XXVIII International Conference
WECONF-2025

«2025 WAVE ELECTRONICS AND ITS APPLICATION IN INFORMATION AND TELECOMMUNICATION SYSTEMS»

(IEEE Conference Record #65186)

12-16 May 2025

CONFERENCE PROGRAM

St-Petersburg
2025

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SAINT PETERSBURG STATE UNIVERSITY OF AEROSPACE INSTRUMENTATION (ST. PETERSBURG, RUSSIA)

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INSTITUTE OF RADIO AND INFORMATION SYSTEMS – IRIS (VIENNA, AUSTRIA)

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CONFERENCE SECTIONS*

CHAPTER 1-2. Acoustooptics & Acoustoelectronics
(*Акустооптика и Акустоэлектроника*)

CHAPTER 3. Methods and devices of information processing
(*Методы и устройства обработки информации*)

**CHAPTER 4. Data processing and transmission in information
and telecommunication systems**
(*Обработка и передача информации в инфокоммуникационных системах*)

CHAPTER 6. Electromechanics and control systems
(*Электромеханика и системы управления)*

CHAPTER 7. Microelectronic Embedded Systems
(*Встроенные микроэлектронные системы*)

**CHAPTER 8. Modeling and situational quality management in electronics
and instrumentation**
(*Моделирование и ситуационное управление качеством в электронике
и приборостроении*)

CHAPTER 9. Instrumentation and Intelligent Transportation Systems
(*Контрольно-измерительные приборы и интеллектуальные транспортные
системы*)

CHAPTER 10. Quantum telecommunications
(*Квантовые телекоммуникации*)

*Доклады в программе внутри секций перечислены в алфавитном порядке по фамилии первого автора.
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CONFERENCE REGULATIONS

MAY 12
(10:00 – 14:30)

Auditorium 53-03

10:00 – 11:00
REGISTRATION & CONFERENCE OPENING CEREMONY

11:00 – 11:30
COFFEE BREAK

11:30 – 14:30
PLENARY SESSION

MAY 13
(10:00 – 17:00)

Auditorium 51-06 (Da Vinci Hall)
10:00 – 17:00

CHAPTER 1-2. Acoustooptics & Acoustoelectronics (Session 1, 2)
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Auditorium 53-03
10:00 – 17:00

CHAPTER 3. Methods and devices of information processing
(*Методы и устройства обработки информации*)

Auditorium 53-01
10:00 – 13:00

CHAPTER 6. Electromechanics and control systems
(*Электромеханика и системы управления*)

Auditorium 53-01
14:00 – 17:00

CHAPTER 7. Microelectronic Embedded Systems
(*Встроенные микроэлектронные системы*)

Auditorium 53-03

10:00 – 17:00
**CHAPTER 4. Data processing and transmission in information
and telecommunication systems**
(*Обработка и передача информации в инфокоммуникационных системах*)

Auditorium 53-01

10:00 – 13:30
**CHAPTER 8. Modeling and situational quality management in electronics
and instrumentation (Microelectronic Embedded Systems)**
(*Моделирование и ситуационное управление качеством в электронике
и приборостроении*)

Auditorium 13-12

10:00 – 13:30
CHAPTER 9. Instrumentation and Intelligent Transportation Systems
(*Контрольно-измерительные приборы и интеллектуальные транспортные системы*)

Auditorium 51-06 (Da Vinci Hall)

10:00 – 13:30
CHAPTER 10. Quantum telecommunications
(*Квантовые телекоммуникации*)

MAY 15

EXCURSION TO THE ORESHEK FORTRESS

**MAY 16
(11:00 – 12:00)**

Auditorium 53-03

11:00 – 12:00
CONFERENCE CLOSING CEREMONY

CHAPTER 1-2
ACOUSTOOPTICS & ACOUSTOELECTRONICS

V.N. Belyi, N.A. Khilo, P.I. Ropot
Institute of Physics of the NAS of Belarus, Minsk, Republic of Belarus
V.I. Kazakov, O.V. Shakin
St. Petersburg State University of Aerospace Instrumentation, Saint Petersburg, Russia
S.V. Akimov
"IRE-Polus" Ltd.,Fryazino, Russia
**ACOUSTO-OPTIC SPATIAL SCANNING OF BESSEL-LIKE BEAMS
IN FAR ZONE USING PARATELLURITE CRYSTALS**

