



**XXI International Conference of Young Specialists
on Micro/Nanotechnologies and Electron Devices
EDM 2020**

**PROGRAM
(GMT+7)**

**Novosibirsk, Russia
June 29 – July 4, 2020**

ORGANIZERS

IEEE Russia Siberia Section

PARTNERS

Novosibirsk State Technical University (NSTU)

A.V. Rzhанov Institute of Semiconductor Physics SB RAS

Biysk Technological Institute (branch) of Altay State Technical University named after I.I. Polzunov
OOO "Eksperimentalnaya Masterskaya NaukaSoft"

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Anastasia S. Kopanenko, engineer of the innovation and technology center, NSTU, Novosibirsk, Russia.

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WORKING LANGUAGES

English, Russian

June 29, 2020	
12:00 – 20:00	Plenary Session and Keysight Seminar
June 30, 2020	
12:00 – 15:20	Section 1. Semiconductor Physics and Technology. Photovoltaics Chair: associate prof. Nataliya L. Shwartz
17:00 – 18:30	Section 7. Robotics, Mechatronics and Automation Chair: prof. Oleg V. Nos
July 02, 2020	
12:00 – 15:00	Section 3. Sonic and Ultrasonic Devices: Physics, Electronics, Application Chair: prof. Vladimir N. Khmelev
15:30 – 18:10	Section 4. Optoelectronic Devices and Systems: Physics, Electronics, Application Chair: prof. Eugene V. Sypin
July 03, 2020	
12:00 – 17.30	Section 2. Radio and Microwave Technology. Computer Science and Telecommunications Chair: associate prof. Svetlana V. Vorobiova associate prof. Maksim A. Stepanov
18:00 – 19:50	Section 6. Medical Electronics Chair: prof. Gennady S. Evtushenko
July 04, 2020	
12:00 – 15:30	Section 5. Power Electronics and Power Engineering Chair: prof. Gennady S. Zinoviev
16:00 – 17:00	Organizational Meeting (EDM committee only)
17:00 – 19:00	Final Meeting Conference Chair: prof. Sergey A. Kharitonov

Plenary Session

June 29, 2020

- 12:00 – 12:30 **OPENING**
Sergey Kharitonov, Conference Chair
- 12:30 – 13:10 Superconductor Flux Quantum Bits: Features and Limitations
Boris Ivanov, Ph.D., NSTU, Russia
- 13:10 – 13:50 The resistive switching effect in graphene based materials for flexible and printed electronics
Artem Ivanov, Junior Researcher, Laboratory No. 11 of Nanotechnology and Nanomaterials, A.V. Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
- 13:50 – 14:10 **BREAK**
- 14:10 – 14:50 How to Measure Innovations? Keysight Technologies Approaches
Alexey Soloviev, Business Development Manager, Keysight Technologies, Russia
- 14:50 – 15:30 Interaction of Laser Radiation with Porous Targets Made of Transparent Materials
Vladimir Osipov, Soviet and Russian physicist, corresponding member of RAS, Russia
- 15:30 – 17:00 **BREAK**
- 17:00 – 20:00 **KEYSIGHT SEMINAR**
The Technological Revolution: from Design to Testing of Modern Electronic Devices
Dmitry Titov, Konstantin Roshchin, Sergey Baranchikov

Section 1. Semiconductor Physics and Technology

June 30, 2020

- 12:00 – 12:10 **OPENING**
Chair: assoc.prof. **Nataliya L. Shwartz**, NSTU, Novosibirsk, Russia
- 12:10 – 12:20 A Novel Structure of the Silicon Transient Voltage Suppressor with Negative Differential Resistance
Sergey D. Akimov, NSTU, Novosibirsk, Russia
- 12:20 – 12:30 Influence of the Preliminary Annealing Conditions on Step Motion at the Homoepitaxy on the Si(100) Surface
Michael Yu. Yesin, A.V. Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
- 12:30 – 12:40 Self-catalyzed GaAs Nanowire Growth at Alternate Arsenic Flux
Pavel V. Shipulin, NSU, Novosibirsk, Russia
- 12:40 – 12:50 Effect of Post Growth Annealing on Phase Transition Parameters in LP CVD Grown Vanadium Dioxide Thin Films
Kirill E. Kapoguzov, Rzhanov Institute of Semiconductor Physics, SB RAS, Novosibirsk, Russia
- 12:50 – 13:00 The Development of Deep Diffusion Modes Involved in Production of Semiconductor Structures for the TVS with a Breakdown Voltage of 800 V
Ivan Krasniy, NSTU, Novosibirsk, Russia
- 13:00 – 13:10 Features of the Annealing Kinetics of GaAs at Incongruent Evaporation
Anna A. Spirina, A.V. Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
- 13:10 – 13:20 Optimal Stage Determination of Sapphire Nitridation Process Completion under High-Energy Electron Beam Influence
Denis S. Milakhin, Rzhanov Institute of Semiconductor Physics, Novosibirsk, Russia
- 13:20 – 13:30 Monte Carlo Simulation of GaSb Cluster Formation on Si(111) substrate
Pavel V. Zhikharev, NSTU, Novosibirsk, Russia
- 13:30 – 13:50 **BREAK**
- 13:50 – 14:00 Removal of Oxides from the Surface (001)InP in Ultra-High Vacuum in an Arsenic Flux
Ivan A. Mitrofanov, ISP SB RAS, Novosibirsk, Russia

