



Conference Program

15th International Conference on Advanced Trends in Radioelectronics, Telecommunications and Computer Engineering (TCSET - 2020)

in partnership with



**Lviv-Slavske, Ukraine
February 25-29, 2020**

TCSET-2020**ORGANIZERS**

- IEEE Ukraine Section
- IEEE MTT/ED/AP/EP/SSC Joint West Ukraine Chapter
- Lviv Polytechnic National University, Ukraine
- Military University of Technology, Poland

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CONFERENCE SECTIONS

Section ID	Section Title	Number of accepted papers
S0	Plenary Session	8
S1	Antennas, microwave technology, electromagnetic compatibility, radar systems, satellite communication, monitoring and positioning systems	18
S2	Information systems and technologies, computer-aided design	18
S3	Electronic circuits and signals, simulation of electro-technical and electro-energetic systems	27
S4	Electronics, photonics and innovative optical technologies: systems and devices, micro- and nanotechnologies	24
S5	Cybersecurity in ICT	19
S6	Internet of Things and biomedical engineering	19
S7	Information processing	18
S8	Telecommunications: wired and wireless systems, network services, simulation and management	30
S9	Models, algorithms, software and hardware construction means of information and communication, radio electronic devices and systems	30
ACCEPTED PAPERS, TOTAL		216
SUBMITTED PAPERS, TOTAL		282
ACCEPTANCE RATE		0,77

TIME LIMITS

Plenary session: up to 25 min	Regular sessions: up to 15 min
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PROGRAM AT A GLANCE

February 25 Tuesday	09:00-14:00	Registration
	14:30-16:00	Conference Opening and Plenary Session
	16:00-16:30	Coffee Break
	16:30-19:00	Plenary Session
February 26 Wednesday	09:00-13:00	Regular Sessions
	13:00-14:30	Lunch
	14:30-18:30	Regular Sessions/Coffee Break
	18:00-19:00	Poster Sessions
	20:00-EOD	Welcome Party
February 27 Thursday	08:00-20:00	Social and Entertainment Events
February 28 Friday	09:00-12:00	Regular Sessions
	12:00-13:30	Poster Sessions/Coffee Break
	13:30-14:30	Lunch
	14:30-18:30	Regular Sessions
February 29 Saturday	10:00-11:00	Conference Final Session

CONFERENCE TIMETABLE

Time	February 25 Tuesday	February 26 Wednesday					February 27 Thursday	February 28 Friday								
09:00	Registration	S1	S3	S4	S8	S9	Social and Entertainment Events	S2	S5	S6	S7					
10:00								Poster Sessions								
11:00								Lunch					Lunch			
12:00								Conference Opening and Plenary Session	S3	S4	S8	S9	S2	S5	S6	S7
13:00																
14:00																
14:30																
15:00	Coffee Break	Poster Sessions						Free Time								
16:00		Welcome Party														
16:30		Welcome Party														
18:00	Plenary Session	Welcome Party														
19:00		Welcome Party														
20:00	Free Time	Welcome Party					Free Time									

CONFERENCE OPENING

Tuesday, February 25

14.30 – 15.00

1.	<i>Yuriy Bobalo (Ukraine)</i> Welcome Speech and Participants Congratulation
2.	<i>Piotr Kaniewski (Poland)</i> Welcome Speech and Participants Congratulation
3.	<i>Ievgen Pichkalov (Ukraine)</i> Welcome Speech from IEEE Ukraine Section
4.	<i>Mykhaylo Andriychuk (Ukraine)</i> Welcome Speech from West Ukraine Chapter Chair

PLENARY SESSION

Tuesday, February 25

15.00 – 19.00

Co-Chairs:

Prof. **Mykhailo Klymash**, Lviv Polytechnic National University, Lviv, Ukraine

Prof. **Piotr Kaniewski**, Military University of Technology, Warsaw, Poland

1.	<i>Andriy Luntovskyy and Bohdan Shubyn</i> Highly-Distributed Systems Based on Micro-Services and their Construction Paradigms
2.	<i>Andrii Veryga, Ruslan Politanskyi, Valentin Lesinskyi and Tetiana Ruda</i> Analysis of Using of Fractal Signals for Noise Immune Information Transmission Systems
3.	<i>Oleksandr Lemeshko, Maryna Yevdokymenko and Oleksandra Yeremenko</i> Fast ReRoute Model with MultiMedia Quality Protection
4.	<i>Taras Maksymyuk, Juraj Gazda, Gabriel Bugar, Eugen Slapak, Longzhe Han and Mykhailo Klymash</i> Deep Learning based Mobile Network Management for 5G and Beyond
5.	<i>Vladimir Pavlikov, Mykola Nechyporuk, Huu Nguyen Van and Anton Sobkolov</i> Quasioptimal Spatiotemporal Signal Processing Algorithm for Radar Imaging
6.	<i>Jan Matuszewski and Dymitr Pietrow</i> Artificial neural networks in the filtration of radiolocation information
7.	<i>Mykhaylo Andriychuk</i> Analytical-Numerical Solution of the Problem of Electromagnetic Scattering on a Set of Perfectly Conducting Wires
8.	<i>Oleksandr Pliushch, Serhii Toliupa, Viktor Vyshnivskyi and Anatolii Rybydajlo</i> Studying behavior of the Gradient Signal Processing Algorithm for Adaptive Antenna Arrays in Telecommunication Environment
9.	<i>Olena Dashkovska, Vitaliy Pogrebnyak</i> Modernization of the Higher Education of Ukraine as a Guarantee of Integration in the European Educational Space

S1: Antennas, microwave technology, electromagnetic compatibility, radar systems, satellite communication, monitoring and positioning systems

Wednesday, February 26

09.00 – 13.00

Co-Chairs:

Prof. Yevhen Yashchynshyn (Poland) and
Prof. Mykhailo Andriychuk (Ukraine)