N.A. Chirikov, T.N. Ulaeva, N.M. Zhilin
Omsk Scientific Center SB RAS, (Institute of Radiophysics and Physical Electronics), Omsk, Russia
**INFLUENCE OF INPUT POWER ON THE ELECTRICAL PARAMETERS
OF SOLIDLY MOUNTED RESONATORS BASED ON ALN, AL, MO
AND TI THIN FILMS**

S.V. Ermolenko, A.G. Kozlov
Omsk State Technique University, Omsk, Russia
**INFLUENCE OF A THIN-FILM ELECTRODE RESISTANCE
ON STABILITY OF QUARTZ RESONATORS**

G.V. Kulak
Mozyr State Pedagogical University named after I.P Shamyakin, Mozyr, Belarus
P.I. Ropot
Institute of Physics of the National Academy of Sciences of Belarus, Minsk, Belarus
V.I. Kazakov, S.V. Kulakov
Saint-Petersburg State University of Aerospace Instrumentation (SUAI), St. Petersburg, Russia
**COLLINEAR ACOUSTO-OPTIC FILTERING OF POLYCHROMATIC
BESSEL LIGHT BEAMS IN CALCIUM MOLYBDATE CRYSTALS**

M.I. Kupreychik, S.N. Mantsevich, V.I. Balakshy
Lomonosov Moscow State University, Moscow, Russia
**APPLICATIONS OF ACHROMATIC LOW-SELECTIVE ACOUSTO-OPTIC
DIFFRACTION IN ALPHA-IODIC ACID BIAXIAL CRYSTAL
FOR TUNABLE OPTICAL FREQUENCY COMB GENERATION**

S.N. Kurilkina

B.I. Stepanov Institute of Physics of National Academy of Sciences of Belarus, Minsk, Belarus

V.I. Kazakov

St. Petersburg State University of Aerospace Instrumentation, St.-Petersburg, Russia

FORMATION OF ACOUSTIC BOTTLE AND BESSEL TYPE BEAMS

S.N. Mantsevich, V.I. Balakshy

M.V. Lomonosov Moscow State University, Moscow, Russia

PHASE BALANCE CONDITION IN ACOUSTO-OPTIC GENERATOR

N.V. Polikarpova, E.A. Djakonov

Lomonosov Moscow State University, Faculty of Physics, Moscow, Russia

ACOUSTIC WAVE PROPAGATION IN ORIENTED ACOUSTO-OPTIC CRYSTALS AND NEW DEVICE APPLICATIONS

V.E. Pozhar

Instrumentation of Russian Academy of Sciences, Moscow, Russia

SPECTRAL INDICES. DETERMINATION AND INTERPRETATION PROBLEMS

T.N. Ulaeva, N.M. Zhilin, N.A. Chirikov

Omsk Scientific Center SB RAS (Institute of Radiophysics and Physical Electronics), Omsk, Russia

INVESTIGATION OF TEMPERATURE EFFECTS ON THE CHARACTERISTICS OF A LADDER FILTER BASED ON A SINGLE SOLIDLY MOUNTED RESONATOR

N.M. Zhilin, T.N. Ulaeva, N.A. Chirikov, A.N. Kuznetsov

Omsk Scientific Center SB RAS (Institute of Radiophysics and Physical Electronics), Omsk, Russia

INVESTIGATION OF SENSING LAYER IMMOBILIZATION EFFECTS ON THE SOLIDLY MOUNTED RESONATOR'S ELECTRICAL CHARACTERISTICS FOR GAS SENSOR APPLICATIONS

CHAPTER 3.
METHODS AND DEVICES OF INFORMATION PROCESSING

A.V. Afanasieva, D.A. Dubrovina, E.S. Markovskiy
St. Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
EXPERIMENTAL ANALYSIS OF THE EFFECTIVENESS OF OBJECT DETECTION METHODS

R.I. Chembarisova, V.A. Nenashev, M.Y. Grigorov, K.Y. Ryzhov, A.R. Bestugin
St.-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
STUDY OF PULSE-WIDTH AND AMPLITUDE-PHASE MODULATION INFLUENCE ON THE M-SEQUENCES CORRELATION CHARACTERISTICS

V.N. Kovregin, A.S. Murzaev
Saint Petersburg State University of Aerospace Instrumentation (SUAI), Saint-Petersburg, Russia
ANALYTICAL PSEUDO-MEASUREMENTS OF THE VELOCITY OF THE RADAR PHASE CENTRE FROM EARTH SURFACE ECHOES AT QUASI-CONTINUOUS RADIATION