- 14:00 – 14:10 Fabrication of 2D Crystals by Intercalation of a bulk ZnWO₄ Single Crystals
Aleksandr I. Komonov, Rzhanov Institute of Semiconductor Physics, Russian Academy of Sciences, Siberian Branch, Novosibirsk, Russia
- 14:10 – 14:20 Electrophysical Characteristics of Sub-THz Diode with Schottky Barrier
Victoriya D. Moskalenko, TSU, Tomsk, Russia
- 14:20 – 14:30 Tunable Chiral Metamaterial for Polarization Control in Microwave Region
Valentin A. Seyfi, Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; NSTU, Novosibirsk, Russia
- 14:30 – 14:40 Microwave Induced Damping of the Shubnikov-de Haas Oscillations in Rolled Nanomembrane in Ballistic Transport Mode
Denis B. Sultanov, Rzhanov institute of semiconductor physics, Siberian Branch of Russian Academy of Science, Novosibirsk, Russia
- 14:40 – 14:50 Microcrystallites and Granularity of Detonation Nanodiamonds
Anastasia A. Kolesova, BTI AltSTU, Biysk, Russia
- 14:50 – 15:00 Electromagnetic Response of 3D-printing Carbon-containing Matrix Structure at Sub-THz Frequency Range
Kirill V. Bilinsky, TSU, Tomsk, Russia
- 15:10 – 15:20 Simulation of Plasmon Enhanced Radiation from SiGe Quantum Dots Combined with Silver Nanoparticles
Nikita A. Polovnikov, Novosibirsk State Technical University, Novosibirsk, Russia; Rzhanov Institute of Semiconductor Physics, Novosibirsk, Russia

Section 7. Robotics, Mechatronics, and Automation

June 30, 2020

- 17:00 – 17:10 **OPENING**
Chair: prof. **Oleg V. Nos**, NSTU, Novosibirsk, Russia
- 17:10 – 17:40 The "Adaptive Rules" for Robotic Applications
Ilya S. Dymov, Assistant of Drive and Automation Department,
NSTU, Novosibirsk, Russia
- 17:40 – 17:50 The Simplified Control Technique for PMSM Torque Ripple
Reduction
Egor A. Ignatev, NSTU, Novosibirsk, Russia
- 17:50 – 18:00 Peculiarities of Equipping an Unmanned Medical Aerial Vehicles
During Search and Rescue Operations
Nurlan A. Bayanbay, Satbayev University, Almaty, Kazakhstan
- 18:00 – 18:10 Shaping of Setpoint Signal for Temperature Controller
Vladimir A. Grinkevich, Siberian Federal Scientific Center of
Agrobiotechnologies Russian Academy of Science, Krasnoobsk,
Russia
- 18:10 – 18:20 A Method for Stabilizing the Rotor Speed of a Vortex-type Wind
Power Plant using Two Variable Elements of its Geometry
Vladimir A. Kostyukov, Southern Federal University,
Rostov-on-Don, Russia
- 18:20 – 18:30 Synthesis of Induction Motor Adaptive Field-Oriented Control
System with the Method of Signal-Adaptive Inverse Model
Olga E. Paul, NSTU, Novosibirsk, Russia

Section 3. Sonic and Ultrasonic Devices: Physics, Electronics, Application July 2, 2020