ORAL SESSION

1.	<i>Vitaliy Lishchenko, Hennadii Khudov, Kristina Tahyan, Oleksii Baranik, Dmytro Holovniak and Oleksii Serdiuk</i> The Method for forming The Detection Zone in the MIMO Radar System
2.	<i>Iryna Svyd, Ivan Obod, Oleksandr Maltsev and Borys Bakumenko</i> Comparative Analysis of Signal Processing Methods Identification Friend or Foe System
3.	<i>Yuriy Penkin, Oleksandr Dumin, Viktor Katrich and Mikhail Nesterenko</i> Waveguide Technique for Thin Metallic Film Surface Impedance Determination
4.	<i>V.V. Avrutov, L.M. Ryzhkov and Olga Sushchenko</i> Autonomous Determination of Vehicle Longitude
5.	<i>Igor Shubin, Svitlana Solonska, Stanislav Snisar, Volodymyr Zhyrnov and Vlad Slavhorodskyy, Damir Kalimullin and Anatoliy Popov</i> Frequency Dependence of Objects Eigen Polarization at UWB Remote Sensing
6.	<i>Anatoly Luchaninov, Vasiliy Lykhograi, Alexander Scherbina and Dmitriy Gretsikh</i> UWB Antenna for Specrum Monitoring Systems
7.	<i>Serhii Zhuk, Oleksandr Neuimin, Igor Tovkach and Viacheslav Chmelov</i> Adaptive algorithm for tracking maneuvering targets in a complex jamming environment for a radar with range rate measurement
8.	<i>Oleksandr Dumin, Vadim Plakhtij, Oleksandr Pryshchenko and Gennadiy Pochanin</i> Comparison of ANN and Cross-Correlation Approaches for Ultra Short Pulse Subsurface Survey
9.	<i>Valeriy Oborzhytskyy, Volodymyr Storozh and Yuriy Matiieshyn</i> Differential Impedance Transformer With Bandpass Filter Function
10.	<i>Viktor Hoblyk, Volodymyr Pavlysh, Oleksiy Liske and Nadia Hoblyk</i> Antennas converter of Thermal radiation into an information Signal for biomedical engineering

11.	<i>Dmytro Vovchuk, Pavlo Robulets and Serhii Haliuk</i> Development of Frequency Modulator with Split-Ring Resonator Loaded by Varactor Diode
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POSTER SESSION

1.	<i>Yana Zinher, Yuliia Adamenko, Volodymyr Adamenko and Evgeniy Nelin</i> Microstrip Lowpass Filters Based on Three-dimensional Sections and Stubs
2.	<i>Pavlo Robulets, Dmytro Vovchuk, Mykola Khobzei, Yevhenia Derevesnikova, Mychailo Apostolyuk and Leonid Politanskyi</i> Multiple Harmonic Signal Transfer Using Wire Media Structure
3.	<i>Igor Tovkach, Serhii Zhuk, Oleksandr Neuimin and Viacheslav Chmelov</i> Estimation of UAV movement parameters based on TDOA measurements of the sensor network in the presence of abnormal measurements
4.	<i>Serhii Shvorov, Vitaliy Lysenko, Natalia Pasichnyk, Oleksiy Opryshko, Dmytro Komarchuk, Yuriy Rosamakha, Anatolii Rudenskyi, Volodymyr Lukin and Artem Martsyfei</i> The method of determining the amount of yield based on the results of remote sensing obtained using UAV on the example of wheat
5.	<i>Vladimir Kartashov, Vladimir Oleinikov, Igor Koryttsev, Sergiy Sheiko, Oleh Zubkov, Stanislav Babkin and Ivan Selieznov</i> Use of Acoustic Signature for Detection, Recognition and Direction Finding of Small Unmanned Aerial Vehicles
6.	<i>Oleksandr Dumin, Vadim Plakhtii, Ilya Persanov and Shuaishuai Cao</i> Positioning System Using Classification of Ultra Short Electromagnetic Pulse Forms by ANN
7.	<i>Dmytro Vovchuk, Pavlo Robulets and Serhii Haliuk</i> Frequency modulation with split-ring resonator loaded by varactor diode
8.	<i>Damir Kalimullin and Anatoliy Popov</i> Frequency Dependence of Objects Eigen Polarization at UWB Remote Sensing

S2: Information Systems and Technologies, Computer-Aided Design

Friday, February 28

09.00 – 12.00

Co-Chairs:

Prof. Mykola Dyvak (Ukraine) and Prof. Vladimir Hahanov (Ukraine)

ORAL SESSION

1.	<i>Yurij Matiieshyn, Vitalij Nichoha and Volodymyr Storozh</i> Results of the development and research of information-diagnostic system for the magnetic flux leakage defectoscopy of rails
2.	<i>Mykhailo Klymash, Olena Hordiichuk- Bublivska, Ihor Tchaikovskiy and Yu. Deschynskiy</i> Modeling and Research of Processing Big Data Sets in Distributed Information Systems
3.	<i>Mykola Dyvak, Yurii Maslyiak, Iryna Voytyuk and Andriy Pukas</i> Information technology for monitoring and modeling the atmospheric pollution by harmful emissions from vehicles
4.	<i>Vugar Hacimahmud Abdullayev, Hanna Khakhanova, Ivan Hahanov, Vladimir Hahanov, Svetlana Chumachenko, Eugenia Litvinova and Olga Shevchenko</i> Structure and Metrics of Emerging Computing
5.	<i>Roman Melnyk and Ruslan Tushnytskyy</i> Detection of Defects in Printed Circuit Boards by Clustering the Etalon and Defected Samples
6.	<i>Evgeniy Lavrov, Olga Siryk, Nadiia Pasko, Oleksandr Burov and Natalia Morkun</i> Mathematical models for reducing functional networks to ensure the reliability and cybersecurity of ergatic control systems

POSTER SESSION

1.	<i>Evgeniy Lavrov, Olga Siryk and Nadiia Pasko</i> Information technology for assessing the working environment of operators as an element of the system for ensuring ergonomics and reliability of automated systems
2.	<i>Volodymyr Riznyk and Daniel Skrybaylo-Leskiv</i> Models of Vector Information Technologies
3.	<i>Valeriy Prokhorov, Olexandr Prokhorov, Ivan Nikolaev and Oleksii Shatalov</i> Formal and Logic Models of Knowledge and the Procedure for Logical Inference in the Problems of Recognition of Radio-emitting Objects and their States

4.	<i>Iryna Fefelova, Andrey Fefelov, Mariia Voronenko, Alexander Kornelyuk, Anatoliy Sachenko, Eduard Ryzhkov and Volodymyr Lytvynenko</i> Predicting the Protein Tertiary Structure by Hybrid Clonal Selection Algorithms on 3D Square Lattice
5.	<i>Vladislav Yelskyi, Kostiantyn Kasian and Mykola Kasian</i> Method for searching music compositions based on the spectral analysis
6.	<i>Hennadii Khudov, Igor Ruban, Oleksandr Makoveichuk, Irina Khizhnyak, Vladyslav Khudov and Vitaliy Lishchenko</i> The Model and The Method for Forming a Mosaic Sustainable Marker of Augmented Reality
7.	<i>Mykhailo Verkhola, Vitalii Bilan, Ulyana Panovyk and Ihor Huk</i> Integration of Rotary Sheet Cutting Machines into Production Management Information System

Friday, February 28

14.30 – 18.30

Co-Chairs:

