



# **SIELMEN 2019**

## **PROGRAM**

### **OF THE 12<sup>th</sup> INTERNATIONAL CONFERENCE ON ELECTROMECHANICAL AND ENERGY SYSTEMS**

#### **Organized by**

**FACULTY OF ELECTRICAL ENGINEERING OF CRAIOVA - ROMANIA**

**FACULTY OF ELECTRICAL ENGINEERING OF IASI – ROMANIA**

**FACULTY OF POWER AND ELECTRICAL ENGINEERING CHIȘINĂU -  
MOLDOVA**

#### **Partners**

**IEEE ROMANIA SECTION, CHAPTERS CONTROL SYSTEMS, POWER ELECTRONIC**

**MINISTERUL CERCETARII SI INOVARII - ROMANIA**

**AGENȚIA NAȚIONALĂ PENTRU DEZVOLTARE ȘI CERCETARE – Rep.Moldova**

**ASOCIAȚIA CONSUMATORILOR DE ENERGIE DIN MOLDOVA**

**October 9, Craiova, Romania**

**October 10 – 11, Chișinău, Republic of Moldova**

# CONFERENCE AGENDA

<b>Wednesday, October 9</b> University of Craiova, Faculty of Electrical Engineering Council Hall,107 Decebal Blv	
<b>10h00-12h30</b>	<b>Workshop</b> <i>New trends in electromechanical systems</i>
<b>Thursday, October 10</b> Chişinău – Republic of Molodova	
<b>12h00-14h00</b>	<b>Registration of participants and distribution of conference materials</b> Tekwill Center, no.9/11 Studentilor, Chisinau, Rep.of Moldova
<b>14h00-15h00</b>	<b>Opening Ceremony of Conference</b> Tekwill, Imaginarium Hall
<b>15h00-16h30</b>	<b>Plenary session - Keynote Speeches</b> Tekwill, Imaginarium Hall
<b>16h30-17:00</b>	<b>Coffee break</b>
<b>17h00-18h30</b>	<b>Posters Session</b> Tekwill, FabLab UTM
<b>19:00</b>	<b>Festive dinner</b> Restaurant Banquet Premium 11/1 Bul. Moscovei, Chisinau

**Friday, October 11**  
**Chişinău, Technical University of Moldova**  
*Faculty of Power and Electrical Engineering*  
 No.78, 31 August str.  
**Oral Sessions**

<b>Time</b>	<b>Sections</b>	<b>Room</b>
<b>9h00-10h45</b>	<b>Industry Applications</b>	<b>2-218</b>
	<b>Electrical Apparatus</b>	<b>2-126</b>
	<b>Electrical machines</b>	<b>2-117</b>
	<b>Power Electronics and Drives &amp; Electric Traction and Automotive Equipments</b>	<b>2-236</b>
	<b>Energy Efficiency and Renewable Resources-1</b>	<b>2-222</b>
	<b>Metrology and Measurement Systems</b>	<b>2-137</b>
	<b>Tendences in Lighting Engineering</b>	<b>2-230</b>
<b>10h45-11h15</b>	<b>Coffee break</b>	
<b>11h15-13h00</b>	<b>Automation, Robotics and Mechatronics</b>	<b>2-218</b>
	<b>Electromagnetic Field and Electrical Circuits</b>	<b>2-126</b>
	<b>Energy Efficiency and Renewable Resources-2</b>	<b>2-222</b>
	<b>Engineering Education and Evocations &amp; Materials, Eco-design and Electro-ecology</b>	<b>2-137</b>
	<b>Power Generation, Transport and Distribution &amp; Management And Entrepreneurship</b>	<b>2-230</b>
<b>13h00-13h30</b>	<b>Farewell lunch</b>	
<b>13h30-14h00</b>	<b>Closing Session of the SIELMEN 2019 Conference</b>	
<b>14h00-15h45</b>	<b>Trip to the Chateau Vartely wine cellars, Orhei (optional)</b>	

