PROGRAM

13th INTERNATIONAL CONFERENCE

«ENGINEERING & TELECOMMUNICATION − En&T-2026»

November 19, 2026

Campus «FIZTECH. TSIFRA»

09:00-10:00 **Registration 1 floor**

10:00-10:15 Opening Ceremony

Coffee break

Welcome speech by ***Organizing Committee***

Plenary Session

Campus «FIZTECH. TSIFRA». The classroom 4.18

Working language of the Plenary Session: Russian

Moderator: **Prof. Alexander Dvorkovich, Corresponding Member RAS, MIPT, Russia**

10:15-10:45

Adaptive digital signal processing in 4G/5G systems
Sergey Bahurin, YADRO, Россия

10:45-11:00

The use of AI technologies for digital signal processing in SDR devices

Alexander O. Boldyrev, Head of Radio Electronics Department, Software-Defined Radio (SDR), MMS, Russia

11:00-11:30

5G Technology in Russia: Present and Future
Pavel V. Berezin, Russia

11:30-12:00

Coffee break

Conference Sections

Session 1. Telecommunication systems and networks

12:00-17:00

Campus «FIZTECH. TSIFRA». The classroom 4.29

Moderator: Prof. Alexander V. Dvorkovich, MIPT, Russia
Prof. Vladimir A. Lyashev, MIPT, Russia

A Practical Self-Tuned LASSO for Hybrid Near- and Far-Field Channel Estimation in XL-MIMO

Ali Raafat, Semyon Dorokhin

Preserving Fine-Detail Contrast and Suppressing Edge Artifacts in Image Tone Mapping

Fedor A. Remizov, Vyacheslav N. Chesnokov

Globally Optimal Farrow Filter Basis Functions Set

Alexandr A. Busse, Dmitrii M. Solovev

Messenger Security Assessment Methodology

Alexander Iv. Kolybelnikov, Alexey R. Arshanskiy

Impact of Event Propagation on Reliable Alert Delivery With R-TWT in Wi-Fi 7 Networks

Victoria N. Khamash, Maria V. Shlapak, Andrey Ig. Lyakhov

Residual Frequency Tracking Loops in a 5G NR Receiver for Low Earth Orbit Satellite Links

Sergey Al. Levichev

Algorithm for Selecting Service Parameters for Uplink Remote Control Traffic in 5G V2X Networks

Nikolay A. Nikolaev, Aleksei Ed. Shashin, Artem N. Krasilov

Performance Evaluation of Resource Reservation Mechanisms for Relaying in 5G V2X Networks

Alexandra Yu. Khaytina, Artem D. Otmakhov, Artem N. Krasilov

Impact of Packet Aggregation Algorithms on Serving VR Flows by Multi-Link Devices in Heterogeneous Wi-Fi 7 Networks

Vladislav D. Paroshin, Arseny K. Dylko, Vyacheslav Ar. Loginov

On Video Streaming with Wi-Fi HaLow Devices

Ilya D. Ivanov, Aleksey An. Kureev, Dmitry V. Bankov

Rate-Distortion Optimization of RAHT Coefficient Quantization for Point Cloud Attribute Compression

Stanislav V. Efremov

Predicting Receive Nulls for a Near-Field Passive Intermodulation Source from Its Excitation Tensor

Vladislav V. Nesterenko, Stanislav Al. Krikunov

Multi-Window Signal Detection Method in Random Access Channel under High Mobility and Rayleigh Fading

Ekaterina N. Dalampira, Vladimir Al. Lyashev

On Detecting Interference Modes for Nonlinear Spectral Regularization

Robert N. Potekhin, Vladimir A. Lyashev

Complexity-Aware Volterra Term Selection for Digital Predistortion

Anton Sushko

Intuitive efficiency in managing the Internet of Things
Evgeny Khokhryakov

Session 2. Radio communication and radar systems

12:00-17:00

Campus «FIZTECH. TSIFRA ». The classroom 4.25

Moderators: **Prof. Sergey P. Skobelev, PJSC «Radiophysics», Russia**
Prof. Vladimir E. Farber, PJSC «Radiophysics», Russia