Prof. **Mykola Dyvak (Ukraine)** and Prof. **Vladimir Hahanov (Ukraine)**

ORAL SESSION

1.	<i>Maryna Miroshnyk, Olexandr Shkil, Elvira Kulak, Dariia Rakhlis, Inna Filipenko and Anatolii Miroshnyk</i> Testable design of control digital automatic machines
2.	<i>Stanislav Popov, Mykola Ishchenko, Liudmyla Ishchenko and Dima Dyachenko</i> Methods and means of diagnosing the phenomenon of parametric resonance in the process of lifting vessels movement in the trenches of ore and coal mines
3.	<i>Viacheslav Oliinyk and Oleksii Rubel</i> Improving safety and ease of use in automatic electric vehicle rental systems
4.	<i>Roman Kinakh</i> Realistic water modeling and GPU-based rendering
5.	<i>Oleg Bisikalo, Ilona Bogach and Vladyslava Sholota</i> The Method of Modelling the Mechanism of Random Access Memory of System for Natural Language Processing
6.	<i>Oleksii Kovalenko, Vitalii Vishnevsky and Vladimir Kosolapov</i> Towards Creating the Network of Situational Governance Centers and Decision Making Technologies in Distributed Environments

S3: Electronic Circuits and Signals, Simulation of Electro-Technical and Electro-Energetic Systems

Wednesday, February 26

09.00 – 13.00

Co-Chairs:

Prof. **Vladimir Krizhanovski (Ukraine)** and Prof. **Oksana Hoholyuk (Ukraine)**

ORAL SESSION

1.	<i>Borys Kuznetsov, Ihor Bovdui and Tatyana Nikitina</i> Shielding Coils Design for Magnetic Field Active Shielding Based on Space-Time Characteristics
2.	<i>Vitalii Budashko, Oleg Onishchenko, Iryna Hvozdeva, Valerii Shevchenko and Ruslan Kudelkin</i> Improvement of the operation for electromechanical system under non-permanent loading
3.	<i>Yana Zinher, Yuliia Adamenko, Volodymyr Adamenko, Viktoriia Golovnia and Evgeniy Nelin</i> Delta Models of Oscillators and Passband Filters
4.	<i>Mykhailo Kotsur, Dmytro Yarymbash, Igor Kotsur and Serhiy Yarymbash</i> An Inductance Determination Of A Synchronous Machine With Combined Armature Winding By Field Simulation Methods
5.	<i>Ihor Shchur, Lidiia Kasha and Mykhaylo Bukavyn</i> Efficiency Evaluation of Single and Modular Cascade Machines Operation in Electric Vehicle
6.	<i>Dmytro Yarymbash, Mykhailo Kotsur, Serhiy Yarymbash, Iryna Kylymnyk and Tetyana Divchuk</i> Electromagnetic Properties Determination Of Electrical Steels
7.	<i>Andrey Movchanyuk, Ruslan Antypenko, Iryna Sushko, Nataliia Lashchevska and Alina Shulha</i> Synthesis of the bandpass filter with a predetermined phase error for generators with PLL for piezoceramic transducers
8.	<i>Omelyan Plakhtyna, Andriy Kutsyk and Mykola Semeniuk</i> An Explanation of the Oscillations of an Electromagnetic Torque of a Synchronous Generator, which are Caused by a Terminal Voltage Variation
9.	<i>Vladimir Krizhanovski, Volodymyr Kryzhanovskyi and Andrei Grebennikov</i> Class E oscillator with Two Switchable Frequencies

Wednesday, February 26

14.30 – 18.30

Co-Chairs:

Prof. Ivan Prudyus (Ukraine) and Prof. Oksana Hoholyuk (Ukraine)

ORAL SESSION

1.	<i>Mykola Mukha, Leonid Vishnevsky, Oleg Vishnevsky and Dmytro Vishnevsky</i> Voltage sensor of the autonomous generating set
2.	<i>Petro Stakhiv, Orest Hamola, Oksana Hoholyuk and Yuriy Kozak</i> The features of calculation of heterogeneous electric circuits described by macromodels
3.	<i>Volodymyr-Myron Miskiv, Nazar-Vasyl Naida, Ivan Prudyus and Sergiy Fabirovskyy</i> Aspects of Synthesis of Quasi-Orthogonal Code Sequence Sets Using Walsh Functions
4.	<i>Vasyl Malyar, Orest Hamola, Volodymyr Maday and Ivanna Vasylychshyn</i> Calculation Method of the Static Characteristics of an Asynchronous Electric Drive Under Cyclic Load
5.	<i>Oleksandr Derets, Oleksandr Sadovoi, Yevgeniya Derets and Hanna Derets</i> Criterion for Choosing the Integration Step Size for Simulation of Sliding Modes in Electric Drives
6.	<i>Yuriy Shapovalov, Volodymyr-Myron Miskiv, Dariya Bachyk and Ksenia Detsyk</i> Implementation of the Sub-Circuits Method in the System UDF MAOPCs of the Analysis of LTV Circuits in the Frequency Domain
7.	<i>Serhiy Rendzinyak and Vasyl Korud</i> Algorithm of Stability Control for Computational Procedures of Diakoptic Method of Time Domain Analysis of Heterogeneous Systems
8.	<i>Mykhailo Seheda, Oksana Hoholyuk, Petro Gogolyuk and Yuriy Blyznak</i> Mathematical Model of Periodic Wave Processes in the High-Frequency Transformer Windings of Power Sources

POSTER SESSION

1.	<i>Dmitry Zerbino and Daniel Skrybajlo-Leskiv</i> Packet synchronization and bug fixing in high-speed data channels using non-recurrent and Fibonacci codes
2.	<i>Roman Voliansky, Vitaliy Kuznetsov, Andri Pranolo, Yun Arifatul Fatimah, Irman Amri and Oleksiy Sinkevych</i> Sliding Mode Control for DC Generator with Uncertain Load
3.	<i>Marina Rezinkina, Oleg Rezinkin and Svitlana Lytvynenko</i> Simulation of Electrical Physical Processes in Electro-Energetic Systems at Thunderstorm Conditions
4.	<i>Roman Kryshchuk, Olexii Karlov and Andrii Bereziuk</i> Determination of Conditions for Adequate Analytical Simulation of the Electromagnetic Field of Disk Induction Motors
5.	<i>Iryna Hvozdeva, Volodymyr Myrhorod, Vitalii Budashko and Valerii Shevchenko</i> Problems of Improving the Diagnostic Systems of Marine Diesel Generator Sets
6.	<i>Ihor Shchur and Valentyn Turkovskyi</i> Comparative Study of Brushless DC Motor Drives with Different Configurations of Modular Multilevel Cascaded Converters
7.	<i>Zinovii Nytrebych and Oksana Malanchuk</i> On Simulation of Electromagnetic Fields Strength by Two-Point in Time Problem for Telegraph Equation
8.	<i>Dmytro Ustymenko, Oksana Marenych, Andrii Mukha, Mykola Tryputen, Vitaliy Kuznetsov, Maksim Kovzel, Oleksiy Sinkevych and Mohammad Ahmad Diab Al Said Ahmad</i> Development of a method of calculating the temperature of a survey assembly when preparing a train dispatch
9.	<i>Dmitry Maevsky, Oleksandr Besarab, Elena Maevskaya, Vladimir Berzan and Artem Savieliev</i> Ways and Reserves of Increasing the Efficiency of Electric Power Transmission Lines
10.	<i>Vladimir Berzan, Vladimir Patsyuk, Galina Rybacova, Dmitry Maevsky, Andriy Bojko and Elena Maevskaya</i> Long Line Mode Analysis with Superconducting Transformer
11.	<i>Yuriy Shurub, Alla Dudnyk and Inna Yakymenko</i> Simulation of Stochastical Dynamic Objects with Periodical Action
12.	<i>Yaroslav Paranchuk, Petro Stakhiv and Volodymyr Tsyapa</i> Research of Welding Power Source Modes