**CRAIOVA, 9 October 2019, 10h00-12h30**

**Workshop: *New trends in electromechanical systems***

**Council Hall, Faculty of Electrical Engineering, 107 Decebal Blv, Craiova**

**Chairmen: Sorin ENACHE, Daniel CISMARU**

ID 133	<i>Modelling, Simulation and Monitoring of New Asynchronous Motor for EMU Train</i> - Monica-Adela Enache, Aurel Câmpeanu, Sorin Enache, Ion Vlad, Radu Zlatian, Raluca-Cristina Presură
ID 139	<i>Economic and Financial Analysis of Rehabilitation Solutions for an Education Institution</i> - Felicia - Elena Stan – Ivan, Radu- Cristian Dinu
ID 153	<i>Comparative Study Between Extended Gopinath Observer and EMF-MRAS Speed Observer Coupled with Gopinath Rotor Flux Observer for Sensorless Vector Control of Induction Motor Drives</i> - Olimpiu Stoicuță, Teodor Pană
ID 162	<i>Optimal Design of Asynchronous Motors used for Driving Coal Mills</i> - Monica-Adela Enache, Aurel Câmpeanu, Sorin Enache, Ion Vlad, Marian Popescu
ID 175	<i>Improvement of acting force of DC plunger–type electromagnet by six parameters optimization</i> - Alin-Iulian Dolan
ID 176	<i>Solution for Water Management Using a System Based on Microcontroller</i> - Constantin - Florin Ocoleanu, Adrian-Mihai Nechita
ID 190	<i>Calculating The Characteristics Of Multiple Cages Asynchronous Machine</i> - Gabriela Dana Petropol Șerb, Ion Petropol Șerb
ID 227	<i>Design, Simulations and Manufacturing of an Auxiliary Converter Used in Railway Applications</i> - Radu Florin Marinescu, Petre Marian Nicolae, Adrian Hurezeanu, Diana Cristina Marinescu

**CHISINAU, 10 October 2019**

**Tekwill center**, <https://www.tekwill.md/about>

no.9/11 Studentilor, Chisinau, Rep.of Moldova

**Plenary Session (15h00-16h30)**

**Tekwill, Imaginarium hall**

**Chairmen: Dorin LUCACHE, Ilie NUCĂ, Sergiu IVANOV**

<b>Plenary 1</b>	<i>Energy Transition – Advantages and Challenges for the Republic of Moldova (ID 161)</i>	Valentin Arion, Cristina Efremov
<b>Plenary 2</b>	<i>Study and Analysis of the Implementation of the Electrical Energy Storage in Urban Cities of the Russian Federation (ID 249)</i>	Rinat Nasyrov, Vladimir Tulsy, Maxim Burmeyster, Ramis Bulatov, Aleksandr Chegodaev, Raseel Aljendy
<b>Plenary 3</b>	<i>Tradition and perspectives in Electrical Engineering Research – ICMET, the single testing institute in South-Est of Europe</i>	Marian Duță, Marcel Nicola
<b>Plenary 4</b>	<i>On Human Exposure to the Nowadays Electromagnetic Environment</i>	Alexandru Sălceanu