A.Y. Kudriashova, S.S. Galizdra, N.V. Toutova
Moscow Technical University of Communication and Informatics, Moscow, Russia
DESIGNING IMPLEMENTATION OF ADDITIONAL MODULES TO INCREASE THE SECURITY AND STABILITY OF THE BIOMETRIC IDENTIFICATION SYSTEM

Yuri Leokhin, Timur Fatkhulin, Konstantin Boitsov
Moscow Technical University of Communications and Informatics, Moscow, Russia
COMPUTER VISION METHODS IN APPLIED PROBLEMS OF CLASSIFYING OBJECTS IN IMAGES

Ivan Nitkin
ITMO University, Cyber-Physical Systems Institute SUAI, St. Peterburg, Russia
MEMORY-OPTIMIZED STERN-BASED DIGITAL SIGNATURE

S.A. Nenashev, V.A. Nenashev, I.A. Kirshina, K.Y. Ryzhov, M.Y. Grigorov
St. Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
ANALYSIS OF HARDWARE-COMPUTING MODULES AND NEURAL NETWORKS FOR AVIATION SURVEILLANCE SYSTEMS WITH COMPUTER VISION

Vladimir Sayenko

Institute of Aerospace Instruments and Systems, St. Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
EVALUATING THE EFFICIENCY OF SERVER SYSTEM CLUSTERS

Aleksey A. Shihotov, Tatiana M. Tatarnikova

Institute of Information Systems and Information Protection Saint Petersburg State University of Aerospace Instrumentation "SUAI", Saint-Petersburg, Russia
METHODS FOR PREPROCESSING IMAGES OF HANDWRITTEN DOCUMENTS IN COMPUTER VISION TASKS

T.M. Tatarnikova, A.S. Raskopina

Institute of Information Technology and Programming St. Petersburg State University of Aerospace Instrumentation (SUAI), St. Petersburg, Russia
OPTIMIZATION OF NEURAL NETWORKS THROUGH SEMI-STRUCTURED ACTIVATION PRUNING

N.V. Toutova, A.Y. Kudriashova, S.S. Galizdra

Moscow Technical University of Communication and Informatics, Moscow, Russia
IMPLEMENTATION OF ADDITIONAL MODULES TO INCREASE THE SECURITY AND STABILITY OF THE BIOMETRIC IDENTIFICATION SYSTEM

Vladimir Yu. Volkov

Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg State Electrotechnical University (LETI), Saint-Petersburg, Russia
MODELING OF SAR IMAGES FOR REFLECTIONS FROM AN INHOMOGENEOUS SURFACE

CHAPTER 4.
DATA PROCESSING AND TRANSMISSION IN INFORMATION AND TELECOMMUNICATION SYSTEMS

N.V. Afonin, E.A. Skorodumova
Moscow Technical University of Communications and Informatics, Moscow, Russia
TIME SERIES ANALYSIS FOR COINTEGRATION

Olesya Bolkhovskaya, Maxim Katkov, Victor Sergeev, Alexander Maltsev
Lobachevsky University, Nizhny Novgorod, Russia
ZONES OF ANTENNA ARRAY PARAMETERS FOR EFFICIENT SIGNAL ANGLE-OF-ARRIVAL ESTIMATION

Artem Burkov, Roman Rachugin, Andrey Turlikov
Saint Petersburg State University of Aerospace Instrumentation, Saint Petersburg, Russia
THROUGHPUT TWO-STEP RANDOM MULTIPLE ACCESS BASED ON ALOHA WITH EARLY-FEEDBACK

M.A. Burnasheva, E.A. Skorodumova
Moscow Technical University of Communications and Informatics, Moscow, Russia
KOLMOGOROV-ARNOLD NEURAL NETWORKS FOR ANTI-FRAUD PROBLEMS SOLVING

Anton Dyudin, Grigoriy Fokin
The Bonch-Bruevich Saint Petersburg State University of Telecommunications, Saint Petersburg, Russia
SIMPLE WAY FOR BASE STATION MONITORING. PART 1 SOFTWARE EMULATION

Grigoriy Fokin, Vladimir Starikov
The Bonch-Bruevich Saint Petersburg State University of Telecommunications, Saint Petersburg, Russia
Vladimir Sevidov
S.M. Budyonny VAS, Saint Petersburg, Russia
RADIO COVERAGE ESTIMATION AND RAY TRACING WITH DIGITAL TERRAIN MODELS IN THE MATLAB ENVIRONMENT

