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Program book

**September 7-11, 2020
Istanbul, Turkey**

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Serhii Kryvosheiev	Dr., National Technical University “Kharkiv Polytechnic Institute”, Ukraine
Bohdan Styslo	Dr., National Technical University “Kharkiv Polytechnic Institute”, Ukraine

SCHEDULE OF CONFERENCE

Time	07/09/2020 Monday	08/09/2020 Tuesday	09/09/2020 Wednesday	10/09/2020 Thursday	11/09/2020 Friday
10:00	Online Conference Registration	Opening Ceremony	Online Section # 2	Online Section # 4	
10:30		Plenary Section			
11:00					
11:30		Break	Break	Break	
12:00		Plenary Section	Online Section # 2	Online Section # 4	
12:30					
13:00		Lunch	Lunch	Lunch	
13:30					
14:00		Online Section # 1	Online Section # 3	Closing Ceremony	
14:30					
15:00		Break	Break		
15:30					
16:00		Online Section # 1	Online Section # 5		
16:30					
17:00					

OPENING CEREMONY

Prof. Yevgen Sokol, *Rector of National Technical University “Kharkiv Polytechnic Institute”*

Prof. Ibrahim Akduman, *Dean of Istanbul Technical University Faculty of Electrical and Electronics Engineering*

Mr. Ievgen Pichkalov, *Vice Chair of IEEE Ukraine Section*

PLENARY SECTION

1. MEANS OF ELECTROMAGNETIC COMPATIBILITY PROVIDING IN LOCAL ELECTRICITY NETWORKS UNDER DISTRIBUTED GENERATION DEVELOPMENT

Prof. Volodymyr Novskyi

Institute of Electrodynamics of the National Academy of Sciences of Ukraine

2. PHYSICAL AND MATHEMATICAL MODELLING OF ELECTROPHYSICAL PROCESSES FOR SOLUTION OF ELECTROMAGNETIC COMPATIBILITY PROBLEMS

Prof. Marina Rezinkina

National Technical University “Kharkiv Polytechnic Institute”

3. DESIGN OF HIGH FREQUENCY TRANSFORMER FOR ISOLATED BRIDGE-TYPE PFC CONVERTER

Mr. Denys Zinchenko

Tallinn University of Technology

SECTION 1. MODERN ENERGY SYSTEMS AND POWER ELECTRONICS

# CMT	Authors	Paper Title
13	Kamel Laidi (University of Medea)	Neural Nets Based Approach for 2-Cells Serial Converter Control
14	Jin Kwon Hwang (Uoosuk University)	Identification of Subsynchronous Oscillations by Bandpass Filtering of Power System Frequency
23	Evgen Vasechko (Impuls) Valery Kolosov (Impuls)	Selection an Effective Implementation of a Multiphase Isolated DC-DC Converter
28	Badri Rekik (Higher School of Industrial Technologies)	Contribution of the insertion a phase-shifting transformer (PST) in the Algeria / Tunisia interconnection network
31	Taras Mysak (Institute of Electrodynamics of the National Academy of Sciences of Ukraine) Ivan Shapoval (Institute of Electrodynamics of the National Academy of Sciences of Ukraine)	A simple control strategy for a three-phase shunt active power filter based on second-order sliding mode
37	Thameur Abdelkrim (URAER) Noureddine Bouarroudj (URAER) Abdelhalim Borni (URAER) Boualam Benlahbib (URAER) Abdelkader Lakhdari (URAER) Karima Benamrane (URAER) Tarak Benslimane (University Mohamed Boudiaf Msila)	Particle Swarm Optimization of PI Controllers in Grid-Connected PV Conversion Cascade Based Three Levels NPC Inverter
39	Ihor Bovdvi (State Institution «Institute of Technical Problems of Magnetism of the National Academy of Sciences of Ukraine»)	Modeling and Active Shielding of Magnetic Field with Different Space-Time Characteristic

