science and Technology, Russia
- Mikhail Zabezhailo, Dorodnicyn Computing Centre of Russian Academy of Sciences, Russia
- Muhammad Ary Murti, Telkom University, Indonesia
- Nadezhda Yarushkina, Ulyanovsk State Technical University, Russia
- Oleg Kuznetsov, Institute of Control Sciences of Russian Academy of Sciences, Russia
- Pang Jinhui, Beijing Institute of Technology, China
- Petr Skobelev, Samara Federal Center of Russian Academy of Science & Samara State Technical University, Russia
- Qiang Lu, Hangzhou Dianzi University, China
- Rajeev Shorey, IIT Delhi, India
- Sergey Kuznetsov, Higher School of Economics, Russia
- Sergey Makhortov, Voronezh State Technical University, Russia
- Tang Xiaomin, Heilongjiang University, China
- Vadim Borisov, Moscow Power Engineering Institute in Smolensk, Russia
- Vadim Stefanuk, Institute for Information Transmission Problems, Russia
- Valeria Gribova, Far Eastern Branch of the Russian Academy of the Sciences, Russia
- Vasily Desnitsky, Saint-Petersburg Federal Research Center of Russian Academy of Sciences, Russia
- Vladimir Gorodetsky, JSC "Eureca", Russia
- Vladimir Kureichik, Southern Federal University, Russia
- Vladimir Skiba, Sirius University of Science and Technology, Russia
- Wang Hao, CTO of Shenzhen Kaihong Digital Industry Development Co., Ltd., China
- Wang Long, Peking University, China
- Wasim Raad, Istanbul Aydin university, Turkey
- **Wu Boying**, Harbin Institute of Technology, China
- Xiaotie Deng, Peking University, China
- Xu Genjiu, Northwestern Polytechnical University, China
- Xu Xuanhua, Central South University, China
- Yuri Rogozov, Southern Federal University, Russia
- Zhang Shenggui, Northwestern Polytechnical University, China
- **Zhu Wei**, Chongging University of Posts and Telecommunications, China

#### **VENUE**

#### Conference sessions will be held at:

Sirius Federal Territory, Olympic Avenue, 1

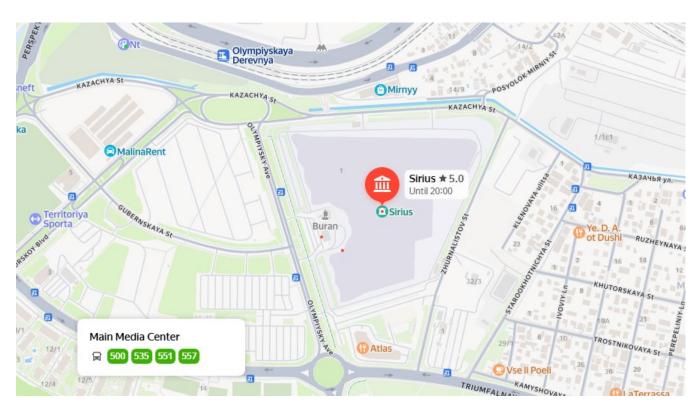
#### Information for self-approaching to Sirius University:

#### **From Airport:**

- Taxi: Yandex go, Maxim, about 10 minutes
- Public Transport: Take bus 557 or 535, get off at the Main Media Center stop, and walk about 500 meters to reach Sirius University of Science and Technology.

#### From Railway Station:

- Taxi: Yandex go, Maxim, about 10 minutes
- Public Transport: Take bus 535, get off at the Main Media Center stop, and walk about 500 meters to reach Sirius University of Science and Technology.