S.G. Fomicheva
Saint Petersburg University of Aerospace Instrumentations, Saint Petersburg, Russia
G.A. Zhemelev
Higher school of software engineering Peter the Great St. Petersburg Polytechnic University, Saint Petersburg, Russia
SECURE SELECTIVE DISTRIBUTED LEARNING OF AUTOENCODERS IN AUTOML APPLICATIONS

Ilya Grishin, Grigoriy Fokin, Alla Kalinkina
The Bonch-Bruevich Saint Petersburg State University of Telecommunications, Saint Petersburg, Russia
Alexander Sinilnikov
Center for Satellite Communication, Leningrad branch of the FSBI NIIR, Saint Petersburg, Russia
Vladimir Sevidov
Department of Radio Engineering S.M. Budyonny VAS, Saint Petersburg, Russia
ANALYSIS OF THE SPECTRAL EFFICIENCY OF A MIMO-NOMA SYSTEM WITH SPATIAL MULTIPLEXING

B.G. Ibrahimov, *Member, IEEE*
Azerbaijan Technical University, Baku Engineering University, National Defense University, Baku, Azerbaijan
Z.A. Ismaylov, *Member, IEEE*
Azerbaijan Technical University, Baku, Azerbaijan
RESEARCH ON THE EFFICIENCY OF TELECOMMUNICATION NETWORKS USING WIRELESS COMMUNICATION TECHNOLOGY

L.N. Isaeva, D.D. Borisova
Moscow Technical University of Communications and Informatics, Moscow, Russia
KUBERNETES-BASED MONITORING METHODS

M.N. Isaeva
Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
A METHODOLOGY FOR CONSTRUCTING A SET OF INFORMATION SETS FOR CORRECTING DOUBLE ERROR BURSTS

A.N. Khairullin, I.M. Lerner, Ya.F. Ziatdinova
Kazan National Research Technical University n.a. A.N. Tupolev, Kazan, Russia
D.V. Shuspanov
SPbSUT, Saint Petersburg, Russia
V.I. Il'in
Kazan Federal University, Kazan, Russia
ON THE ISSUE OF LOWER BOUND CAPACITY ESTIMATION OF BASEBAND BROADBAND COMMUNICATION SYSTEMS IN THE PRESENCE OF CROSSTALK

S.S. Kogan
LLC "T8", St. Petersburg, Russia
L.N. Isaeva, A.V. Lobzov, A.A. Nemykin
Moscow Technical University of Communications and Informatics, Moscow, Russia
FIBER OPTIC TRANSMISSION SYSTEM PERFORMANCE TESTING

Elizar Kustov
ITMO University, Saint Petersburg, Russia
A LATTICE-BASED THRESHOLD SIGNATURE SCHEME
FOR IOT APPLICATIONS

V. E. Kutepov, I. V. Peshkov
Bunin Yelets State University, Yelets, Russia
MODELING AND ANALYSIS OF DEFECTIVE GROUND STRUCTURES
BASED ON A COMBINATION OF UNIT CELLS OF SIMPLER
STRUCTURES

Denis Kutuzov, Alexey Osovsky, Nataliya Maltseva, Dmitriy Starov,
Vladimir Esaulenko
Astrakhan State Technical University, Astrakhan, Russia
CONGESTION DETECTION IN NETWORK-ON-CHIP SYSTEMS BASED
ON FUZZY LOGIC

S.A. Manenkov, D.V. Krysanov,
Moscow Technical University of Communications and Informatics, Moscow, Russia
THE PROBLEM OF PLANE WAVE DIFFRACTION
BY AN INHOMOGENEOUS COMPACT BODY

Yu.A. Novikova, M.B. Ryzhikov, A.A. Kazaev
Saint Petersburg State University of Aerospace Instrumentation (SUAI),
Saint-Petersburg, Russia
OPTICAL SENSOR FOR DETECTING FE, CU AND CO2 PARTICLES
FOR ANALYZING THE SERVICEABILITY OR ENVIRONMENTAL
FRIENDLINESS OF AN AIRCRAFT ENGINE

O.V. Opalikhina, M.A. Zhelavskiy
Saint-Petersburg University of Aerospace Instrumentation (SUAI), Saint-Petersburg, Russia
MARKOV EVALUATION OF INFORMATION SIGNAL