	Borys Kuznetsov (State Institution «Institute of Technical Problems of Magnetism of the National Academy of Sciences of Ukraine») Tatyana Nikitina (Kharkiv National Automobile and Highway University)	
43	Oleksandr Plakhtii (Ukrainian State University of Railway Transport) Artem Mashura (NTU “KhPI”)	Energy Efficiency Analysis of Electric Vehicles Charging Station With Active Rectifier
44	Amine Bendarma (Universiapolis)	Experimental analysis of the aluminum alloy sheet subjected to impact and perforation process
45	Marina Rezinkina (NTU “KhPI”) Oleg Rezinkin (NTU “KhPI”) Serhiy Buryakovskiy (NTU “KhPI”)	Physical and Mathematical Modelling of Electrophysical Processes for Solution of Electromagnetic Compatibility Problems
50	Hamid Bentarzi (UMBB University) Abderrahmane Ouadi (UMBB University) Abdelkader Zitouni (UMBB University) Meriem Mahboubi (UMBB University)	Real-Time Platform for Development of Synchro-Phasor Measurement Unit
59	Dmitry Danilchenko (NTU “KhPI”) Oleksandr Miroshnyk (Petro Vasilenko KHNTUSG) Olena Rubanenko (University of West Bohemia) Vitalii Yanovych (University of West Bohemia)	Hydroelectric Power Generation for Compensation Instability of Non-guaranteed Power Plants
61	Volodymyr Novskiy (Institute of Electrodynamics of the National Academy of Sciences of Ukraine) Denys Malakhotka (Institute of Electrodynamics of the National Academy of Sciences of Ukraine)	Means of Electromagnetic Compatibility Providing In Local Electricity Networks Under Distributed Generation Development
62	Yevhen Borysenko (NTU “KhPI”) Boris Gorkunov (NTU “KhPI”)	Development of multiparameter

	Sergii Lvov (NTU “KhPI”) Tamer Shaiban (NTU “KhPI”) Issam Chahine (NTU “KhPI”)	electromagnetic diagnostics of power equipment
71	Volodymyr Zamaruiev (NTU “KhPI”)	Using Cooperative Converters in Active Power Line Conditioners
72	Oleg Shutenko (NTU “KhPI”) Oleksii Kulyk (NTU “KhPI”)	Recognition of Overheating with Temperatures of 150-300°C by Analysis of Dissolved Gases in Oil
77	Oleg Shutenko (NTU “KhPI”) Serhii Ponomarenko (NTU “KhPI”)	Reliability Assessment of the Results of Periodic Monitoring of the Transformer Oils Condition
83	Dmitry Danilchenko (NTU “KhPI”) Sergey Shevchenko (NTU “KhPI”) Stanislav Dryvetskyi (NTU “KhPI”)	Experimental research of the electrical strength of the insulated system “Protected wire - Line insulator”
87	Noujoud Nader (Lebanse University) Mohamad Alwan (Lebanse University) Nader Saadeyu (Lebanse University) Mahmoud Abbas (Lebanse University)	A New Algorithm For Electricity Consumption Disaggregation
93	Ivan Stasiuk (NTU “KhPI”) Igor Khomenko (NTU “KhPI”)	Theoretical and practical studies of electrical systems operation modes at reactive power compensation
96	Dmitry Danilchenko (NTU “KhPI”) Sergey Shevchenko (NTU “KhPI”) Igor Borzenkov (Sumy State University) Igor Lebedinskiy (Sumy State University) Tetiana Zahorodnia (Sumy State University)	Study of leakage current of suspended glass insulator type PSD-70 E
101	Dmitry Tugay (O.M. Beketov National University of Urban Economy in Kharkiv)	Localization of the Phase Voltage Measurement