Sirius University of Science and Technology (Olympic Avenue, 1)

November 5, 8:30 – 17:00

November 6, 10:00 - 18:00

November 7, 10:00 - 17:00

#### Official IITI'25 Dinner will be held at:

Congress hall of Mantera Resort & Congress hotel (ground floor), Golubaya st., 1A

## Information for the online participants

#### Hall 1

https://teams.microsoft.com/meet/3731737056050?p=vnq90qCRE4zQtS9axF

#### Hall 2

https://teams.microsoft.com/meet/3952373352575?p=N8QmnZLLbk3GTsebrs

#### Hall 3

https://teams.microsoft.com/meet/3222077203067?p=dgrlvcUODSZspdws7G

#### Hall 4

https://teams.microsoft.com/meet/3222960679792?p=JsEO6gI2CfRDFgClv7

#### Hall 5

https://teams.microsoft.com/meet/337838986177?p=1wqXNC4haZkGqYzD0E

#### Atom

https://teams.microsoft.com/meet/3587397423181?p=006t0Dihv9p1XQ44q5

## **IITI'25 Regulations**

25-50 min – Keynote report 10 min – Session report

## IITI'25 Programme

Tuesday, November 4 – Check-in at the hotel (from 14:00)

# Wednesday, November 5

#### Events:

- Opening Session
- Plenary IITI reports
- Union of Industries of Railway Equipment (UIRE) section
- Official Dinner

8:30 – 10:00	Registration at Sirius University of Scie	ence and Technology
10:00 - 11:30	Welcome words	
11:30 – 12:00	5. <b>Anton Rykov</b> , Executive Director of <b>UIRE</b> , co-organaizer of IITI  Coffee Break	
12.00	IITI  Plenary reports  P Hall «Atom»  Chair: Sergey Kovalev	Session UIRE  - The Union of Railways Equipment Industries  P Hall 1
12:00 – 13:00	1. <b>Sergey Petrenko</b> , D.Sc. (Tech.), Sirius University of Science and Technology Technologies to counter the new quantum cyber threat	Robotization of complex technological processes Prospects for implementation Part 1
	2. <b>Konstantin Gnidko</b> , D.Sc. (Tech.), Associate Professor, Sirius University of Science and Technology Technology for early detection of threats to the information and psychological security of students at educational institutions in the Sirius Federal Territory based on artificial intelligence models and methods	Chair: <b>Sergey Grishaev</b> The program is here:
13:00 – 14:00	3. <b>Liudmila Zhilyakova</b> , D.Sc. (Physics and Mathematics), Institute of Control Sciences, Russian Academy of Sciences The Problem of Time Encoding in Biologically Inspired Intelligent Systems	

14:00 – 15:00	Lunch	
	IITI  P Hall «Atom»  Chair: <b>Sergey Kovalev</b>	UIRE • Hall 1
15:00 – 16:00	1. <b>Lev Utkin</b> , D.Sc. (Tech.), Professor, Peter the Great St. Petersburg Polytechnic University, Russia Risk Analysis, Reliability, and Survival Models: Current State, Latest Advances, and Applications in Industry and Medicine	Robotization of complex technological processes Prospects for implementation Part 2  The Union's website:
16:00 – 17:00	1. Vladimir Zaborovskij, D.Sc. (Tech.), Professor, Peter the Great St. Petersburg Polytechnic University, Russia A turning point in the development of computer science: generative large language models are not all we need 2. Pavel Sundeev, D.Sc. (Tech.), Sirius University of Science and Technology,	
	Russia Cluster model of information security	Closing of the meeting. <b>Summing up the results</b>
19:00	Official Dinner	



## **Thursday, November 6**

#### Events:

- Plenary IITI report
- Multi-Agent Systems
- Mathematical robotics and artificial intelligence, robotic systems
- Generative artificial intelligence
- Artificial Intelligence in Industry, Automation and Intellectualization of industrial, transport and energy systems
- Artificial Intelligence in Information Security, Quantum Computer Science
- Intelligent Information Technologies in Natural, Economic and Social Sciences
- Evolutionary modeling and genetic algorithms
- Scientific and Technical Council JSC «NIIAS»

	II <b>TI</b> <sup>●</sup> Halls 2, 3, 4	Scientific and Technical Council JSC "NIIAS" • Hall 1
10:00 – 11:00	<b>Dr. Wei Li</b> , Professor, Ph.D., The College of Computer Science and Technology, Harbin Engineering University, China Multivariate Time Series Prediction in Edge Computing Scenarios and Its Applications	The council starts at <b>12:30</b> The main research directions of JSC NIIAS:
11:00 – 12:00	Session 17 <sup>1</sup> Multi-Agent Systems  Pall 2  Session 18 Mathematical robotics and artificial intelligence, robotic systems Hall 3  Session 20 Generative artificial intelligence Hall 4	
12:00 – 12:30	Coffee Break	