K.N. Pankov, M.M. Glukhov-jr.
Moscow Technical University of Communications and Informatics, Moscow, Russia
ENSURING THE SECURITY OF NEW INFORMATION TECHNOLOGIES
OF THE FOURTH INDUSTRIAL REVOLUTION IN THE CONTEXT
OF THE QUANTUM THREAT

I.V. Ryabov, T.S. Bukanova, N.V. Degtyarev, E.S. Klyuzhev
Volga State University of Technology, Republic of Mari El, Yoshkar-Ola, Russia
DIRECT DIGITAL SYNTHESIZERS OF FREQUENCY-MODULATED SIGNALS

Dmitry Semenov, Alexander Bugrov, Olesya Bolkhovskaya, Alexander Maltsev
Lobachevsky University, Nizhny Novgorod, Russia
EXPERIMENTAL STUDY OF MILLIMETER-WAVE (E-BAND) RADIO RELAY LINK CHARACTERISTICS

S.V. Skorokhodov, *Russian State Social University, Moscow, Russia*
A.S. Mosolov, *"Amulet" Production & Innovation Company, Moscow, Russia*
S.M. Bobrovskii, *MIREA – Russian Technological University, Moscow, Russia*
ON FORECASTING THE STABILITY OF INFORMATION SYSTEMS FOR MANAGING EXPLOSION AND FIRE HAZARDOUS FACILITIES

Anastasiia Solodkova, Andrey Pudeev, Alexander Maltsev
Lobachevsky University, Nizhny Novgorod, Russia
SIGNAL DETECTION AND INITIAL ESTIMATION OF CARRIER FREQUENCY OFFSET USING THE SWIVELED CORRELATOR FOR SATELLITE COMMUNICATIONS

Vardges Vardanyan, Anatolij Sychuk
SibSUTIS, Novosibirsk, Russia
TRANSMISSION OF 32X125GBIT/S 16-QAM SIGNALS USING OPTICAL OFDM TECHNOLOGY OVER A FIBER-OPTIC PATH. SIMULATION RESULTS

Anton Vasin, Vasiliy Elagin
The Bonch-Bruevich Saint-Petersburg State University of Telecommunications, Saint-Petersburg, Russia
ASSESSMENT OF THE TRAFFIC PROCESSING IN 5G-NTN

A.M. Veresova, A.A. Ovchinnikov
Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
BURST CORRECTING CAPABILITY OF BLOCK-PERMUTATION LDPC CODES

V.N. Yershov, V.N. Tolstykh
Institute of Radio Engineering and Infocommunication Technologies, State University of Aerospace Instrumentation, Saint Petersburg, Russia
STUDY OF ORBITAL DYNAMICS IN A SPHERICAL CAVITY

CHAPTER 6.
ELECTROMECHANICS AND CONTROL SYSTEMS

N.V. Belov, A.G. Vovik, L.I. Voronova, M.V. Khokhlova, V.I. Voronov
Moscow Technical University of Communications and Informatics, Moscow, Russia
DEVELOPMENT OF A METHOD FOR GRIPPING FRAGILE OBJECTS WITH A ROBOT MANIPULATOR

Ulyan Belkin, Andrey Prihodskiy, Sergey Serikov
*Saint-Petersburg State University of Aerospace Instrumentation (SUAI),
Saint Petersburg, Russia*
HYBRID SWARM CONTROL BASED ON COMBINING VISUAL AND COMMUNICATION NAVIGATION IN UNCERTAIN ENVIRONMENTS

MAY 13 (14:00 – 17:00)

CHAPTER 7.
MICROELECTRONIC EMBEDDED SYSTEMS

Darya Denisenko
Southern Federal University, Rostov-on-Don, Russia
Dmitry Kuznetsov
Don State Technical University, Rostov-on-Don, Russia
Yuri Ivanov
Southern Federal University, Rostov-on-Don, Russia
Nikolay Butyrlagin
Don State Technical University, Rostov-on-Don, Russia
THE SECOND-ORDER DISCRETE-ANALOG FILTER ON SWITCHED CAPACITORS WITH THREE-PHASE CONTROL

Dmitriy V. Kleimenkin
Don State Technical University, Rostov-on-Don, Russia
Ilya V. Frolov
Ulyanovsk Branch of the Kotelnikov Institute of Radioengineering and Electronics of RAS, Ulyanovsk, Russia
Vladislav E. Chumakov
Don State Technical University, Rostov-on-Don, Russia
Anna V. Bugakova
Don State Technical University, Rostov-on-Don, Russia
GAAS OP-AMPLIFIER WITH CLASS AB OUTPUT STAGE ON P-N-P BIPOLAR AND NJFETS