Electrodynamic Simulation of Reconfigurable Plasma Antennas

Mihail S. Matsayan, Konstantin N. Klimov

Scattering of a Plane Wave by the Plasma Sheath of a Hypersonic Object

Konstantin N. Klimov, Kirill Ig. Konov

The Influence of the Geometric Parameters of a Ring-shaped Slit Formation on the Backscattering of Electromagnetic Waves by a Spheroconical Object

Maksim S. Vinogradov, Sergey V. Elizarov

Synthesis of the Refractive Index in a Focusing Lens with Flat and Spherically Concave Surfaces

Sergei P. Skobelev, Mikhail M. Kushneryov

Polyconic Lens Antennas

Khanh Bui Tuan, Vadim An. Kaloshin, Uan Pham Cong

Fiber-optic Temperature Sensor for Monitoring Transmit/receive Module of an Active Phased Array

Dmitriy Ev. Chertilin, Alexander Al. Sudarenko, Sergey V. Starikov

Method for Measuring Antenna Radiation Patterns by Translating a Probe Along a Non-Canonical Surface in the Near-field Region

Nikolay V. Anyutin

Geometric Interpretation of the Design of a Signal Direction Finder and Its Generalization to State Space

Sergei An. Bolovin, Konstantin N. Klimov

Effect of correlated position and velocity measurements on the accuracy performance of a growing-memory filter

Mariya An. Murzova

Faster K-Best Hypothesis Selection for Multiple Hypothesis Tracking in Dense Clutter

Kirill D. Degtyarev, Sergey V. Afanasyev, Vladimir Al. Dobrozhansky

Machine-Learning-Based Classification of Hypersonic Glide Vehicles with Distinct Aerodynamic Profiles

Vadim D. Vasilev, Evgeny V. Kovtunov, Nikolai Ev. Gaiduchenko

Vibration-Induced Components of Range-Doppler Portraits as a Feature for Aircraft Recognition in Millimeter-Wave Radar

Pavel A. Dudkin

Analytical Assessment of the Integrity of Command and Control Links for Unmanned Aerial Systems

Andrey L. Anikin, Abuk Ad. Saidov

Experimental Study of Passive Human Localization Using Radio Fingerprints of Ultra-Wideband Chaotic Signals

Ekaterina Al. Goncharenko, Elena V. Efremova

Identification of people by heart rate based on cepstral analysis of radar signals

N. A. Hodakov, S. V. Vityazev, A. N. Sysoev, V. V. Vityazev

Modeling and Performance Analysis of a Ku-Band Phased-Array Ground Terminal for LEO Satellite Communications

Anastasiya A. Shenkova, Vladimir Al. Lyashev, Andrey An. Ivanov

Development and research of symbol synchronization blocks as part of a digital receiving device based on an FPGA

Iaroslav D. Prasolov, Ivan A. Grigoryev

Component Requirements for an Onboard Analog Self-Interference Canceller with Adaptive Gradient Tuning

Vitaly R. Nikitenkov

Session 3. Computing systems and intelligent data processing

12:00-17:00

Campus «FIZTECH. TSIFRA ». The classroom 4.18

Moderator: prof. Roman V. Meshcheryakov, ISC RAS, Russia
Mark V. Mamchenko, MIPT, Russia

An Ontological Model for the Formalization of Value Orientations in Intelligent Text Analysis

Dmitriy Seliverstov, Aleksandra S. Vanichkina

Safety-Constrained Closed-Loop Anomaly Detection and Active Intrusion Prevention for Small Industrial Ethernet Networks

Bui Nguyen Trung, Fedor F. Pashchenko, To Phi Thanh

Minimum Acyclic Partition of a Directed Subgraph

Oleg Yu. Zinovchik, Dmitriy A. Gavrilov

A Modular Approach to Automated Video Processing Implementation Using Static and Dynamic Components

Oleg Yu. Zinovchik, Dmitriy A. Gavrilov

Hardware Implementation of Neural Network-Based Generalized Convolution for Streaming Video Processing