<sup>&</sup>lt;sup>1</sup> Detailed program of the IITI sessions is presented on page 13

	<b>IITI</b>	Scientific and Technical Council JSC "NIIAS"  • Hall 1
12:30 – 14:00	Session 1 Artificial Intelligence in Industry, Automation and Intellectualization of industrial, transport and energy systems Part 1 Pall 2 Session 4 Artificial Intelligence in Information Security, Quantum Computer Science Part 1 Pall 3 Session 6 Intelligent Information Technologies in Natural, Economic and Social Sciences Part 1 Pall 4	Digital twins of infrastructure facilities  Session Automation and robotization of technological processes in the infrastructure complex  Chair: Agop Khatlamadzhiyan
14:00 – 15:00	Lunch	I
15:00 – 16:30	Session 2 Artificial Intelligence in Industry, Automation and Intellectualization of industrial, transport and energy systems Part 2  Part 2  Hall 2  Session 5 Artificial Intelligence in Information Security, Quantum Computer Science Part 2  Hall 3  Session 7 Intelligent Information Technologies in Natural, Economic and Social Sciences Part 2  Hall 4	The meeting program is here:
16:30– 17:00	Coffee Break	
17:00 – 18:00	Session 3 Artificial Intelligence in Industry, Automation, and Intellectualization of industrial, transport and energy systems Part 3  Part 3  Hall 2  Session 19 Evolutionary modeling and genetic algorithms  Hall 3  Session 8 Intelligent Information  Technologies in Natural, Economic, and Social Sciences Part 3  Hall 4	Closing of the meeting. <b>Summarizing the results</b>

# Friday, November 7

#### Events:

- Financial Mathematics and Engineering
- Logical Foundations in Applied Artificial Intelligence
- Artificial Neural Networks, Machine Learning, and Their Applications
- Intelligent Decision Support Systems
- Intelligent Medical Systems
- Master classes

	IITI	Master classes
	Halls 1, 2, 3, 4	Hall 5
	Session 9 Financial Mathematics and Engineering  Hall 1	The Training Center of JSC "NIIAS"
	Session 10 Logical Foundations in Applied Artificial Intelligence  Hall 2	Chair: Konstantin Kapitonov Seminar
10:00 – 11:30	Session 11 Artificial Neural Networks, Machine Learning, and their Applications Part 1  P Hall 3	Digital Competence Model in digital Transformation projects
	Session 13 Intelligent Decision Support Systems Part 1  Hall 4	
11:30 – 12:00	Coffee Bro	eak
12:00 – 13:30	Session 15 Intelligent Medical Systems Part 1 P Hall 2 Session 12 Artificial Neural Networks, Machine Learning, and Their Applications Part 2 P Hall 3 Session 14 Intelligent Decision Support Systems Part 2 P Hall 4	Seminar Fundamentals of information security and current threats
13:30 – 14:30	Lunch	
14:30 – 16:00	Session 16 Intelligent Medical Systems Part 2  Hall 2	Seminar Modern approaches to project management in the field of high technologies: project selection models and features of evaluating the economic efficiency of robotics
16:00 – 17:00	Summing up the con	