**S4: Electronics, Photonics and Innovative Optical Technologies:
Systems and Devices, Micro- and Nanotechnologies**

Wednesday, February 26

09.00 – 13.00

Co-Chairs:

Prof. Serhii Ubizskii (Ukraine) and Prof. Anatoliy Andrushchak (Ukraine)

ORAL SESSION

1.	<i>Yevhen Yashchyshyn, Dmytro Vynnyk, Vladimir Haiduchok and Ivan Solski</i> Experience of Full-Wave Electromagnetic Modeling of RF Transducers for Acousto-Optic Modulator
2.	<i>Alexandr Shmat'Ko, Eugene Odarenko, Viktorija Mizernik and Nataliia Shevchenko</i> Tunable Angular Spatial Filter Based on 1D Magnetophotonic Crystal
3.	<i>Inessa Bolshakova, Pavlo Horelkin, Yaroslav Kost, Anatoly Moroz, Yuriy Mykhashchuk, Maxim Radishevskiy, Fedor Shurygin, Oleksandr Vasyliiev, Thomas Kuech, Bohdan Pavlyk, Zhenxing Wang, Martin Otto and Daniel Neumaier</i> Nanofilm Materials for Devices of Magnetic Field Measurement in Radiation Environment
4.	<i>Jakub Sobolewski and Yevhen Yashchyshyn</i> Application of acousto-optical materials for modulation of sub-terahertz signal in coplanar structures
5.	<i>Olena Chernikova and Yaroslav Ogorodnik</i> Formation of epitaxial layers of CuO on Al (100) surface
6.	<i>Nataliia Demyanyshyn, Bohdan Mytsyk, Oleh Buryy and Anatoliy Andrushchak</i> Lead germanate: an advanced material for infrared electro-optic modulators
7.	<i>Oleh Buryy, Nadiia Chernovol and Anatoliy Andrushchak</i> The optimal geometries of phase matching in uniaxial non-linear optical crystals determined by extreme surfaces method
8.	<i>Igor Melnik, Sergey Tugay and Alina Pochynok</i> Interpolation Functions for Describing the Boundary Trajectories of Electron Beams Propagated in Ionised Gas
9.	<i>Iaroslav A. Osadchuk, Alexander V. Osadchuk, Vladimir S. Osadchuk and Andriy O. Semenov</i> Nanoelectronic Pressure Transducer with a Frequency Output Based on a Resonance Tunnel Diode

Wednesday, February 26

14.30 – 18.30**Co-Chairs:**Prof. **Serhii Ubizskii (Ukraine)** and Prof. **Anatoliy Andrushchak (Ukraine)****ORAL SESSION**

1.	<i>Zinoviy Mykytyuk, Hryhoryi Barylo, Maria Vistak, Iryna Kremer, Maria Ivakh and Taras Prystay</i> Increasing the noise immunity of amino acids optical sensors
2.	<i>Anatoly Druzhinin, Inna Maryamova, Oleksiy Kuttrakov and Mykhailo Svystak</i> High temperature strain sensors based on gallium phosphide whiskers
3.	<i>Volodymyr Fitio, Oleksandr Vernyhor, Andrii Bendzyak, Iryna Yaremchuk and Yaroslav Bobitski</i> Symmetric Nanowaveguide on Base of Metal and Dielectric Layers
4.	<i>Khrystyna Ivaniuk, Pavlo Stakhira, Igor Helzhynskyy, Stepan Kutsiy, Zenon Hotra, Titas Deksnys, Dmytro Volyniuk, Juozas Vidas Grazulevicius and Volodymyr Gorbulic</i> Contribution of fluorescence and exciplex emission into efficient white OLED
5.	<i>Nazariy Andrushchak, Dmytro Vynnyk, Yevhen Yashchyshyn, Volodymyr Haiduchok, Anatoliy Andrushchak, Pawel Bajurko and Konrad Godziszewski</i> Estimation of the Diffraction Efficiency of Oxide Single Crystals Acousto-Optic Devices in the Sub-Terahertz Frequency Range
6.	<i>Sergii Ubizskii, Denis Afanassyev, Yaroslav Zhydachevskii, Vasyl Rabyk and Andriy Lucheckko</i> Concept development of a portable reader for personal dosimetry based on the OSL in YAP:Mn
7.	<i>Oleksandr Yanchuk, Oleg Marchuk, Galyna Myronchuk, Iryna Moroz, Nazariy Andrushchak, Oleksii Vyshnevskyy, Iwan Kityk, Andriy Kityk, Katarzyna Ozga, Jaroslaw Jedryka, Artur Wojciechowski and Anatoliy Andrushchak</i> CdS Nanocrystallines: Synthesis, Structure and Nonlinear Optical Properties

POSTER SESSION

1.	<i>Taras Chaikivskyi, Bogdan Sus' and Alla Hunkalo</i> Microcontroller Based Multi-Channel Sensor System for Monitoring the Quality of Spirit Beverages
2.	<i>Bohdan Mytsyk, Yuriy Suhak, Oleh Buryy, Nataliya Demyanyshyn, Natalya Syvorotka, Dmytro Sugak and Holger Fritze</i> New advanced material for photoelastic and acousto-optic modulation of light in UV spectral range. Piezo-, elasto- and acousto-optic properties of CTGS crystal
3.	<i>Oleksandr Osadchuk, Volodymyr Martyniuk, Tetiana Sydoruk, Mariya Evseeva, Olena Semenova and Iaroslav Osadchuk</i> The Impact Of Temperature And Magnetic Field On Physical Parameters Of The Strontium-Containing Heterometallic Coordination Compound Of Copper(Ii)
4.	<i>Pawel Bajurko, Konrad Godziszewski, Yevhen Yashchyshyn, Dmytro Vynnyk, Volodymyr Haiduchok and Ivan Solskii</i> Determination of Bi₁₂SiO₂₀ permittivity and loss tangent in the 220–325 GHz band and the influence of UV exposure on these parameters
5.	<i>Anatoly Druzhinin, Igor Ostrovskii, Yuriy Khoverko, Victor Holota, Igor Kogut and Taras Benko</i> Frequency response in polycrystalline silicon films of SemOI-structures
6.	<i>Oleg Yaremko, Volodymyr Adamiv, Ihor Teslyuk, Yaroslav Shchur, Maryan Kyryk and Anatoliy Andrushchak</i> Nanocrystallites formed on the basis of nanoporous membranes Al₂O₃ from saturated water solution KH₂PO₄
7.	<i>Yuliya Nykyruy, Stepan Mudry, Vitalii Prunitsa and Bohdan Venhryn</i> Structure Investigation of Rapidly Quenched Al₆₅Si₂₅Ni₁₀ Amorphous Alloy After Izothermal Annealing
8.	<i>Olga Buryk, Anatoly Druzhinin and Valeriy Yerokhov</i> Calculation of Efficiency in Solar Cell Based on Porous Silicon
9.	<i>Alexander Gritsunov, Igor Bondarenko, Alexey Pashchenko, Oksana Babychenko and Eugene Odarenko</i> On the Quantum Electrodynamics of Nanophotonic Systems