	<p>George Zhemerov (NTU “KhPI”) Serhii Korneliuk (O.M. Beketov NUUE Kharkiv) Valentyn Akymov (O.M. Beketov NUUE Kharkiv)</p>	Location for Active Power Filter Controlling
107	<p>Viktor Shevchenko (Chernihiv National University of Technology) Oleksandr Husev (ChNTU, TalTech) Bohdan Pakhaliuk (Chernihiv National University of Technology, Gdansk University of Technology) Alexander Veligorsky (Chernigiv National Technological University, Ukraine) Ryszard Strzelecki (Gdansk University of Technology)</p>	Losses Model of the WPT System with Single-Phase T-Type Inverter
109	<p>Volodymyr Yaskiv (Ternopil Ivan Puluj National Technical University) Oleg Yurchenko (Institute of Electrodynamics of NAS of Ukraine) Anatoliy Martseniuk (Ternopil Ivan Puluj National Technical University) Anna Yaskiv (Ternopil Ivan Puluj National Technical University)</p>	Synchronous rectifier in high-frequency 24V/15A MagAmp power converter
113	<p>Denys Zinchenko (Tallinn University of Technology) Andrei Blinov (Tallinn University of Technology) Dmitri Vinnikov (TalTech) Andres Ormisson (MS Balti Trafo OÜ)</p>	Design of High Frequency Transformer for Isolated Bridge-Type PFC Converter
117	<p>Volodymyr Zamaruiev (NTU “KhPI”) Vadym Makarov (NTU “KhPI”) Bohdan Styslo (NTU “KhPI”)</p>	Power Factor and Harmonic Distortion Determination for DC Power Lines

SECTION 2. RENEWABLE ENERGY SYSTEMS AND DISTRIBUTED GENERATION

# CMT	Authors	Paper Title
3	Roman Zaitsev (NTU “KhPI”) Mykhaylo Kyrychenko (NTU “KhPI”) Lilia Zaitseva (NTU “KhPI”) Sergii Radoguz (NTU “KhPI”)	Automation Measurement System of Semiconductor Devices Parameters
5	Rachid Dabou (URER-MS) Sahouane Nordine (URER-MS) Abderrezzaq Ziane (URER-MS CDER) Ammar Neçaibia (URER-MS) Ahmed Bouraiou (URER-MS Adrar and ENP Oran) Mohamed Blal (URER-MS) Khelifi Seyf allah (URER-MS) Abdelkrim Abdelkrim (URER-MS)	A developed monitoring system for the grid tied PV station
9	Benmedjahed Miloud (URERMS) Rachid Maouedj (URER-MS) Samir Mouhadjer (URER-MS) Abdeldjalil Dahbi (URER-MS) Djamel Saba (URER-MS) Tahar Touahri (URER-MS)	An Investigation of Wind Resources in the Adrar Region (Southern Algeria)
12	Abderrezzaq Ziane (URER-MS CDER) Rachid Dabou (URER-MS) Sahouane Nordine (URER-MS) Ammar Neçaibia (URER-MS) Mohammed Mostefaoui (URER-MS) Ahmed Bouraiou (URER-MS Adrar and ENP Oran) Abdeljalil Slimani (URER-MS) Abdelkrim Abdelkrim (URER-MS) Khelifi Seyf Allah (URER-MS) Mohamed Blal (URER-MS)	Detecting partial shading in grid connected PV station using random forest classifier

18	Roman Zaitsev (NTU “KhPI”) Dmitriy Kudii (NTU “KhPI”) Andrey Meriuts (NTU “KhPI”) Alina Khrypunova (NTU “KhPI”) Tatjana Shelest (NTU “KhPI”) Viktorii Varvianska (NTU “KhPI”)	Theoretical Analysis of Optical Properties of CdS/CdTe Film Heterosystems
19	Noubeil Guermat (University of M’sila)	Study of the physical properties of ZnO layers deposited by pneumatic spray for photovoltaic applications
32	Yuriy Sayenko (Pryazovskyi State Technical University) Tetiana Baranenko (Pryazovskyi State Technical University) Vadym Liubartsev (Pryazovskyi State Technical University)	Forecasting of Electricity Generation by Solar Panels Using Neural Networks with Incomplete Initial Data
33	Nadzirah Mohd Mokhtar (Universiti Malaysia Pahang) Nur Syuhadah Abu (Universiti Malaysia Pahang) Farah Najihah Zainuddin (Universiti Malaysia Pahang) Lee Kar Yi (Universiti Malaysia Pahang) Mohd Amirul Hilmi Mohd Hanoin (Universiti Malaysia Pahang) Nor Amirah Safiah Muhamad (Universiti Malaysia Pahang) Amir Abdul Razak (Universiti Malaysia Pahang) Muhamad Sukri Hadi (Universiti Teknologi MARA)	Smart Temperature Monitoring System for Parabolic Solar Thermal Collector Integrated with Membrane Distillation System
36	Roman Zaitsev (NTU “KhPI”) Mykhaylo Kyrychenko (NTU “KhPI”) Drozdov Anton (NTU “KhPI”) Gennadiy Khrypunov (NTU “KhPI”) Kseniia Minakova (NTU “KhPI”) Valentyna Martseniuk (NTU “KhPI”) Anna Drozdova (NTU “KhPI”)	Control and Power Supply Device for Nanosecond EMP Generator