# **Saturday, November 8** – Departure of participants





## **DETAILED PROGRAM OF THE IITI'25 SESSIONS**

Session	Reports
	Chairs: Gennady Veselov, Ivan Olgeizer
	1. Gennady Veselov, Dmitry Elkin, Sergey Sklyarov, Miriam Nicado Garcia and Martha Dunia Delgado Dapena. Synergetic approach to the development of autonomous smart grid systems (offline)
ो. Artificial	2. Vlada Efremenko, Andrei Konstantinov and Lev Utkin. The Weibull Distribution as a Parametric Survival Model Incorporated into the Second-Order Gradient Boosting (offline)
Intelligence in Industry. Automation, and Intellectualization	3. Valeriy Boluchenko, Oleg Kudryavtsev and Vladimir Skiba. Digital Platform for Intelligent Tracking of International Road Transport using Blockchain Technology and Electronic Navigation Seal (offline)
of industrial, transport and energy systems.	<b>4.</b> Hanxi Zhai, Xiaoyu Guo and Jian Wang. Digital Emergency Management Policy Text Analysis <b>(online)</b>
Part 1	<b>5.</b> Alexander Zuenko and Yurii Oleynik. Constraint Satisfaction Methods in Mining Planning (online)
	<b>6.</b> Andrey Chepiga, Andrey Chebotarev, Vadimir Kandalov, Vlada Malysheva and Vasiliy Shapovalov. Neural Network Model for Adaptive Control of Permanent Magnet Synchronous Motor <b>(online)</b>
	7. Ilya Stolyarov and Kamil Masalimov. Application Programming Interface for Automating Beet Sorting (online)
	Chairs: Vladimir Skiba, Andrey Sukhanov
	1. Artem Puzerenko, Andrey Sukhanov, Pavel Borovlev and Agop Khatlamadzhiyan. Learning to Reject: Using an Error Class for More Reliable Object Detection (offline)
2. Artificial Intelligence in Industry, Automation, and Intellectualization	2. Aleksandr Adadurov, Igor Savelev, Pavel Tsomaev and Kseniya Arinushkina. Automated non-contact measurement of geometric parameters of wheels for safe movement of rolling stock (offline)
of industrial, transport and energy systems.	<b>3.</b> Ivan Kulinich, Oleg Kirovskii and Anton Korolev. Artificial intelligence-based methods for evaluation of severity parameter for Hazard Analysis and Risk Assessment of Highly Automated Vehicle (offline)
	<b>4.</b> Maxim Tikhomirov, Oleg Kirovskii, Gennadii Kruglov, Alexander Luchkov and Anton Korolev. The use of LLM in selecting architectural patterns for safety critical automotive systems <b>(offline)</b>

5. Vasiliy Krundyshev, Maxim Kalinin, Oleg Vasiliev and Artem Konoplev. Protection of DLT systems in smart cities based on trust model (online) 6. Sergey Dulin, Dmitriy Nikishin and Anton Ryabtsev. Intellectualizing Geodata Access based on Semantic Geointeroperability (online) 7. Vladimir Zekhtser, Andrey Kostoglotov and Vladimir Tavunov. An algorithm for training a recurrent neural network using an adaptive Kalman filter in trajectory processing tasks (online) Chairs: Sergey Kucherov, Maria Butakova 1. Maxim Gorda and Dmitry Levshun. Formalizing Knowledge of Vulnerabilities and Threats: An Ontological Approach based on the FSTEC VDB (offline) 2. Nikolay Lyabakh, Maksim Bakalov and Yulia Bakalova. The implementation of nature-like decision-making mechanisms based on neuro-fuzzy modeling (offline) 3. Danil Fedorin, Dmitry Polyanichenko, Sergey Grishaev and Aleksandr Dolgiy. Transformation the Mathematical Model of Telemetry Data to Reconstruct the Wagon 3. Artificial History Movements in the Station for the Purpose of Idle Intelligence in Analytics (offline) Industry, **Automation and** 4. Andrey Ilchenko. Combination of HIL and ANN-Based Intellectualization of modelling of RF Signal Disruption in FPV Control industrial, transport protocols (offline) and energy systems. 5. Semyon Nastenko, Dmitry Polyanichenko, Maria Part 3 Butakova and Sergey Grishaev. Automation and Intellectualization of Management Train and Shunting Movements at the Marshalling Yard (online) 6. Asker Khashev, Natalya Kovaleva and Timur Mamaev. Models of urban transport infrastructure development under systemic constraints (online) 7. Yuri Bulavin, Olesya Ignatieva and Vladimir Vereskun. Neural Network-Based Control of Train Dynamics for Railway Road Digital Twins (online) Chairs: Igor Kotenko, Sergey Petrenko 1. Michael Zabezhailo, Alexander Grusho, Dmitry Smirnov 4. Artificial and Elena Timonina. On some possibilities to detect a Intelligence in crash in a large IT infrastructure by indirect indicators Information (offline) Security, Quantum 2. Konstantin Gnidko and Dmitry Lisov. Fine-Tuned **Computer Science.** ResNet50 for Binary Classification of Harmful Visual Part 1 Stimuli: Dataset Curation and Performance Benchmarking (offline)