- 12:00 – 12:10 **OPENING**
Chair: prof. **Vladimir N. Khmelev**, BTI AltSTU, Byisk, Russia
- 12:10 – 12:20 Change in Size of Nanodiamond Agglomerates during Ultrasonic Treatment of Suspensions
Khristina N. Solovyeva, BTI AltSTU, Byisk, Russia
- 12:20 – 12:30 Information System of Energy Determination of Ultrasonic Welding of Thermo-Plastic Materials
Alexey N. Slivin, BTI AltSTU, Byisk, Russia
- 12:30 – 12:40 Ultrasonic Tool for the Realization of Combined Action During the Drilling of Extraterrestrial Objects
Roman V. Barsukov, BTI AltSTU, Byisk, Russia
- 12:40 – 12:50 Test Facility of the Acoustic Drying of Legumes and Vegetables
Pavel P. Tertishnikov, BTI AltSTU, Byisk, Russia
- 12:50 – 13:00 Shock-wave Coagulation of the Submicron Particles in Gas-dispersed Media
Pavel P. Tertishnikov, BTI AltSTU, Byisk, Russia
- 13:10 – 13:20 Experimental Studies of Ultrasonic Drying of Textile Materials
Alexander S. Bochenkov, BTI AltSTU, Byisk, Russia
- 13:20 – 13:30 Investigation of the Process of Ultrasonic Coagulation of Highly Dispersed Particles in a Thin Gap
Alexander S. Bochenkov, BTI AltSTU, Byisk, Russia
- 13:30 – 13:50 **BREAK**
- 13:50 – 14:00 The Information System for the Computation of Converse Ultrasonic Capillary Effect in the Biological Tissue
Alisa I. Shepeleva, BTI AltSTU, Byisk, Russia
- 14:00 – 14:10 Investigation of the Modes and Conditions of Ultrasonic Exposure for Prevention of Ice Formation on Radiators Surface
Denis S. Abramenko, BTI AltSTU, Byisk, Russia
- 14:10 – 14:20 Apparatus for Ultrasonic Treatment of Sewage
Vladislav A. Shakura, BTI AltSTU, Byisk, Russia
- 14:20 – 14:30 Experimental Studies of the Effect of Ultrasonic Intensity on Oligomer Mechanical Destruction Energy
Vyacheslav D. Minakov, BTI AltSTU, Byisk, Russia
- 14:30 – 14:40 Modeling of Ultrasonic Drilling of Hard Formation in the Conditions on the Moon Surface
Roman N. Golykh, BTI AltSTU, Byisk, Russia; Center of ultrasonic technologies of AltSTU, Biysk, Russia

- 14:40 – 14:50 Piston-type Gas Radiator
Viktor A. Nesterov, BTI AltSTU, Byisk, Russia
- 14:50 – 15:00 Experimental Studies of the Process of Ultrasonic Coagulation of
Highly Dispersed Particles in a Standing Wave
Viktor A. Nesterov, BTI AltSTU, Byisk, Russia

Section 4. Optical-electronic Devices and Systems: Physics, Electronics,
Application
July 2, 2020

- 15:30 – 15:40 **OPENING**
Chair: prof. **Eugene V. Sypin**, Byisk AltSTU, Byisk, Russia
- 15:40 – 15:50 The Main Principles of the Development of an Intelligent
Multi-Channel Radiation Thermometer
Nadezhda S. Chernysheva, OmSTU, Omsk, Russia
- 15:50 – 16:00 A New Approach to Physical Encoding in VLC Data Transmission
Technology
Egor A. Grigoryev, East Kazakhstan State Technical University,
Ust-Kamenogorsk, Kazakhstan
- 16:00 – 16:10 Operation of a Capacitive Pumped CuBr Laser in a Reduced Energy
Deposition Mode
Ilya S. Musorov, TPU, Tomsk, Russia
- 16:10 – 16:20 Simulation of Electro-optical Device for Fire Detection on Basis of
Spectral Pyrometry Method
Sergey A. Lisakov, BTI AltSTU, Byisk, Russia
- 16:20 – 16:30 Simulation of Gas Contamination by Methane in Blind Drift of Coal
Mine
Anton I. Sidorenko, BTI AltSTU, Byisk, Russia
- 16:30 – 16:40 Simulation of Dustiness in the Blind Drift of Coal Mine
Anton I. Sidorenko, BTI AltSTU, Byisk, Russia
- 16:40 – 16:50 Development of Comprehensive Method for Enhance of
Decision-Making Reliability at Fire Detection against Background of
Dynamic Optical Interference by Electro-Optical Device of Two
Spectral Ratios
Nadezhda Y. Tupikina, BTI AltSTU, Byisk, Russia
- 16:50 – 17:00 Laboratory Model for Low Current Excitation of Metal Vapor Active
Media Lasers
Pavel I. Gembukh, V.E. Zuev Institute of Atmospheric Optics SB
RAS, Tomsk, Russia; TPU, Tomsk, Russia
- 17:00 – 17:20 **BREAK**
- 17:20 – 17:30 Simulation of the Fire in the Working of Coal Mine Using the Fire
Dynamics Simulator Software
Andrey I. Kin, BTI AltSTU, Byisk, Russia
- 17:30 – 17:40 Metal Vapor Active Element with Inductive Dispenser
Konstantin Yu. Semenov, Institute of Atmospheric Optics SB RAS,
Tomsk, Russia; TPU, Tomsk, Russia