S5: Cybersecurity in ICT

February 28, Friday

09.00 – 12.00

Co-Chairs:

Prof. Serhiy Toliupa (Ukraine) and Prof. Ivan Demydov (Ukraine)

ORAL SESSION

1.	<i>Zhihui Cheng, Mykola Beshley, Halyna Beshley, Orest Kochan and Oksana Urikova</i> Development of Deep Packet Inspection System for Network Traffic Analysis and Intrusion Detection
2.	<i>Mykhailo Klymash, Olha Shpur, Nazar Peleh, Svitlana Hladun and Bohdan Buhil</i> Monitoring of Web Service Availability in Distributed Infocommunication Systems
3.	<i>Vladimir Barannik, Yuriy Ryabukha and Natalia Barannik</i> Indirect Steganographic Embedding Method Based On Adaptive Position Number Functionality Use
4.	<i>Fatih Özkaynak and Zahir Muhammad Ziad Muhammad</i> A Cryptographic Confusion Primitive Based on Lotka–Volterra Chaotic System and Its Practical Applications in Image Encryption
5.	<i>Roman Voliansky, Oleg Kluev, Oleksandr Sadovoi, Oleksiy Sinkevych and Nina Volianska</i> Chaotic Time-variant Dynamical System
6.	<i>Iryna Dmytrieva and Oleksandr Oksiuk</i> Security and privacy issues of blockchain technology

POSTER SESSION

1.	<p><i>Dawei Dong, Ye Zhiwei, Jun Su, Shiwei Xie, Yu Cao and Roman Kochan</i></p> <p>A Malware Detection Method Based on Improved Fireworks Algorithm and Support Vector Machine</p>
2.	<p><i>Stepan Ivasiev, Ihor Yakymenko, Mykhailo Kasianchuk, Oksana Gomotiuk, Grygorii Tereshchuk and Pavlo Basistyi</i></p> <p>Elgamal cryptoalgorithm on the basis of the vectormodule method of modular exponentiation and multiplication</p>
3.	<p><i>Volodymyr Maksymovych and Andrii Malohlovets</i></p> <p>Design and FPGA prototype of modified Blum-Blum-Shub pseudorandom sequence generator</p>
4.	<p><i>Oleksii Bychkov, Kateryna Merkulova and Yelyzaveta Zhabska</i></p> <p>Information Technology of Person's Identification by Photo Portrait</p>
5.	<p><i>Mykola Kushnir, Hryhorii Kosovan, Petro Krojalo and Andrii Komarnytskyi</i></p> <p>Encryption of the images on the basis of two chaotic systems with the use of fuzzy logic</p>
6.	<p><i>Yuliia Pyrih, Mykola Kaidan, Bohdan Strykhalyuk and Viktoriia Zhebka</i></p> <p>A Modified Simulated Annealing Algorithm Based on Principle of the Greedy Algorithm for Networks with Mobile Nodes</p>
7.	<p><i>Petro Snitsarenko, Oleksii Zahorka, Andrii Koretskyi, Yurii Sarychev and Volodymyr Tkachenko</i></p> <p>Expert methods application to assess information security threats impact in the military sphere</p>

February 28, Friday

14.30 – 18.30

Co-Chairs:

Prof. **Serhiy Toliupa (Ukraine)** and Prof. **Ivan Demydov (Ukraine)****ORAL SESSION**

1.	<i>Mykhailo Klymash, Ivan Demydov, Yuliia Pyrih and Leonid Uryvskiy</i> A Brief Survey on Architecture of Feedback Systems for Interactive E-Government ICT Platforms
2.	<i>Serhii Toliupa, Volodymyr Nakonechnyi, Liudmyla Tereikovska, Ihor Tereikovskiy, Oleh Tereikovskiy and Yurii Kulakov</i> Keyboard Dynamic Analysis By Alexnet Type Neural Network
3.	<i>Oksana Mnushka and Volodymyr Savchenko</i> Security Model of IOT-based System
4.	<i>Sergii Surkov</i> Model and method of chunk processing of payload for HTTP authorization protocols
5.	<i>Valeriy Dudykevych, Ivan Opirskyy, Petro Haraniuk, Larysa Rakobovchuk and Nazarii Dzianyi</i> Impact research of sound vibration frequencies to the laser beam response of the most common Ukrainian glass
6.	<i>Igor Atamanyuk</i> Algorithm of Pre-whitening on the Basis of the Polynomial Canonical Expansion of Random Sequences

S6: Internet of Things and Biomedical Engineering

February 28, Friday

09.00 – 12.00

Co-Chairs:

Prof. **Roman Holyaka (Ukraine)** and
 Prof. **Volodymyr Lukin (Ukraine)**

ORAL SESSION

1.	<i>Dmytro Fedasyuk, Roman Holyaka and Tetyana Marusenkova</i> Signal Chain of Programmable System on Chip for Magnetic Tracking Sensors
2.	<i>Zhengbing Hu, Mykola Beshley, Vitalii Vrublevskyi, Volodymyr Taras and Su Jun</i> Modified EIRGP Routing Protocol for Backbone Infrastructure of Wireless Multimedia Sensor Networks
3.	<i>Nazar Kostyk and Solomiya Lebid</i> Physical workloads vs Cognitive tasks performance - mobile monitoring capabilities
4.	<i>Yuriy Romanyshyn, Sergei Yelmanov, Hryhoriy Vaskiv and Igor Grybyk</i> Bifurcations Features of the Hodgkin-Huxley Neuron Model
5.	<i>Igor Khudetskyi, Yuliya Antonova-Rafi, Mariia Hleza, Valeriy Antonov and Valentina Zaitseva</i> Investigation of biomechanical characteristics of materials for endocardial implants
6.	<i>Cornelia Tovstyuk</i> Mathematical Modeling of Epidemic Spread for Diseases with Different Virulence Indexes