Ruslan Az. Zaripov, Ekaterina Ig. Dudenko, Vyacheslav N. Chesnokov

Development of a Method for Automated Construction of Digital Twins of Terrain Based on Geospatial Data

Nguyen Thanh Trung

Methodology for the Experimental Verification of the Motivated Soft Actor-Critic Architecture
Anastasiia D. Pavlova, Nikolay N. Schelkunov, Dmitriy Al. Pavlov, Dmitriy Al. Gavrilov

Geometric Parametrization of Railway Wheel Defects Based on Neural Network Segmentation

Vladimir Yu. Smirnov, Alexey Yu. Artyomov, Sofia M. Gospodinova

Research of Binary Data Prefetch Optimization on ARM Architecture Based on BRBE Extension Profile

Dmitry Al. Antontsev, Dmitry An. Kolobaev, Sergey Al. Lisitsyn

Optimization of a Demosaicing Algorithm Using Machine Learning Techniques

Artur Ig. Munirov, Vyacheslav N. Chesnokov

Use of Non-linear Features in Extended Color Correction Models

Ostap An. Korovnichenko, Vyacheslav N. Chesnokov

Methods of Intelligent Analysis of Industrial LiDAR Point Clouds

Sergey Al. Yarutin, Roman Al. Dyachenko

A Unified Approach to Evaluating Algorithms for Automatic OTDR Trace Analysis

Vasilisa S. Vazyulya, Katerina Al. Beklemysheva, Alexey N. Dorozhkin, Dimitrii D. Starykh

WiDuDo: Wi-Fi-based Dual Cross-Domain Few-Shot Gesture Recognition

Dai Tonghua, Evgeny M. Khorov

Preliminary ML classification in the static analysis based on LLVM IR representations.

Timur Gilmutdinov Nikolay N., Efanov

Reloc: Execution Trace Memory Images Relocation Tool for New Memory Configurations

Vasilii N. Matrenin, Sergei V. Matveev, Sergey Al. Lisitsyn, Igor V. Petushkov

Adaptive Segmentation of Plant Objects in RGB Images with Natural Backgrounds

Sergei V. Samarin

Comparative Analysis of Libraries for Processing ELF Files

Alexander Al. Dolgov, Artem D. Antonchikov, Andrey An. Derzhavin, Anton Al. Shurygin

LIRA: A Vector Intermediate Representation of the Data-Flow Graph

Alexander S. Kozlov, Daniil V. Belov, Anton Al. Shurygin, Andrey An. Derzhavin, Sergey Al. Lisitsyn

Experimental Verification of the Architecture of the Motivated Soft Actor-Critic

Dmitrii Al. Pavlov, Nikolay N. Shchelkunov, Anastasiia D. Pavlova, Andranik S. Akopov

Application of Machine Learning Ensembles to Strategic Investment Planning in the Aviation Industry

Vladimir Yu. Smirnov, Oksana Ig. Kos

A High-Performance Framework for Interactive Compliance Checking of Large-Scale Network Infrastructures

Daniil R. Paramonov, Roman D. Goncharenko, Nikolay N. Efanov

Packed Relative Relocations RELR: Saving File Size and Memory Across Architectures

Alexander V. Romanov

Method for Comparing OTDR Trace Analysis Algorithms Based on the Effect of Measurement Noise on Their Outputs

Vasilisa S. Vazyulya, Katerina Al. Beklemysheva, Alexey N. Dorozhkin, Alexey Al. Glotov, Dimitrii D. Starykh

HNDD: a Decision Diagram Library for Network Verification

Aleksei N. Durnov, Andrey V. Larin, Nikolay N. Efanov

Integrating the Protea Ruby DSL with the Gem5 Simulator: a Description of the Instruction Set and Devices

Igor V. Petushkov, Alexander V. Likhachev, Konstantin P. Gordienko, Egor S. Shamshura, Anton Al. Shurygin, Andrey An. Derzhavin

Prediction-Residual-Aware Event-Triggered Measurement Scheduling for TS–GRU Model Predictive Control of a Boiler–Turbine Surrogate

To Phi Thanh, Pashchenko Fedor Fedorovich, Bui Nguyen Trung