- 17:40 – 17:50 Digital Range-Gated Surveillance Device without an Image Intensifier
Alexandr A. Golitsyn, Design and Technology Institute of Applied Microelectronics, Novosibirsk, Russia; NSU University, Novosibirsk, Russia; NSTU, Novosibirsk, Russia
- 17:50 – 18:00 Multi-Area Range Measurement Method Using Active-Pulse Television Measuring Systems
Elizaveta S. Chaldina, TUSUR, Tomsk, Russia
- 18:00 – 18:10 Modeling the Electromechanical Properties of the MEMS Element of a Thermoelectric Infrared Sensor Based on the Dynamic Seebeck Effect
Gleb D. Demin, National Research University of Electronic Technology (MIET), Moscow, Zelenograd, Russia

Section 2. Radio and Microwave Technology. Information Technology and Telecommunications

July 3, 2020

- 12:00 – 12:10 **OPENING**
Chairs: assoc.prof. **Svetlana V. Vorobiova**, SibSUTIS, Novosibirsk, Russia; assoc.prof. **Maksim A. Stepanov**, NSTU, Novosibirsk, Russia
- 12:10 – 12:20 Performance Analysis of UWB Communication Receiver in Multipath Environment Based on RAKE Receiver
Vitaly A. Karbolin, SibSUTIS, Novosibirsk, Russia
- 12:20 – 12:30 Theoretical Limits of PHY and MAC for 5G Machine Type Communications
Alexander V. Loshkarev, SibSUTIS, Novosibirsk, Russia
- 12:30 – 12:40 Towards the Study of High-Frequency Phased Antenna Array Components
Sergey A. Alekseytsev, NSTU, Novosibirsk, Russia
- 12:40 – 12:50 Integrated Cartesian Feedback with Automatic Phase Adjustment and Power Amplifier
Rodion R. Fakhrutdinov, OmSTU, Omsk, Russia
- 12:50 – 13:00 Approach to Implementation Full-duplex Communication Technology in Power Line Communication Systems
Eugeny V. Rogozhnikov, TUSUR, Tomsk, Russia
- 13:00 – 13:10 Experimental Study of the Buried Vias Effect on Reflection Symmetric Modal Filter Performance
Yevgeniy S. Zhechev, TUSUR, Tomsk, Russia
- 13:10 – 13:30 **BREAK**
- 13:30 – 13:40 Multicriteria Optimization of a Three-Conductor Modal Filter Using Mass-Dimensional Criterion
Anton O. Belousov, TUSUR, Tomsk, Russia
- 13:40 – 13:50 Electrophysical Properties of Carbon Filaments for 3D Printing
Tatyana N. Shematilo, TSU, Tomsk, Russia
- 13:50 – 14:00 Additive Technologies in the Protection of Electronic Equipment from Electromagnetic Radiation
Daria D. Teterina, TSU, Tomsk, Russia
- 14:00 – 14:10 An Approach for Increasing the Discretization Interval along Radial Coordinate in Terrain Reflections Model
Margarita V. Oreshkina, NSTU, Novosibirsk, Russia
- 14:10 – 14:20 Features of Modeling Ultra-Wideband Pulse-Based Radio Systems for Communication Networks of Autonomous Unmanned Aerial Vehicles Groups
Vyacheslav O. Kalinin, SibSUTI, Novosibirsk, Russia