POSTER SESSION

1.	<i>Oleh Viunytskyi, Vyacheslav Shulgin, Alexander Totsky and Valery Sharonov</i> Non-invasive Cuff-less Measurement of Blood Pressure Based on Machine Learning
2.	<i>Andriy Tkachuk, Roman Tkachuk, Oleksiy Yanenko and Konstantin Shevchenko</i> Automated implant testing system for intraocular pressure adjustment
3.	<i>Polina Zhernova, Yevgeniy Bodyanskiy, Bohdan Yatsenko and Igor Zavgorodnii</i> Detection and prevention of professional burnout using machine learning methods
4.	<i>Hanna Melnyk, Igor Khudetsky, Yuliia Antonova-Rafi and Artem Bospalenko</i> Manufacturing technology of individual stump socket for prevention of re-amputation at prosthetics of lower extremities
5.	<i>Serhiy Kovbasiuk, Leonid Kanevskyy, Mykola Romanchuk and Sergiy Chernyshuk</i> Detection of vehicles on images obtained from unmanned aerial vehicles using instance segmentation
6.	<i>Svitlana Popereshnyak</i> One Way of Testing of Lightweight Pseudorandom Number Generator for Securing the Internet of Things
7.	<i>Zhengbing Hu, Volodymyr Buriachok, Volodymyr Sokolov, Bohdan Vovkotrub and Yevhen Zotkin</i> Bandwidth Research of Wireless IoT Switches
8.	<i>Bogdan Shevchuk, Yuriy Brayko, Orest Ivakhiv, Mykhaylo Geraimchuk and Roman Velgan</i> Effective and Secure Transmission of Monitoring Signals and Frames of Video Data Samples Serving Internet of Things

February 28, Friday

14.30 – 18.30

Co-Chairs:

Prof. **Roman Holyaka (Ukraine)** and
 Prof. **Volodymyr Lukin (Ukraine)**

ORAL SESSION

1.	<i>Konstantyn Shevchenko, Oleksiy Yanenko, Sergey Peregudov, Vladislav Malanchuk and Oleksandra Golovchanska</i> Investigation of the electromagnetic properties of bone and soft tissue regeneration materials
2.	<i>Sergii Zlepko, Leonid Koval, Dmytro Shtofel, Viktor Homolinskyi and Mykhailo Palamarchuk</i> Peculiarities of Psycho-Physiological Selection of Operators for Unmanned Aviation Systems
3.	<i>Stanislav Krivenko, Valeriy Bezruk, Liudmyla Kryvenko and Sergey Krivenko</i> The technique of implementation Security into Clinical Internet of Things
4.	<i>Iryna Perova, Yevgeniy Bodyanskiy, Yelizaveta Brazhnykova and Nelia Miroshnychenko</i> Information Technology for Medical Data Stream Mining
5.	<i>Iurii Krak, Anatolii Pashko, Oleg Khorozov, Oleg Stelia and Mykola Efremov</i> Classification Electrocardiogram using Wavelet Transformations

S7: Information Processing

February 28, Friday

9.00 – 12.00

Co-Chairs:

Prof. Bohdan Rusyn (Ukraine) and Prof. Yuriy Romanyshyn (Ukraine)

ORAL SESSION

1.	<i>Vadim Shergin, Larysa Chala and Serhii Udovenko</i> Statistical Properties of the Hurst Exponent Estimates for Fractional Levy Motion
2.	<i>Sergei Yelmanov and Yuriy Romanyshyn</i> A New Technique of Image Enhancement by Intensity Transformation
3.	<i>Taras Mykhailovych and Mykhailo Fryz</i> Information Technology for Water Consumption Forecasting Based on Periodic Autoregressive Model
4.	<i>Roman Melnyk and Yurii Kalychak</i> Face image barcodes by distributed cumulative histogram and clustering
5.	<i>Sergiy Prykhodko, Lidiia Makarova, Kateryna Prykhodko and Andrii Pukhalevych</i> Application of Transformed Prediction Ellipsoids for Outlier Detection in Multivariate Non-Gaussian Data
6.	<i>Sergiy Prykhodko, Natalia Prykhodko, Lidiia Makarova and Andrii Pukhalevych</i> Outlier Detection in Non-Linear Regression Analysis Based on the Normalizing Transformations

POSTER SESSION

1.	<i>Dmytro Kushnir and Yaroslav Paramud</i> Model for real-time object searching and recognizing on mobile platform
2.	<i>Sergei Yelmanov and Yuriy Romanyshyn</i> Quantifying the Perceived Contrast of Complex Images
3.	<i>Borys Bakay, Ihor Rudko, Stanislav Horzov and Iryna Brohovska</i> Development of a Green-Based Quantitative Assay Using Time Series to Detect Risks
4.	<i>Rostyslav Kosarevych, Oleksiy Lutsyk, Valentyna Korniy and Bohdan Rusyn</i> Image Noise Filtering By Random Point Processes
5.	<i>Galina Proskura, Vladimir Lukin and Irina Vasil'eva</i> Analysis of Improvement of Noisy Multichannel Image Controlled Pixel-by-Pixel Classification by Post-Classification Processing
6.	<i>Oleg Mashkov, Viktor Chumakevych, Vadym Ptashnyk and Igor Puleko</i> Extrapolation Problems in Creation of Recovery Control in Discrete Systems
7.	<i>Vladimir Barannik and Valeriy Barannik</i> Binomial-Polyadic Binary Data Encoding by Quantity of Series of Ones
8.	<i>Qian Huang, Wei Liu and Roman Kochan</i> Image Quality Evaluation Based on Support Vector Machine and Improved Grid Search Algorithm

February 28, Friday

14.30 – 18.30

Co-Chairs:

Prof. Bohdan Rusyn (Ukraine) and Prof. Yuriy Romanyshyn (Ukraine)

ORAL SESSION

1.	<i>Fangfang Li, Sergey Krivenko and Vladimir Lukin</i> A Two-step Approach to Providing a Desired Visual Quality in Image Lossy Compression
2.	<i>Artur Dovbysh and Vladyslav Aliksieiev</i> Development and integration of speech recognition tools into software applications and an approach to improve of speech recognition quality
3.	<i>Nataliia Manakova and Volodymyr Tkachenko</i> Two-stage time-series clustering approach under reducing time cost requirement
4.	<i>Vladimir Barannik, Yurii Babenko, Vadym Fustii, Victoriya Himenko and Anna Hahanova</i> Technology of Composite Code Forming in The Spatial-Spectral Description Significant Microsegments
5.	<i>Rostyslav Tsekhmystro, Viacheslav Oliinyk, Galina Proskura and Oleksii Rubel</i> Web Assembled Benchmark for Image Visual Quality Assesment, Prediction and Improvement