D.V. Kuznetsov, N.N. Prokopenko, M.A. Sergeenko, N.A. Dmitrienko
Don State Technical University, Rostov-on-Don, Russia
DESIGN OF HIGH-TEMPERATURE OPERATIONAL AMPLIFIERS USING LARGE LANGUAGE MODELS

D.A. Luzhaitsev, A.O. Turov, Yu.A. Miller
Tomsk State University of Control System and Radioelectronics, Tomsk, Russia
D.S. Shimanovskiy
Research Institute of Electrical Communication Systems, Tomsk State University of Control System and Radioelectronics, Tomsk, Russia
P.E. Troyan
Tomsk State University of Control System and Radioelectronics, Tomsk, Russia
DESIGN COMPARING OF A MONOLITHIC INTEGRATED CIRCUIT OF A BUFFER AMPLIFIER USING GALLIUM NITRIDE TECHNOLOGY

Elena Suvorova, Vadim Polyakov
Saint-Petersburg State University of Aerospace Instrumentation, Saint Petersburg, Russia
ADAPTIVE DATA FLOW MANAGEMENT IN SPACEFIBRE VIRTUAL NETWORKS BASED ON SELF-LEARNING TIMED AUTOMATA

Alexey Vinogradov, Elena Suvorova
Saint-Petersburg State University of Aerospace Instrumentation, Saint Petersburg, Russia
ARCHITECTURE OF BRIDGES BETWEEN INDUSTRIAL DATA TRANSMISSION STANDARDS AND THE SPACEFIBRE

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CHAPTER 8.
MODELING AND SITUATIONAL QUALITY MANAGEMENT
IN ELECTRONICS AND INSTRUMENTATION

Aleksandr Chabanenko, Victor Kurlov, Maria Rassykhaeva, Victoria Puzyreva, Casadio Daniele
Saint-Petersburg State University of Aerospace Instrumentation, St. Petersburg, Russia
**USING NEURAL NETWORK ALGORITHMS AND MACHINE VISION
TO ANALYZE THE DYNAMICS OF PRODUCT QUALITY CHANGES**

N.D. Muraviev
MIREA-Russian Technological University, Moscow, Russia
V.P. Kulagin
Moscow Technical University of Communications and Informatics, Moscow, Russia
D.O. Zhukov
MIREA-Russian Technological University, Moscow, Russia
**SOFTWARE TOOL FOR THE SYNTHESIS OF PETRI NET MODELS
OF PARALLEL COMPUTING SYSTEMS**

I.A. Pestova
Moscow Technical University of Communications and Informatics, Moscow, Russia
METHOD OF INDUCTION CONDUCTOMETER SENSORS CALIBRATION

CHAPTER 9.
INSTRUMENTATION AND INTELLIGENT TRANSPORTATION SYSTEMS

E.A. Dobrovolskiy, A.A. Silina
St. Petersburg State University of Aerospace Instrumentation (SUAI), Saint Petersburg, Russia
DEVELOPMENT OF AN ALGORITHM FOR ASSESSING THE CONDITION OF THE PAVEMENT SURFACE USING DATA FROM UNMANNED AIRCRAFT SYSTEMS

S.A. Kiselev
University of Technology Sydney, Sydney, Australia
A.A. Podberezkin, A.M. Borzenkov, A.V. Ostroukh, C.B. Pronin
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
DYNAMIC PRICING IN AIR CARGO: MACHINE LEARNING AND GENETIC ALGORITHM-BASED OPTIMIZATION

A.S. Kostin, A.I. Bolotova, E.A. Voznesenski
Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
FEATURES OF NAVIGATION OF UNMANNED SYSTEMS IN A CLOSED WAREHOUSE TO SOLUTION THE MONITORING PROBLEM

E.S. Kostin, A.S. Kostin
Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
METHODS AND APPROACHES FOR DETERMINING AND MODELING THE MOVEMENT OF AN UNMANNED SYSTEM BASED ON A SIMULATION ENVIRONMENT

N.N. Maiorov, M.R. Yazvenko
Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
DEVELOPMENT OF SIMULATION MODEL FOR SIMULTANEOUS SERVICE OF SCHEDULED AND RANDOM VESSELS AT SEA PASSENGER PORT