**CHISINAU, 10 October 2019**  
**Tekwiil, FabLab hall**

**SESSION POSTERS - 1(17h00-18h30)**

**Chairmen:** Virginia IVANOV, Alexandru TARLAJANU, Olga PLOPA

ID 111	<i>A Modern Solution for Test Stand Control Gas Turbine – Filip Niculescu, Mirela Letiția Vasile</i>
ID 112	<i>Blended Teaching and Learning Solutions for Electrical Engineering Study Programs. Survey of a Project Proposal - Adrian Adăscăliței, Sebastian Teodor Arădoaiei</i>
ID 113	<i>A digital companion with FPGA - Mihaela Hnatiuc, Bogdan Hnatiuc</i>
ID 123	<i>Possibilities of Monitoring, Commands and Control of the Circuit Breakers- Marian-Bogdan Micu, Maricel Adam, Mihai Andrușca, Cosmin Nistor Deac</i>
ID127	<i>Aspects Regarding the Alternating Current Monitoring In Electrical Equipment Testing Installations - Cosmin-Nistor Deac, Maricel Adam, Alin Dragomir, Marian-Bogdan Micu</i>
ID 131	<i>Effects of the digital revolution on teaching and education - Daniela Popescu, Corina Dana Cernaianu, Radu Cristian Dinu</i>
ID 137	<i>Finding the Minimal Fitting Distance of a Lightning Rod Conductor - Elisabeta Spunei, Ion Piroi, Florina Piroi</i>
ID 140	<i>Comparative Simulation of the Dynamic Regimes of Resistive Heating Elements - Mitică Iustinian Neacă</i>
ID 142	<i>Phasing relevance on magnetic fields generated by overhead power lines -Bogdan Dumitru Alistar, Alexandru Salceanu, George Daniel Costin, Constantin Dan Neagu, Dragos Florin Bordeianu</i>
ID 144	<i>Upon the contribution of Image Currents on the magnetic Fields Generated by Overhead Power Lines - Alexandru Salceanu, Marius Paulet, Bogdan Dumitru Alistar, Oana Asimincesei</i>
ID 146	<i>Upon the influence of charge image on the electric field intensity - Alexandru Salceanu, Eduard Lunca, Bogdan Dumitru Alistar, Silviu Ursache</i>
ID 148	<i>Load Profile Identification using Independent Component Analysis - Elena-Crenguța Bobric, Daniela Irimia</i>
ID 149	<i>Aspects Regarding the Protection Relays from Power Substations - Marian Atănăsoaei, Maricel Adam, Mihai Andrușca, Alin Dragomir, Cosmin Nistor Deac</i>
ID 174	<i>Study Upon Specific Absorption Rate Values for Different Generations of Mobile Phones by Using a SATIMO-COMOSAR Evaluation Dosimetry System - Ovidiu Bejenaru, Cătălin Lăzărescu, Alexandru Sălceanu, Valeriu David</i>
ID 177	<i>Mapping Between Automotive SPICE 3.1 and IATF 16949:2016 to Support the Process-Optimization in the Development of Autonomous Vehicles - Simona Gifei (Aionoae), Alexandru Sălceanu</i>

ID 179	<i>DC Digital Gaussmeter Based on Linear Hall-Effect Sensor IC</i> - Silviu Ursache, Eduard Lunca, Silviu Vornicu
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## SESSION POSTERS – 2 (17h00-18h30)