- **3.** Konstantin Gnidko and Irina Vasilenko. Quantum-like Phenomena in the Spread of Collective Emotions in Social Networks: Model, Experiment, and Dataset (offline)
- **4.** Bertrand Frederick Boui A Boya and Lyudmila Babenko. Hopfield neural network encryption scheme for medical images **(offline)**
- **5.** Albina Ismagilova. Algebraic approaches in cryptographic systems **(offline)**
- **6.** Georgii Abramenko and Igor Kotenko. Ontology-Guided Heterogeneous Graph Retrieval for Large-Language-Model Interpretation of Suricata Events **(online)**
- **7.** Igor Kotenko, Igor Saenko and Vladimir Sadovnikov. Combining Methods for Protecting Image Recognition Systems from Adversarial FGSM Attacks **(online)**
- **8.** Xin Li, Chunyu Huo and Chengli Zhao. Quantum Reservoir Computing for Modeling Nonlinear Complex Dynamics (online)

#### Chairs: Sergey Petrenko, Andrey Chechulin

- **1.** Pavel Sharikov and Andrey Chechulin. Methodology for Analyzing Dockerles for Vulnerabilities Using AI (offline)
- 2. Ariel Baloira Reyes, Alexey Tselykh, Yan Varakin and Timur Gadzhiev. A Reinforcement Learning-Based Agent Training Environment for Autonomous Cybersecurity Protection (offline)
- **3.** Pavel Sundeev. The cluster model of information protection (offline)
- **4.** Pavel Laptev. A complex approach to biometric authentication based on human face, speech and thermal images **(offline)**
- **5.** Efim Shchegolev and Dmitry Levshun. Exploring BERT for Vulnerable Source Code Detection in Internet of Things Systems (offline)
- **6.** Maxim Gorda and Andrey Chechulin. Architecture of a Decision-Support Assistant for Cybersecurity Incident Investigation **(offline)**
- **7.** Kristina Makovejchuk, Alexander Olifirov and Yan Makoveychuk. Methodology for Intelligent Traffic Synthesis and Protection in IoT Systems Using Quantum-Resistant Models (offline)
- **8.** Yan Makoveychuk and Alexey Markov. Intelligent Intrusion Detection System for IoT Based on GAN and MSCNN-BiLSTM **(offline)**