47	Vadym Starikov (NTU “KhPI”)	Light-absorbing inorganic coatings for solar and optoelectronic elements
49	Khelifi Seyf Allah (URERMS) Ammar Neçaibia (URERMS Adrar) Rachid Dabou (URERMS) Mohamed Blal (URERMS) Abdelkrim Abdelkrim (URERMS) Abderrezzaq Ziane (URER-MS CDER) Ahmed Bouraiou (URERMS Adrar and ENP Oran) Mohammed Mostefaoui (URERMS) Boudaoud Lahouaria (Université Ahmed Draia Adrar) Nordine Sahouane (URER-MS CDER) Abdeljalil Slimani (URERMS) Boudjema Tidjar (URERMS)	Analysis and assessment of grid connected photovoltaic plant performance in a desert climate of southern Algeria
51	Hamid Bentarzi (UMBB University) Hadjira Beljadi (IGEE/ Univ. of Boumerdes) Zakaria Rabiai (UMBB University)	Decentralized Energy Management System Enhancement for Power Grid Including PV Source
65	Mohammadrerza Aghakashkooli (Northumbria University) Milutin Jovanovic (Northumbria University Newcastle)	A MRAS Encoder-less Controller for Brushless Doubly-Fed Reluctance Wind Generators
67	Loubna Mentar (University Setif1) Bouderbala Ibrahim Yaacoub (Université Ferhat Abbas)	Fabrication of p-Cu ₂ O/n-Cu ₂ O:Cl homojunctions by controlling n-Cu ₂ O thickness for solar cells applications
68	Amor Azizi (Université Ferhat Abbas)	Effect of lattice matching substrate approach on the performance of p-Cu ₂ O/n-ZnO solar cells
73	Milad Kabirifar (Sharif University of Technology (SUT))	Multistage Active Distribution Network Integrated Planning Incorporating Energy Storage

	<p>Mahmud Fotuhi-Firuzabad (Sharif University)</p> <p>Moein Moeini-Aghtaie (Sharif University of Technology (SUT))</p> <p>Niloofar Pourghaderi (Sharif University of Technology (SUT))</p>	Systems and Active Network Management
80	<p>Niloofar Pourghaderi (Sharif University of Technology (SUT))</p> <p>Mahmud Fotuhi-Firuzabad (Sharif University)</p> <p>Moein Moeini-Aghtaie (Sharif University of Technology (SUT))</p> <p>Milad Kabirifar (Sharif University of Technology (SUT))</p>	Energy and Flexibility Scheduling of DERs under TVPP's Supervision using Market-Based Framework
82	<p>Ben Lazreg Meriem (National Engineering school of Sousse, LATIS laboratory)</p> <p>Baccouche Ines (National Engineering school of Sousse, LATIS laboratory)</p> <p>Jemmali Sabeur (National Engineering school of Sousse, LATIS laboratory)</p> <p>Manai Bilal (Department of Electrical Engineering, CEGEP de l'Outaouais)</p> <p>Hamouda Mahmoud (SAGE-LAB)</p>	Lithium-ion battery pack modeling using accurate OCV model: Application for SoC and SoH estimation
84	<p>Ramtin Sadeghi (Isfahan (Khorasgan) Branch, Islamic Azad University)</p> <p>Mohammadrerza Aghakashkooli (Northumbria University)</p>	Integral Sliding Mode Based Direct Power Control of Brushless Doubly Fed Induction Wind Generators
90	<p>Loubna Bouselamti (EMI)</p> <p>Wafaa Ahouar (EMI)</p> <p>Mohamed Cherkaoui (EMI Rabat)</p>	Mono-objective optimization of PV-CSP system using PSO algorithm
91	<p>Oksana Dovgalyuk (NTU "KhPI")</p> <p>Roman Bondarenko (NTU "KhPI")</p> <p>Ivan Yakovenko (NTU "KhPI")</p> <p>Eugene Dyakov (Kharkiv National University of Municipal Economy named after O.M. Beketov)</p>	Efficiency Increase of Autonomous Lighting Complexes Operation for Ukraine Highways