N.N. Maiorov, A.S. Kostin, V.A. Manakova
Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
ROUTING MODELS OF AUTONOMOUS UNMANNED SYSTEM FOR SOLVING PROBLEMS IN OBJECT IDENTIFICATION AT THE WAREHOUSE

Tatyana Malygina
Russian State Hydrometeorological University, Saint Petersburg, Russia
Alexander Slobodchikov
Ural Technical Institute of Communications and Informatics, Siberian State University of Telecommunications and Information Science, Yekaterinburg, Russia
DEVELOPMENT AND RESEARCH OF A DEVICE FOR STUDYING THUNDERSTORMS

M.I. Malyshev, A.A. Podberezkin, A.V. Ostroukh, C.B. Pronin, E.B. Khabarova
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
RESEARCH OF CHATBOT SCRIPT CREATING PROCESS FOR DIGITAL TRANSPORT LOGISTICS

Y.D. Nizyaeva, N.A. Slobodchikov
Saint-Petersburg State University of Aerospace Instrumentation (SUAI), St. Petersburg, Russia
METHODOLOGY FOR CALCULATING THE CARRIAGE FEE FOR OVERSIZED AND HEAVY CARGO BY ROAD TRANSPORT

Yu. A. Silin, A.A. Silina
St. Petersburg State University of Aerospace Instrumentation (SUAI), Saint Petersburg, Russia
ACHIEVING OPTIMAL FLIGHT CHARACTERISTICS FOR COAXIAL-TYPE UNMANNED AIRCRAFT SYSTEMS BY ADJUSTING THE PID-CONTROLLE

V.E. Taratun, A.A. Silina, E.A. Gaiduk
Saint-Petersburg State University of Aerospace Instrumentation, Saint-Petersburg, Russia
RESEARCH AND DEVELOPMENT OF A DIGITAL TWIN OF ST. PETERSBURG'S PUBLIC WATER TRANSPORT

Xiaoyang Hu
Shenyang Ligong University, Shenyang, Liaoning Province, China
A.Y. Fedorinov
St. Petersburg State University of Aerospace Instrumentation, St. Petersburg, Russia
Xiaoyi Liu
Shenyang Ligong University, Shenyang, Liaoning Province, China
V.V. Perliuk
St. Petersburg State University of Aerospace Instrumentation, St. Petersburg, Russia
RESEARCH OF THE TIME SYNCHRONIZATION ALGORITHM FOR A LOW-ORBIT GROUPING OF MICROSATELLITES

CHAPTER 10.
QUANTUM TELECOMMUNICATIONS

O.S. Belova
National Research University "Moscow Power Engineering Institute", Moscow, Russia
D.V. Bolotov, O.V. Kolesnikov
Moscow Technical University of Communications and Informatics, National Research University "Moscow Power Engineering Institute", Moscow, Russia
S.S. Zhulikov, T.K. Kivshar
National Research University "Moscow Power Engineering Institute", Moscow, Russia
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E.V. Burlakov
Moscow Technical University of Communications and Informatics, Moscow, Russia
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E.Y. Bushuev, S.Y. Kazantsev, E.P. Stroganova, S.E. Grychkin
Moscow Technical University of Communications and Informatics, Moscow, Russia
S.N. Kuznetsov
MOSTKOM JSC, Ryazan, Russia
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S.E. Grychkin, E.Y. Bushuev, D.V. Bolotov, S.Y. Kazantsev, E.P. Stroganova
Moscow Technical University of Communications and Informatics, Moscow, Russia
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T.V. Kazieva
Technology innovation institute, Abu Dhabi, UAE
J. Rabenandrasana, S.Yu. Kazantsev, D.V. Shkrabin, N.V. Pchelkina
Moscow Technical University of Communications and Informatics, Moscow, Russia
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N.V. Pchelkina, A.K. Nanidzhanyan, A.V. Bahus, M.A. Yarygin
Moscow Technical University of Communications and Informatics, Moscow, Russia
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M.V. Sapozhnikov, D.N. Terekhin, S.Y. Kazantsev
Moscow Technical University of Communications and Informatics, Moscow, Russia
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Roman Shakhovoy
QRate, Moscow, Russia
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E.P. Stroganova, E.Y. Bushuev, S.E. Grychkin, N.V. Pchelkina
Moscow Technical University of Communications and Informatics, Moscow, Russia
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