- 14:20 – 14:30 Performance Analysis Of Dynamic Bandwidth Allocation Algorithms In GPON
Victor S. Simonov, NSTU, Novosibirsk, Russia
- 14:30 – 15:00 **BREAK**
- 15:00 – 15:10 Revealing New Possibilities of Ultrashort Pulse Decomposition in a Turn of Asymmetrical Meander Delay Line
Alexander V. Nosov, TUSUR, Tomsk, Russia
- 15:10 – 15:20 TEM Cell for Testing Low-profile Integrated Circuits for EMC
Alexander V. Demakov, TUSUR, Tomsk, Russia
- 15:20 – 15:30 Additional Pulses in the Time Response of a Modal Filter with a Passive Conductor in the Reference Plane Cutout
Maria A. Samoylichenko, TUSUR, Tomsk, Russia
- 15:30 – 15:40 Reflection Symmetric Meander Line Protecting Against Ultrashort Pulses
Evgeniya B. Chernikova, TUSUR, Tomsk, Russia
- 15:40 – 15:50 Approach to Estimation of Radiated Emission from Circuits with Modal Reservation
Adnan Alhaj Hasan, TUSUR, Tomsk, Russia
- 15:50 – 16:00 The Detection of Voltage Extreme Points of the Shielded Power Supply Bus under the Ultrashort Pulse Excitation
Rustam R. Gazizov, TUSUR, Tomsk, Russia
- 16:00 – 16:10 A Device for an Ultrashort Pulse Attenuation in Common and Differential Modes in the High Voltage Power Supply Circuits of the Spacecraft
Roman R. Khazhibekov, TUSUR, Tomsk, Russia
- 16:10 – 16:30 **BREAK**
- 16:30 – 16:40 Modal Analysis of a Microstrip Line with Polygons in the Air
Indira Y. Sagiyeva, TUSUR, Tomsk, Russia
- 16:40 – 16:50 Using Composite Insulating Materials to Improve Modal Filter Performance
Evgeniya B. Chernikova, TUSUR, Tomsk, Russia
- 16:50 – 17:00 The Influence of Temperature on Microstrip Transmission Line Characteristics
Indira Y. Sagiyeva, TUSUR, Tomsk, Russia
- 17:00 – 17:10 Spectral Characteristics of Spatiotemporal Signals and Interference on a Linear Antenna Array
Daria N. Zima, NSTU, Novosibirsk, Russia
- 17:10 – 17:20 Compact Directional Coupler of the Ship's Communication System Implemented on Compact Structures
Luu Quang Hung, Vietnam Maritime University, Hai Phong, Vietnam

17:20 – 17:30 Sub-Nyquist Sampling of Single Tone Signal
Sergei F. Atkishkin, Joint Stock Company «Scientific Research
Institute «EKРАН», Samara, Russia

Section 6. Medical Electronics

July 3, 2020

- 18:00 – 18:10 **OPENING**
Chair: prof. **Gennady S. Evtushenko**, TPU, Tomsk, Russia
- 18:10 – 18:20 Algorithm for Assessing the Quality Compensation of the Skin-electrode Contact by Capacitive ECG Sensors
Artem I. Morenetz, TPU, Tomsk, Russia
- 18:20 – 18:30 Portable Device for Express Assessment of Functional State of Hemostasis System
Egor L. Zhukov, Research School of Chemistry and Applied Biomedical Sciences, National Research Tomsk Polytechnic University, Tomsk, Russia; "Mednord-Technics" LLC, Tomsk, Russia
- 18:30 – 18:40 Two-Frequency Speckle Analysis of Plasma Clotting Time
Iuliia D. Liushnevskaya, TPU, Tomsk, Russia
- 18:40 – 18:50 Improving the Information Reliability in Medical Information System Based on Multi-agent Technology
Oleg N. Bodin, PSU, Penza, Russia
- 18:50 – 19:00 Air Flow Sensor Based on Environmental Sensor BME280
Gleb V. Shevchenko, NSTU, Novosibirsk, Russia
- 19:00 – 19:10 The Effect of Humidity on the Readings of Carbon Dioxide Sensors
Nikita A. Glubokov, NSTU, Novosibirsk, Russia
- 19:10 – 19:20 A Bionic Approach to the Construction of a Voice Control System in Emergency Conditions
Andrew N. Spirkin, PSU, Penza, Russia
- 19:20 – 19:30 Portable Cardioanalyzer with Registration of Multiply Leads of Electrocardiac Signals
Ruslan F. Rakhmatullov, PSU, Penza, Russia
- 19:30 – 19:40 Device for Reliable Localization of Skin Surface Active Zones in Inert Gases Environment
Vyacheslav V. Murauskas, NSTU, Novosibirsk, Russia
- 19:40 – 19:50 Analysis of Acoustic Parameters of the Speech Apparatus
Yana A. Berg, NSTU, Novosibirsk, Russia