S8: Telecommunications: Wired and Wireless Systems, Network Services, Simulation and Management

Wednesday, February 26

9.00 – 12.00

Co-Chairs:

Prof. **Ruslan Politanskyi (Ukraine)** and
Prof. **Oleksandr Lemeshko (Ukraine)**

ORAL SESSION

1.	<i>Gennadiy Bortnyk, Mikola Vasytkivskyi and Vasyl Kychak</i> Method of Improvement of Jitter Signal Correction Productivity in Telecommunication Systems
2.	<i>Ivan Obod, Iryna Svyd, Oleksandr Maltsev and Borys Bakumenko</i> Spatial Methods for Increasing the Bandwidth of a Mobile Information Network
3.	<i>Volodymyr Fast and Larysa Hlinenko</i> Evaluation of electronic components overheating on printed circuit boards
4.	<i>Oleksandr Oksiuk and Vadym Krotov</i> Modeling Information Flows in a Tactical Radio Networks
5.	<i>Oleksandr Lemeshko, Oleksandra Yeremenko, Maryna Yevdokymenko and Ahmad M. Hailan</i> Tensor Based Load Balancing under Self-Similar Traffic Properties with Guaranteed QoS
6.	<i>Mykola Brailovskyi, Volodymyr Saiko, Serhii Toliupa, Teodor Narytnik and Volodymyr Nakonechnyi</i> Increasing Noise Immunity Between LEO Satellite Radio Channels
7.	<i>Anatolii Lozhkovskyi</i> Approximation of the System States Distribution and Calculating of the Waiting Probability in the One-channel System with Self-similar Traffic
8.	<i>Volodymyr Andrushchak, Mykola Kaidan, Stepan Dumych, Olena Dashkovska and Halyna Kopets</i> Deep Learning based Traffic Optimization in Optical Transport Networks
9.	<i>Mykola Kozlenko and Vira Vialkova</i> Software Defined Demodulation of Multiple Frequency Shift Keying with Dense Neural Network for Weak Signal Communications
10.	<i>Valery Romaniuk, Alexandr Zhuk and Eugen Stepanenko</i> Multicriteria topology management ground-to-air networks

11.	<i>Mykola Kushnir, Hryhorii Kosovan, Petro Krojalo and Andrii Komarnytskyy</i> Encryption Of The Images On The Basis Of Two Chaotic Systems With The Use Of Fuzzy Logic
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POSTER SESSION

1.	<i>Vasyl Kychak, Mikola Vasylykivskyi, Maksym Huz and Volodymyr Kychak</i> High-Sensitivity Devices for Processing of Microwave Signals Based on the Josephson Effect
2.	<i>Andriy Semenov, Dmytro Havrilov, Andrii Volovik, Serhii Baraban, Anton Savytskyi and Oleksandr Zviahin</i> Simulation of the Chaotic Dynamics of the Deterministic Chaos Transistor Oscillator based on the Hartley Circuit
3.	<i>Volodymyr Tolubko, Liubov Berkman, Larysa Kriuchkova and Volodymyr Pshonnik</i> Situation Management of a Self – Organized Information Transmission Network in Fast Deployment Security Systems
4.	<i>Mykhailo Fryz and Bogdana Mlynko</i> Properties of Stationarity and Cyclostationarity of Conditional Linear Random Processes
5.	<i>Oleg Gofaizen and Olena Mazurkiewicz</i> Two Approaches to Colour Management in Video Applications
6.	<i>Mykola Brailovskyi, Volodymyr Saiko, Teodor Narytnik, Nataliia Lukova-Chuiko and Volodymyr Nakonechnyi</i> Terahertz Range Interconnecting Line For LEO-System
7.	<i>Anatolii Pashko, Olga Sinyavska and Tetiana Oleshko</i> Simulation of Fractional Brownian Motion and Estimation of Hurst Parameter
8.	<i>Ivan Lesovoy and Igor Makarov</i> Variation approach to signal synthesis with minimal energy outside the operating frequency band
9.	<i>Volodymyr Pelishok, Ihor Tchaikovskyy, Bohdan Koval and Gennadi Malaschonok</i> Optimization of Digital Modulation of Radio Systems Based on Generalized Characteristics
10.	<i>V. M. Onufrienko, T. I. Slyusarova and L. M. Onufriyenko</i> Modeling Characteristics Of Field-Effect Fractal Nanotransistor
12.	<i>Roksoliana Basa, Dariusz Mrozek, Orest Lavriv and Olena Krasko</i> Automation Process Of Telecommunication Networks Deployment in Microsoft Azure Cloud Technology

Wednesday, February 26

14.30 – 18.30

Co-Chairs:

Prof. **Andriy Luntovskyy (Germany)** and
 Prof. **Oleksandra Yeremenko (Ukraine)**

ORAL SESSION

1.	<i>Viacheslav Oliinyk and Vladimir Lukin</i> Time Delay Estimation for Noise-Like Signals Embedded in Non-Gaussian Noise Using Pre-filtering in Channels
2.	<i>Ivan Obod, Iryna Svyd, Oleksandr Maltsev, Ganna Zabolodko and Daria Pavlova</i> Evaluation of Measuring Accuracy of the Airborne Object Azimuth when Fusion the Primary Data Radar Observation Systems
3.	<i>Andriy Bondariev, Ivan Maksymiv and Serhiy Altunin</i> Simulation and Experimental Research of the Enhanced BPSK and QPSK Demodulator
4.	<i>Mykola Beshley, Andrii Pryslupskyy, Oleksiy Panchenko and Marian Seliuchenko</i> Dynamic switch migration method based on QoE-aware priority marking for intent-based networking
5.	<i>Bohdan Shubyn, Nazarii Lutsiv, Oleh Syrotynskyy and Roman Kolodii</i> Deep Learning based Adaptive Handover Optimization for Ultra-Dense 5G Mobile Networks
6.	<i>Zhengbing Hu, Halyna Beshley, Natalia Diachenko, Su Jun and Ihor Kahalo</i> The Method of Adaptive Radio Coverage Formation of Wireless Network Based on the Wi-Fi controller
7.	<i>Mykola Beshley, Mykhailo Klymash, Myroslav Hamal and Yura Shkoropad</i> Method for Estimating Service Delay in Edge and Cloud Computing Architecture
8.	<i>Yaroslav Sadykov, Volodymyr Sokolov, Dmytro Ageyev and Anders Carlsson</i> Sustainability Research of the Secure Wireless Communication System with Channel Reservation
9.	<i>Maryan Kyryk, Nazar Pleskanka, Mariana Pleskanka and Petro Nykonchuk</i> Load Balancing Method in Edge Computing
10.	<i>Irina Strelkovskaya, Irina Solovskaya and Anastasiya Makoganiuk</i> Prediction of 5G network multimedia data characteristics
11.	<i>Tenshi Hara, Andriy Luntovskyy, Iris Braun, Tommy Kubica</i> Designing IT Curriculum to Foster Self-Regulated Learning through Peer Instruction and Audience Response System