**Chairmen:** Cristian Gyozo HABA, Elisabeta SPUNEI, Viorica HLUSOV

ID 182	<i>The Simulation of the Positioning of a Lobot uHand STM 32 Structure</i> - Marian Ionescu, Florina Besnea, Ilie Borcosi, Gheorghe Gilca, S.I. Cismaru, Nicu George Bizdoacă
ID 184	<i>PC-Based Temperature and Humidity Recorder with USB Connectivity</i> - Eduard Lunca, Silviu Vornicu, Catalin Damian
ID 186	<i>Study of Electromagnetic Immunity of Motors used in Automotive Applications</i> - Marian Gliga, Calin Munteanu, Sergiu Andreica, Claudia Pacurar, Claudia Constantinescu, Adina Giurgiuman,
ID 199	<i>Optimal Voltage Control in Power Distribution Networks Using an Adaptive On-Load Tap Changer Transformers Techniques</i> - Bogdan Constantin Neagu, Gheorghe Grigoraş
ID 201	<i>Using Mono and Stereo Camera System for Static and Moving Objects Detection</i> - Catalin Damian, Daniel Grigorescu, Iulian Ghinda, Maria Robu
ID 203	<i>Using the Short Circuit Analysis in the Study of the Induction Machine Disconnection from the Grid</i> – Livia Cociu
ID 206	<i>Voltage Control in Microgrids in the Presence of Small-Scale Renewable Energy Source</i> - Bogdan Constantin Neagu, Mihai Gavrilăş, Gheorghe Grigoraş, Ovidiu Ivanov
ID 212	<i>A New PSpice Implementation of a Three-Phase Induction Machine Model</i> - Olga Plopa, Sebastian-Teodor Aradoaei, George-Andrei Ursan
ID 219	<i>Use of Electric circuits' Simulation Methods, as New Methods of Learning/Experimentation in an Electrical Laboratory</i> - George-Andrei Ursan, Maria Ursan, Olga Plopa
ID 231	<i>Modeling of Hybrid Systems with Petri Nets</i> - Mircea Adrian Drighiciu, Daniel Cristian Cismaru
ID 239	<i>Comparison of PWM Strategies for Three Level Inverters</i> - Sergiu Ivanov, Lucian Mandache, Virginia Ivanov, Alexandru Radu, Monica Roman, Razvan Prejbeanu
ID 246	<i>Qualitative and Quantitative Models Used For Faults Diagnosis of Power Converters</i> - Virginia Ivanov, Maria Brojboiu, Sergiu Ivanov
ID 247	<i>Environmental Pollution Control</i> - Mihail Sebastian Pascu, Romeo-Cristian Ciobanu, George-Andrei Ursan
ID 248	<i>Remote Data Acquisition and Monitoring for an Integrated air Pollutant Monitoring System</i> - Mihail Sebastian Pascu, Romeo-Cristian Ciobanu, George-Andrei Ursan, Ramona Simionescu

ID 252	<i>Vibration and Mechanical Shock Monitoring Using Flexible Piezoelectric Sensors</i> - Marius Pauleț, Olga Plopa, George-Andrei Ursan, Ileana Ursu
ID 255	<i>Installing PV Panels on a University Building: Comparison Between Two Different Climates</i> - Mohammed el Amine Boukli Hacene, Dorin Lucache
ID 272	<i>Optical Evaluation systems for anisotropic composite materials quality assessment</i> - George-Andrei Ursan, Olga Plopa, Cosmin Contofan, Mihaela Aradoaei, Maria Ursan

## ORAL SESSION

**CHISINAU, 11 October 2019**

**Faculty of Power and Electrical Engineering,**

**No.78, 31 August str. Chisinau**

**Technical University of Moldova, (Block 2)**

**ARM Automation, Robots and Mechatronics**

**Room 2-218** (11h15-13h00)

**Chairmen:** Irina COJUHARI, Marcel NICOLA

ID 167	<i>Sensorless Control for PMSM Using Model Reference Adaptive Control and back-EMF Sliding Mode Observer</i> - Marcel Nicola, Claudiu-Ionel Nicola
ID 168	<i>Sensorless Predictive Control for PMSM Using MRAS Observer</i> - Marcel Nicola, Claudiu-Ionel Nicola
ID 178	<i>Neural Network Based Traffic Sign Recognition for Autonomous Driving</i> - George-Zamfir Tiron, Marian-Silviu Poboroniuc
ID 195	<i>The Method for Synthesis the PI and PID Algorithms to the Model of Object with Inertia Second Order</i> - Bartolomeu Izvoreanu, Irina Cojuhari, Ion Fiodorov, Dumitru Moraru, Mihail Potlog
ID 223	<i>Fuzzy Sensor Network for Mobile Robots Navigation</i> - Victor Ababii, Viorica Sudacevschi, Victoria Alexei, Radu Melnic, Dimitrie Bordian, Ana Nistiriuc