5. Artificial
Intelligence in
Information
Security, Quantum
Computer Science.
Part 2

	Chairs: Sergei Kucherov, Yakovleva Natalia
	1. Sergei Kucherov, Yuri Rogozov and Alexander Sviridov. Hybrid approach using artificial intelligence for software systems development tasks (offline)
	2. Alexandr Alexandrov, Ekaterina Kolomenskaya, Vera Butova and Maria Butakova. Neuro-Fuzzy Modeling for Synthesis Optimization: A Pathway to Advanced Porous Materials (offline)
6. Intelligent Information	<b>3.</b> Liudmila Zhilyakova. Computational Model of Interval Timing in Active Intelligent Agents (offline)
Technologies in Natural, Economic, and Social Sciences.	<b>4.</b> Olga Gavrilenko, Valerii Oliseenko and Maxim Abramov. Feature engineering in the task of predicting the psychological traits online social network users <b>(offline)</b>
Part 1	<b>5.</b> Alexey Bursykov and Sergey Solodov. A knowledge-based view for measuring intellectual capital in innovative strategies <b>(online)</b>
	<b>6.</b> Boris Savelev and Alexander Roschyn. Knowledge capitalization through research projects and knowledge engineering using semantic flows analysis <b>(online)</b>
	<b>7.</b> Sergey Solodov. An innovative model of human capital management for triggering sustainable development <b>(online)</b>
	(Offilite)
	Chairs: Yakovleva Natalia, Sergei Kucherov
7 Intelligent	Chairs: Yakovleva Natalia, Sergei Kucherov  1. Konstantin Gnidko and Vadim Sergeev. Embedding Human Value Systems in Hierarchical Ultrametric Spaces
7. Intelligent Information Technologies in Natural, Economic,	Chairs: Yakovleva Natalia, Sergei Kucherov  1. Konstantin Gnidko and Vadim Sergeev. Embedding Human Value Systems in Hierarchical Ultrametric Spaces for Al-Based Cybersecurity (offline)  2. Olga Bulygina, Andrey Sokolov and Margarita Vorotilova. Fuzzy multicolony bioheuristics for multicriteria optimization of quality management of
Information Technologies in	Chairs: Yakovleva Natalia, Sergei Kucherov  1. Konstantin Gnidko and Vadim Sergeev. Embedding Human Value Systems in Hierarchical Ultrametric Spaces for Al-Based Cybersecurity (offline)  2. Olga Bulygina, Andrey Sokolov and Margarita Vorotilova. Fuzzy multicolony bioheuristics for multicriteria optimization of quality management of chemical-technological processes (online)  3. Alexey Bursykov and Boris Savelyev. Enhancing crosseld research management through conceptual
Information Technologies in Natural, Economic, and Social Sciences.	Chairs: Yakovleva Natalia, Sergei Kucherov  1. Konstantin Gnidko and Vadim Sergeev. Embedding Human Value Systems in Hierarchical Ultrametric Spaces for Al-Based Cybersecurity (offline)  2. Olga Bulygina, Andrey Sokolov and Margarita Vorotilova. Fuzzy multicolony bioheuristics for multicriteria optimization of quality management of chemical-technological processes (online)  3. Alexey Bursykov and Boris Savelyev. Enhancing crosseld research management through conceptual representation and human capital framework (online)  4. Fedor Bushmelev, Valeriia Stoliarova and Ilya Prusskikh. Comparative Study of Clustering Algorithms for Inferring Psychological Profiles from VK-User Avatars Semantics

	<b>6.</b> Sergey Pronichkin. The influence of the intensity and scale of the search for external technologies on the creation of knowledge intensive technological solutions (online)
	Chairs: Konstantin Gnidko, Li Yin
	1. Galina Rybina and Andrey Grigoryev. Situational Control Application to Construct Adaptive Ontological Environment for Intelligent Tutoring Based on Integrated Expert Systems (offline)
	<b>2.</b> Anastasiia Ivashchenko and Tatyana Tulupyeva. Career Proling: Al-based prediction using digital traces from online social networks <b>(offline)</b>
8. Intelligent	<b>3.</b> Alexander Lepskiy. Combining Dependent Sources of Information within the Framework of Evidence Theory <b>(online)</b>
Information Technologies in Natural, Economic,	<b>4.</b> Alexander Chuyko and Zafar Vazirov. The impact of institutions and human capital on corporate innovation <b>(online)</b>
and Social Sciences. Part 3	<b>5.</b> Boris Savelyev. Modeling innovation cohesion in research areas: a higher-order logic approach to conceptual framework construction <b>(online)</b>
	<b>6.</b> Zafar Vazirov. Strategic intellectual resources alignment for internal and external institutional environments <b>(online)</b>
	<b>7.</b> Alexander Chuyko and Sergey Pronichkin. A methodological framework for deterministic forecasting and uncertainty analysis of innovation diffusion <b>(online)</b>
	<b>8.</b> V. Roschyn and Boris Savelev. Modeling the effect of structuring and managing interdisciplinary knowledge based on graph neural networks <b>(online)</b>
	Chair: Mikhail Semenov, Imran Akperov
	1. Igor Shnurnikov. Geometrical properties and exact decay of long-short algorithmic trading strategies (offline)
9. Financial Mathematics and	2. Sergey Malov and Michael Baron. Detection of Temporary Disorders with Application in Electricity Pricing (offline)
Engineering	<b>3.</b> Artyom Vyatkin, Valerii Oliseenko and Ruslan Morozov. Comparison of LLMs on Financial Professional Tests <b>(online)</b>
	4. Natalia Danilova, Grigory Beliavsky and Elena Kamchatnaya. Statistical Machine Learning in Risk Management for Random Investing (online)

