

2024 IEEE International Multi-Conference on Engineering, Computer and Information Sciences (SIBIRCON)

Novosibirsk, Mathematical Center in Akademgorodok (Hybrid event)
Novosibirsk State University, Classroom Building #1 — 4st Floor. 4105

Symposium on Fundamentals of Next Generation Communications and Storage

Symposium on Data Analysis Technologies with Applications

30 Sep - 2 Oct, 2024

30 September		
10:00	Vladimir Lyashev	[Invited Speaker] Trends and Applications in 6G Era
10:30	Ivan Kolesnikov, Vladimir Lyashev	Computationally Efficient Tensor-Based MIMO Precoder
10:50	Dmitry Artemasov, Kirill Andreev, Alexey Frolov, Manjesh Kumar Hanawal, Nikola Zlatanov	Recurrent Transformer Neural Network-Based Hybrid Far- and Near-Field THz Channel Estimation
11:10	Alexander Kalachikov	Numerical Assessment of mmWave Hybrid Precoding Using Open Source Channel Model
11:30-12:00	Coffee break	
12:00	Mikhail Oreshin, Peter Trifonov	Polar Subcodes With Improved Weight Spectrum
12:20	Dmitry Artemasov, Vladimir Kuzurman, Kirill Andreev, Alexey Frolov	On Joint Neural Min-Sum Decoding and Quantization Optimization
12:40	Ivan Baksheev, Boris Ryabko	Method of Reducing Memory Size for Some Constrained Code
13:00	Dmitry Telpukhov, Lyubavin Kirill	Methods for Constructing High-Performance Interconnects in System-on-Chip Designs
13:20	Malashin Ivan, Igor Masich, Vadim Tynchenko	Neural Networks-Driven Prediction of Polymer Physical Characteristics
13:40	Aleksandr Kharlunin	A Simulation and Hybrid Optimization Framework for Satellite Relay Positioning with Conflicting TDoA Measurements
14:00-15:00	Lunch	
15:00	Dmitry Palchunov	[Invited Speaker] Logical Methods for Modeling Reasoning, Concepts and Representations Based on the Partial Model Theory
15:30	G. Toktoshov, D. Migov	[Invited Speaker] Analysis of reliability indicators of engineering networks
16:00	Sergey Staroletov	Revealing Patterns for Programs in Graphical Visual Languages Using Clustering
16:20	Roman Morozov, Anton Mikhalev	Neural network model of traffic flow forecasting
16:40	Egor Chetkin, Bogdan Kozyrsky, Sergei Shishkin	Unconditional EEG synthesis based on diffusion models for sound generation
17:00	Denis Parfenov, Anton Parfenov	Creating an Image Recognition Model to Optimize Technological Processes

1 October		
10:00	Pavel Rybin	[Invited Speaker] Decoding as an Optimization Problem
10:30	Daria Ustinova, Anna Fominykh, Pavel Rybin, Alexey Frolov	Low-density lattice codes based on Golomb rulers
10:50	Alexey Khartov	Density evolution for GLDPC codes
11:10	Vladimir Sidorenko	On Syndrome Decoding of Convolutional Code Cosets
11:30-12:00	Coffee break	
12:00	Yeshewas Lulu	Comparative Analysis of Statistical Test based on Data compression methods and standard tests for assessing Randomness of Random Number Generators
12:20	Manh Tuan Nguyen, Adnan Alhaj Hasan, Talgat Gazizov	Recommendation on modeling wire grid reflector structures for sparse antenna generation
12:40	Manh Tuan Nguyen, Adnan Alhaj Hasan, Talgat Gazizov	Sparse wire grid S-band reflector antenna
13:00	Stanislav Krikunov, Viacheslav Zemlyakov, Andrey Ivanov	Physical Modelling and Cancellation of External Passive Intermodulation in FDD MIMO
13:20	Uljana Osipova, Anton Agalakov	An investigation of metrics to compare significantly different approaches to time series forecasting
13:40	Grigory Kabatiansky	New code-based paradigm
14:00-15:00	Lunch	
15:00	Stanislav Eroshenko	[Invited Speaker] Application of machine learning algorithms in the power industry
15:30	Peter Evseev	[Invited Speaker] ϕ 29-like phages: Relics from the Early Bacterial Age
16:00	Konstantin Nikolaev	Development of a neural network model for recognizing Russian-language generated texts
16:20	Anna Korobko	Support for Building Infographic Models on the Multiforms Platform
16:40	Zinaida Apanovich	AEVis: a visualization method to facilitate understanding data and entity alignment results
17:00	Viktoriya Petrakov	The estimate of the influence of the meteorological season on the calibration of readings on PM2.5 obtained from inexpensive sensors
17:20	Larisa Taskina, Leonid Abakumov, Timofey Kazarkin	Development of a virtual simulator with analysis of physiological parameters

2 October		
12:00	Aleksey Kuvshinov, Ilya Timokhin, Fedor Ivanov	On the Concatenation of Superposition and Polar Codes
12:20	Alina Veresova, Andrei Ovchinnikov	Burst Detection and Correction for Gilbert Codes and its QC-LDPC Extensions
12:40	Anastasia Lebedinskaya, Kirill Shabunov	Soft-Decision Randomized Likelihood Decoding
13:00-14:00	Lunch	
14:00	Nina Pilipchuk	Comparative Characteristics of Constant and Mixed Dimension Subspace Codes
14:20	Alexander Blokhin, Vitaly Kalev, Ruslan Pusev, Igor Kviatkovsky, Dmitry Moskvitin	Deep Reinforcement Learning-based Congestion Control for File Transfer over QUIC
14:40	Aliya Janabekova	Sparse vectors support recovery and its applications
15:00	Tatiana Penkova	Approbation of Intelligent Models for Predicting Technological Disruptions in the Aluminum Production
15:20	Sergey Isaev, Denis Doncov	Internet resource analysis for cyber threat source detection
15:40	Valeriy Nicheporchuk, Tatiana Penkova	Architecture of Intelligent Platform for Territorial Safety Management
16:00	Oleg Bodin, Vasiliy Zhigachev	Improving the quality of identifying signs of mental disorders in the media content of social network users
16:20	Boris Ryabko, Nadezhda Savina	Comparative method for quantitative assessment of the quality of translations
16:40	Coffee	