	Tatyana Syromyatnikova (Kharkiv National University of Municipal Economy named after O.M. Beketov)	
92	Oksana Dovgalyuk (NTU “KhPI”) Roman Bondarenko (NTU “KhPI”) Ivan Yakovenko (NTU “KhPI”) Eugene Dyakov (Kharkiv National University of Municipal Economy named after O.M. Beketov) Tatyana Syromyatnikova (Kharkiv National University of Municipal Economy named after O.M. Beketov)	Operation Modes Analysis of the Electric Networks with the Solar Power Plant
100	Okba Belahssen (University of Biskra) Mebrouk S Ghougali (University of Biskra) Abdallah Diha (University Sheik Larbi Tébessi)	Enhancement of physical properties of sprayed NiO:Cu thin films
108	Behnaz Alafi (Istanbul Technical University) Çetin Akinci (İstanbul Teknik Üniversitesi) Serhat Seker (Istanbul Technical University)	Performance of neuro wind speed forecasting based on measurement data in Istanbul
110	Muhammad Ahad Rahman Miah (University of Asia Pacific) Runa Kabir (European University of Bangladesh) Shaikh Rashedur Rahman (University of Asia Pacific)	Techno-Economic Analysis of Floating Solar PV Integrating with Hydropower Plant in Bangladesh
112	Fatima Ez.Zahra Lamzouri (REIPT Laboratory Moulay Ismail University of Meknes) El-Mahjoub Boufounas (REIPT Laboratory Moulay Ismail University of Meknes) Aumeur El Amrani (REIPT Laboratory Moulay Ismail University of Meknes)	Power Control of a Stand-Alone Hybrid Energy System using SMC Controller with Integral Action

116	<p>Valeriy Kuznetsov (Railway Research Institute) Victor Sychenko (Dnipro National University of Railway Transport named after Academician V. Lazaryan) Sergey Myamlin (Branch “SEI” of JSC “UKRZALIZNYTSIA” “UKRAINIAN RAILWAY”) Petro Hubskeyi (Railway Research Institute) Yevhen Kosariev (Dnipro National University of Railway Transport named after Academician V. Lazaryan) Vitalij Liashuk (Dnipro National University of Railway Transport named after Academician V. Lazaryan)</p>	Hybrid railway traction power supply system
119	<p>Kseniya Rezvaya (NTU “KhPI”) Vadym Makarov (NTU “KhPI”) Mykhaylo Cherkashenko (NTU “KhPI”) Iryna Tynyanova (NTU “KhPI”)</p>	Using mathematical modeling for determination the optimal geometric parameters of a pump-turbine water passage

SECTION 3. INTELLIGENT AND ADAPTIVE SYSTEMS IN SMART GRID

# CMT	Authors	Paper Title
30	<p>Mohammad Mostafa Keramat (Tavanir); Mohammad Hosein Fazaeli (Tavanir) Hashem Alipour (Tavanir)</p>	The adaptive protection scheme for the compensated transmission lines with the series capacitor using PMU data
55	<p>Resul Azizi (Istanbul Technical University) Serhat Seker (Istanbul Technical University)</p>	Wavelet Transform Based Ensemble Learning for Microgrid Protection