Section 5. Power Electronics and Power Engineering

July 4, 2020

- 12:00 – 12:10 **OPENING**
Chair: prof. **Gennady S. Zinoviev**, NSTU, Novosibirsk, Russia
- 12:10 – 12:20 Multiport Push-Pull/S3R/S4R DC-DC Converter for Spacecraft Power Systems
Dmitri A. Shtein, NSTU, Novosibirsk, Russia
- 12:20 – 12:30 Electrical Modeling of the Spiral Bus Bar
Maxim E. Komnatnov, TUSUR, Tomsk, Russia
- 12:30 – 12:40 Simulation Model of Spacecraft Power System for Power Balance Calculation
Roman V. Kozlov, Joint-Stock Company «Academician M. F. Reshenev «Information Satellite Systems», Zheleznogorsk, Russia
- 12:40 – 12:50 Investigation of Experimental Imitative Testing of Vacuum Circuit Breaker
Muhammad Saqib, TPU, Tomsk, Russia
- 12:50 – 13:00 Research of a Soft Starter of an Induction Motor Based on Multi-Zone Transistor AC Voltage Regulator
Evgeniy A. Kosykh, NSTU, Novosibirsk, Russia
- 13:00 – 13:10 Analysis of Small-Switches AC Voltage Regulator with Switching Capacitors
Aleksey V. Udovichenko, NSTU, Novosibirsk, Russia
- 13:10 – 13:20 Microgrid Voltage and Frequency Control Using Droop Control Based on Master/Slave Method
Mojtaba Abbasi, TPU, Russia
- 13:20 – 13:30 A Control Technique for Current Source Matrix Converter
Evgeny D. Baranov, NSTU, Novosibirsk, Russia
- 13:30 – 13:50 **BREAK**
- 13:50 – 14:00 Calculation of Energy Storage System Parameters
Sergey V. Kuchak, NSTU, Novosibirsk, Russia
- 14:00 – 14:10 Multiport DC-DC Converter with Additional Inductance for Spacecraft Power Systems
Denis A. Kurochkin, NSTU, Novosibirsk, Russia
- 14:10 – 14:20 Designing DC/DC Converters with Impulse Loads for Secondary Supply Systems of Transmit/Receive Modules for Active Phased Array Antennas of Radars
Alexander Y. Petrochenko, The Bonch-Bruевич Saint - Petersburg State University of Telecommunications, St.-Petersburg, Russia

- 14:20 – 14:30 Research of the Laboratory Prototype for the Battery Charging System Based on Wireless Power Transfer
Irina Yu. Semykina, Sevastopol State University, Sevastopol, Russia
- 14:30 – 14:40 Balancing of the Magnetization Reversal Mode of the Bidirectional Three-port DC Converter
Dmitry Yu. Lukov, Yuri Gagarin State Technical University of Saratov, Saratov, Russia
- 14:40 – 14:50 Predictive Digital Current Programmed Control with Load Current Compensation for DC-DC Converters
Nikita A. Sevostyanov, NSTU, Novosibirsk, Russia
- 14:50 – 15:00 Possibility of Aircraft Electrical Equipment Diagnostics by the Local Load Control Units
Nikolay A. Simankov, Moscow State Technical University of Civil Aviation, Moscow, Russia; LLC «Experiment workshop NaukaSoft», Moscow, Russia
- 15:00 – 15:10 Multi-level Voltage Inverter with Structure Invariant to the Number of Levels of the Output Curve
Ekaterina E. Mirgorodskaya, Yuri Gagarin State Technical University of Saratov, Saratov, Russia
- 15:10 – 15:20 Multifunction AC Voltage Regulator for Connecting of Induction Motor to Alternating Power Supply
Ivan I. Zhuravlev, Moscow Power Engineering Institute, Moscow, Russia
- 15:20 – 15:30 Control Algorithms of Discrete Reactive Power Compensators with PI and Fuzzy Logic Controllers
Roman N. Krasnoperov, Moscow Power Engineering Institute, Moscow, Russia