	<b>5.</b> Xiaokang Zhang, Wenhui Tan, Mengjun Yu, Qizi Huangpeng and Xiaojun Duan. Interaction Modeling and System Stability Analysis in Financial Markets <b>(online)</b>
	<b>6.</b> Dmitry Polovnikov, Vyacheslav Zadorozhniy and Mikhail Semenov. Application of reinforcement learning method to exchange orders in rebalancing transport asset positions <b>(online)</b>
	Chair: Aleksander Eremeev, Sergey Kovalev
	1. Alexander Eremeev and Gerald Plesnewicz. Boolean and metric extensions of Allen's interval logic (offline)
10. <b>Logical</b>	<b>2.</b> Mikhail Yurushkin, Ilya Slynko and Stanislav Bachurin. Minimal String Search under Regular Constraints (offline)
Foundations in Applied Artificial	<b>3.</b> Maria Mikheyenkova. On the Role of Argumentation in Trustworthy Decision-Making Systems (online)
Intelligence	<b>4.</b> Vera Ilicheva and Alexander Guda. Analysis of a Logical Approach for Modeling Transport Systems Extended by Built-in Arithmetic <b>(online)</b>
	<b>5.</b> Alexander Bochkov. On the "Reasonableness" Criterion for Artificial Intelligence <b>(online)</b>
	Chairs: Lev Utkin, Vladimir Skiba
	1. Lev Utkin, Stanislav Kirpichenko, Andrei Konstantinov, Vladimir Zaborovsky, Igor Orlov and Natalya Verbova. A probabilistic concept-based learning method within the framework of survival analysis (offline)
	2. Andrei Konstantinov, Lev Utkin and Natalya Verbova. Neural Network as a Loss Function for Constructing Decision Tree (offline)
11. Artificial Neural Networks, Machine	<b>3.</b> Andrei Petrovski, Georgii Abramenko and Igor Kotenko. Machine Learning-based Intelligent Measurement in Industrial Digital Twins <b>(offline)</b>
Learning and their Applications. Part 1	<b>4.</b> Andrey Trukhachev, Yuri Sobolev, Kirill Papkov, Victor Pavlov and Vladimir Skiba. A Neural Network Hierarchy for Image Recognition and Interpretation in Cargo and Vehicle X-Ray Inspection Systems <b>(offline)</b>
	5. Mikhail Yurushkin, Artyom Gornostal, Pavel Babich, Ricardo Domingues, Hugo Catao and Reinaldo Scherner. Automated Corn Kernel Counting from Multiple Views (offline)
	<b>6.</b> Shuchang Zhang, Haoxing Yang and Hongxia Wang. PnP-dPPM: Accelerating Plug-and-Play Methods with Degenerate Proximal Point Methods <b>(online)</b>

	<b>7.</b> Qi Wang, Guofeng Fu and Zekun Li. Multi-task deep convolutional neural network based on YOLOv11 for tomato fruit ripening detection <b>(online)</b>
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	2. Karina Shakhgeldyan, Nikita Kuksin, Igor Domzhalov, Regina Pak and Boris Geltser. Intelligent Service for Predicting Adverse Events in Cardiology Based on an Ensemble of Risk Factors (offline)
16. Intelligent Medical Systems. Part 2	<b>3.</b> Mhd. Wasim Raed, Heba H.M. Jadallah, Ilham Huseyinov, Rafet Akdeniz and Elena Fedorchenko. Real Time Mental Stress Prediction using Explainable Artificial Neural Network with Network Pruning <b>(online)</b>
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18. Mathematical robotics and artificial intelligence, robotic systems	Chair: Dmitriy Balandin, Aleksandr Panov
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