97	Alexander Zakovorotiy (NTU “KhPI”) Magomediemin Gasanov (NTU “KhPI”) Gennadiy Khrypunov (NTU “KhPI”) Valerii Dmitrienko (NTU “KhPI”) Sergii Leonov (NTU “KhPI”) Oleksandr Klochko (NTU “KhPI”)	Intellectual methods of comparing power generating objects
98	Zahir Mohamed Edrees (Karabuk University)	An Overview of Blockchain Technology in Government Sectors Use Cases, Benefits and Challenges
103	Tanveer Ahmad (University of Macau) Hongcai Zhang (University of Macau) Md Shohrab Hossain (University of Macau) Dongdong Zhang (Xi’an Jiaotong University)	Deep Learning for Time-Series Combined Renewable and Conventional Energy Generation Forecasting

SECTION 4. INDUSTRIAL ELECTRONICS AND ELECTRICAL DRIVES

# CMT	Authors	Paper Title
6	Wissam Dehina (Université Mohamed Khider Biskra)	Diagnosis and Detection of Rotor Bars Fault in Induction Motor Using DWT and Hilbert Transform
22	Volodymyr Havryliuk (Dnipro National University of Railway Transport named after Academician V. Lazaryan)	Detecting of Signal Distortions in Cab Signalling System Using ANFIS and WPESE

38	<p>Muhamad Sukri Hadi (Universiti Teknologi MARA) Nadzirah Mohd Mokhtar (Universiti Malaysia Pahang) Intan Zaurah Mat Darus (Universiti Teknologi Malaysia)</p>	Optimal Placement of Actuator for Vibration Suppression Based on Intelligent PID Controller
40	<p>Borys Kuznetsov (State Institution «Institute of Technical Problems of Magnetism of the National Academy of Sciences of Ukraine») Tatyana Nikitina (Kharkiv National Automobile and Highway University) Ihor Bovdvi (State Institution «Institute of Technical Problems of Magnetism of the National Academy of Sciences of Ukraine») Valerij Kolomiets (Educational scientific professional pedagogical Institute Ukrainian Engineering Pedagogical Academy) Borys Kobylianskyi (Educational scientific professional pedagogical Institute Ukrainian Engineering Pedagogical Academy)</p>	Multi-Motor Plant Related Electric Drives Robust Control Synthesis
41	<p>Ali Akay (University of Leicester) Paul Lefley (University of Leicester) Mohan Kansara (University of Leicester)</p>	Open-Circuit Fault-Tolerant Control of Five-Phase PM Machine Based On Current Space Vectors
42	<p>Borys Kuznetsov (State Institution «Institute of Technical Problems of Magnetism of the National Academy of Sciences of Ukraine») Ihor Bovdvi (State Institution «Institute of Technical Problems of Magnetism of the National Academy of Sciences of Ukraine») Tatyana Nikitina (Kharkiv National Automobile and Highway University)</p>	Two Degree of Freedom Nonlinear Robust Control of Electromechanical Servo Systems for Improved Accuracy

	<p>Borys Kobylanskyi (Educational scientific professional pedagogical Institute Ukrainian Engineering Pedagogical Academy)</p> <p>Valerij Kolomiets (Educational scientific professional pedagogical Institute Ukrainian Engineering Pedagogical Academy)</p>	
52	<p>Amrane Ahmed (National School of Technology, Larabi Abdelkader (USTHB))</p>	Improved detection and isolation of faulty speed sensor applied to induction machines based on estimator redundancy
58	<p>Serhiy Buryakovskiy (NTU “KhPI”)</p> <p>Artem Maslii (Ukrainian State University of Railway Transport)</p> <p>Danylo Pomazan (Ukrainian State University of Railway Transport)</p> <p>Andrii Maslii (LTD «Ukrtranssignal»)</p> <p>Vasyl Smirnov (PJSC «ELAKS»)</p> <p>Oleksandr Rafalskyi (PJSC «ELAKS»)</p>	Investigation of power switched reluctance drive as a traction one for shunting locomotives
60	<p>Anna Tyshchenko (NTU “KhPI”)</p>	Method and Device for Sorting Thin-Walled Sheets of the Same Steel Grade
70	<p>Hamid Bentarzi (UMBB University, Boumerdes)</p> <p>Abderrahmane Ouadi (UMBB of Boumerdes); Abdelkader Zitouni (UMBB of Boumerdes)</p>	Spiral Search Algorithm for the Design of Optimal Adaptive IIR Digital Filters
75	<p>Vladyslav Pliuhin (O.M. Beketov National University of Urban Economy in Kharkiv)</p> <p>Maria Sukhonos (O.M. Beketov National University of Urban Economy in Kharkiv)</p> <p>Ihor Bileckiy (O.M. Beketov National University of Urban Economy in Kharkiv)</p>	Object Oriented Mathematical Modeling of Electrical Machines