**S9: Models, Algorithms, Software and Hardware Construction
Means of Information and Communication, Radio Electronic
Devices and Systems**

Wednesday, February 26

09.00 – 13.00

Co-Chairs:

Prof. **Dmytro Fedasyuk (Ukraine)** and Prof. **Ivan Horbatyi (Ukraine)**

ORAL SESSION

1.	<i>Chaewon Im, Seongjin Ahn and Dongweon Yoon</i> Modulation Classification Based on Kullback-Leibler Divergence
2.	<i>Leonid Ozirkovskyy, Bohdan Volochiy, Mykhailo Zmysnyi and Oleksandr Shkiliuk</i> Increase of Functional Safety of the Behavior Algorithms of Radio Electronic Safety-Critical Systems
3.	<i>Oleksandr Drozd, Ihor Perebeinos, Oleksandr Martynyuk, Kostiantyn Zashcholkin, Olena Ivanova and Myroslav Drozd</i> Hidden fault analysis of FPGA projects for critical applications
4.	<i>Yuriy Salnyk, Bohdan Volochiy and Volodymyr Onyshchenko</i> Stochastic Model Of The Reaction The Unattended Ground Sensor System Based On {3+3} Scheme
5.	<i>Oksana Pichugina and Olha Matsyi</i> Boolean Satisfiability Problem: Discrete and Continuous Reformulations With Applications
6.	<i>Serhii Toliupa, Ihor Subach and Volodymyr Sokolov</i> Hybrid approach to building object-oriented programs with databases
7.	<i>Ivan Horbatyi, Myroslav Kiselychnyk, Ivan Tsymbaliuk and Natalia Diachenko</i> Digitally Controlled RF Phase Shifter
8.	<i>Sergey Pidchenko, Alla Taranchuk, Maksym Slobodian and Roman Durda</i> Invariant Two-frequency Quartz Oscillators Based on Dual-loop Automatic Frequency Control Systems

Wednesday, February 26

14.30 – 18.30

Co-Chairs:

Prof. Dmytro Fedasyuk (Ukraine) and Prof. Ivan Horbatyi (Ukraine)

ORAL SESSION

1.	<i>Yuriy Bobalo, Myroslav Kiselychnyk, Igor Medynsky and Mykhailo Melen</i> Determination of the Optimal Period of Telecommunication Systems Performance Control with Complex Control and Recovery System
2.	<i>Oleksandr Myronchuk, Oleksandr Shpylka and Serhii Zhuk</i> Algorithm of channel frequency response estimation in OFDM systems based on Kalman filter
3.	<i>Olga Zaichenko, Marina Miroshnyk, Pavlo Galkin and Nataliia Zaichenko</i> Six-port Reflectometer with Kalman Filter Processing of Sensor Signals
4.	<i>Vasyl Sheketa, Mykola Demchyna, Volodymyr Pikh, Yulia Romanyshyn, Mykola Pasyeka and Lidiia Hobyr</i> Formal Outlines of the Technique for Making Optimal Decisions in the Process of Wells Drilling
5.	<i>Andriy Samila and Oleksandra Hotra</i> A portable digital multipulse NQR spectrometer for the study of the sensory properties, structure and defects in layered semiconductors
6.	<i>Juliy Boiko, Ilya Pyatin and Oleksander Eromenko</i> Farrow Interpolator Features in QPSK Telecommunication Devices
7.	<i>Ivan Yashanov, Olga Shcherbyna, Maksym Zaliskyi, Olena Kozhokhina, Roman Odarchenko and Lidiia Tereshchenko</i> Diagnostics Program Efficiency Analysis for Antenna System
8.	<i>Valerii Koval, Dmytro Kalian, Oleksandr Osinskiy, Oleksandr Samkov, Mykola Khudyntsev and Vitaliy Lysenko</i> Diagnostics of Time Synchronization Means of the Integrated Power Grid of SMART Technologies by Using an Optimal Performance System of Automatic Frequency Adjustment
9.	<i>Pavel Fastykovsky, Michael Glauberman and Yaroslav Lepikh</i> Autonomous compact seismic device for detection and recognition of moving person and vehicles
10.	<i>Valeriy Prokhorov, Olexandr Prokhorov, Ivan Nikolaev and Oleksii Shatalov</i> Formal and Logic Models of Knowledge and the Procedure for Logical Inference in the Problems of Recognition of Radio-emitting Objects and their States

POSTER SESSION

1.	<i>Olha Matsyi</i> Basic problems of closed routes optimization and ways of perfection of their solution methods
2.	<i>Zhiwei Ye, Fengwen Wang and Roman Kochan</i> Image enhancement based on Whale Optimization Algorithm
3.	<i>Svitlana Hrushko, Irina Zeleneva, Artur Timenko and Galina Kirichek</i> Algorithm implementation of the onboard control complex arbitration subsystem
4.	<i>Taras Grynchyshyn, Volodymyr Hryha, Artur Voronych and Mykhaylo Ilko</i> Special Processors Simulation for Forming and Digital Processing of Error-Correcting Codes in Computer Systems
5.	<i>Kateryna Obukhova, Iryna Zhuravska and Volodymyr Burenko</i> Diagnostics of Power Consumption of a Mobile Device Multi-Core Processor with Detail of Each Core Utilization
6.	<i>Olena Romanenko and Konstantin Sunduchkov</i> Mathematical models in the method of multicriteria optimization of a satellite network for distribution of TV programs
7.	<i>Yuriy Bobalo, Myroslav Kiselychnyk and Leonid Nedostup</i> Actual Issues of Providing a Quality of Electronic Apparatus
8.	<i>Bogdan Dzundza, Roman Dunets and Oksana Kostyuk</i> Specialized hardware and software for the study of thermoelectric properties of semiconductor
9.	<i>Mykola Dyvak and Natalia Porplytsya</i> Modified artificial bee colony algorithm for identification of a discrete model of atmospheric pollution dynamics by nitrogen dioxide
10.	<i>Ievgen Zaitsev, Andrey Shpylka and Nikolay Shpylka</i> Output Signal Processing Method For Fiber Bragg Grating Sensing System
11.	<i>Bohdan Volochiy, Vasyl Yakubenko and Mykhailo Zmysnyi</i> The Reliability Model of Fault-Tolerant System with the Majority Structure and Considering the Change in the Failure Rate of the Core Module During Operation
12.	<i>Geunbae Kim, Mingyu Jang, Dongweon Yoon and Chaewon Im</i> Simple Method for Interleaver Parameter Estimation

SLAVSKE MAP