104	Olha Kholod (NTU “KhPI”) Denis Krylov (NTU “KhPI”) Serhii Radohuz (NTU “KhPI”)	Active rectifier with different control system types
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SECTION 5. SPECIAL POWER ELECTRONICS **SYSTEMS AND APPLICATIONS**

# CMT	Authors	Paper Title
25	Tatyana Bernadskaya (NTU “KhPI”)	Improving the accuracy of measuring the morphology of red blood cells
53	Roman Zaitsev (NTU “KhPI”) Anton Drozdov (NTU “KhPI”) Gennadiy Khrypunov (NTU “KhPI”) Viktor Nikitin (NTU “KhPI”) Andrey Meriuts (NTU “KhPI”) Maksim Khrypunov (NTU “KhPI”) Mykhaylo Kyrychenko (NTU “KhPI”)	Switching Effects from a High-Resistance State to a High Electrical Conductivity State in Mo/P-Cdte/Mo Structure
69	Kostyantyn Kolisnyk (NTU “KhPI”)	Using Medical Imaging in Disaster Medicine
81	Roman Zaitsev (NTU “KhPI”) V. Dubonosov (NTU “KhPI”) Lidiya Krichkovskaya (NTU “KhPI”) D. Demyanenko (NTU “KhPI”) Gennadiy Khrypunov (NTU “KhPI”) Olga Vodorez (NTU “KhPI”)	Prospectives for Applying of Nanocoatings on Instrumental Tools
85	Gennadiy Pavlov (Admiral Makarov National University of Shipbuilding) Mikhail Pokrovskiy (Admiral Makarov National University of Shipbuilding) Iryna Vinnychenko (Admiral Makarov National University of Shipbuilding)	Energy parameters of the serial-to-serial resonant converter with pulse-number control for wireless power transfer

	Dmytro Vinnychenko (Institute of Pulse Processes and Technologies NAS of Ukraine) Irina Zhuk (Petro Mohyla Black Sea National University)	
94	Mykhailo Shyshkin (NTU “KhPI”) Yevgen Sokol (NTU “KhPI”) Olha Butova (NTU “KhPI”) Olena Akhiiizer (NTU “KhPI”) Olha Dunaievskia (NTU “KhPI”)	Speed Spot as a method of graphical visualization and analysis of the state of the heart activity
95	Mykhailo Shyshkin (NTU “KhPI”) Pavel Shapov (NTU “KhPI”) Sokol Yevgen (NTU “KhPI”) Daniel Shami (NTU “KhPI”)	Probabilistic modeling of the dynamics of the electrical activity of the heart
105	Dmytro Samoilenko (Politechnika Warszawska, Instytut Pojazdów)	Influence of High Velocity Flow on Self-Stabilized Spark Discharge at High-Energy Ignition System
106	Volodymyr Ivakhno (NTU “KhPI”) Bohdan Styslo (NTU “KhPI”) Volodymyr Zamaruiev (NTU “KhPI”) Dmitri Vanikov (TUT) Roman Kosenko (TUT) Andrei Blinov (TUT)	Wide ZVS Range Full-Bridge DC-DC Converter with Quasi-Resonant Switching
111	Kostyantyn Korytchenko (NTU “KhPI”) Roman Tomashevskiy (NTU “KhPI”) Iryna Varshamova (NTU “KhPI”) Igor Hrytsyna (National University of Civil Protection of Ukraine) Marina Chyrkina (National University of Civil Protection of Ukraine) Ihor Poliakov (NTU “KhPI”)	Investigation of Voltage Drop across Reactance of Expanding Spark Channel