## EA Electrical Apparatus

**Room 2-126** (9h00-10h45 & 11h15-13h00)

**Chairmen:** Nicolae MOGOREANU, Bogdan Hnatiuc,

ID 108	<i>Temperature monitoring system using an infrared temperature sensor connected to a PLC - Georgel Gabor, Georgian-Cosmin Pintilie, Adrian-Traian Plesca, Maricel Cardasim</i>
ID 114	<i>Switching transient regime of shunts release from a low voltage circuit breaker commanded by a PLC - Bogdan Hnatiuc, Marius Bortă, Mihaela Hnatiuc</i>
ID 115	<i>Analysis of sliding electromagnetic coupling parameters in a PLC automation system - Georgel Gabor, Adrian-Traian Plesca, Florin-Andrei Rusu, Costică Nițuca</i>
ID 122	<i>Methods for determining dielectric stresses in the windings of a transformer subjected to lightning impulse - Maria Cristina Nițu, Marcel Nicola, Marian Duță, Alin Mircea Benea</i>
ID 124	<i>Thermal Analysis of Hybrid Tankless Heating System - Georgian-Cosmin Pintilie, Adrian Traian Plesca, Dorin Dumitru Lucache</i>
ID 125	<i>New Materials for Heating Systems - Georgian-Cosmin Pintilie, Florin Rusu, Adrian Traian Plesca, Georgel Gabor</i>
ID 130	<i>Applications of voltage pulse generator to achieve current pulses of high amplitude- Ion Pătru, Marcel Nicola, Camelia Marinescu, Laurențiu Vlădoi, Maria Cristina Nițu</i>
ID 230	<i>New Solution for Cereals, Vegetables and Fruits Storage - Florinel Lupoiu, Adrian Plesca, Georgel Gabor</i>

## EM Electrical Machines

**Room 2-117** (9h00-10h45 & 11h15-13h00)

**Chairmen:** Tudor AMBROS, Alecsandru SIMION, Mihai IORDACHE

ID 103	<i>Investigation of a Magnetoresistive Angle Sensor Accuracy for BLAC Motor Control - Adrian Munteanu</i>
ID 118	<i>A study of an electric ATV by removing the termic motor - Florin Andrei Rusu, Gheorghe Livinț, Georgian Cosmin Pintilie</i>
ID 136	<i>An Implementation of the Image Processing Techniques for the Thermal Field Analysis of the Induction Machines - Adrian Dănilă</i>
ID 151	<i>Rotary Magnetostrictive Motor- Alexandru Dalea, Sorin Deleanu, Mircea Ignat, Mihai Iordache, Dragoș Niculae, Neculai Gălan</i>
ID 192	<i>Investigation of Idle Running and Short-Circuit Performance Improvement for an Asynchronous Traction Motor - Raluca Cristina Nicolae, Ion Vlad, Marian Ștefan Nicolae, Sorin Enache</i>
ID 202	<i>Outer Rotor PM Synchronous Generator for Household Wind Power Generation. Comparative study upon structural solution – Leonard</i>

	Livadaru, Bogdan Virlan, Adrian Munteanu, Alexandra Bobu, Ionuț Nacu , Alecsandru Simion
ID 204	<i>On the Electromagnetic Torque Expression of an Induction Machine Asymmetrical Supplied</i> – Livia Cociu, Voinea Radu Cociu
ID 266	<i>Phase shift elements used to start single phase induction motor-</i> Tudor Ambros, Marcel Burduniuc
ID 267	<i>Determination of the operating characteristics of the asynchronous motor in the basis of equivalent schema with mathcad application</i> - Leonid Iazlovetchi, Maria Iazlovetchi

## **PED Power Electronics and Drives ETAE Electrical Traction And Automotive Equipments**

**Room 2-236** (9h00-10h45 & 11h15-13h00)

**Chairmen: Valentin OLESCHUK, Federico BARRERO,**

ID 120	<i>Current-Feedback Control at Constant Sampling Frequency Applied in Rotor-Field-Oriented Induction Machine Drives</i> - Csaba Szabo, Eniko Szoke, Norbert Csaba Szekely, Vlad Zacharias
ID 135	<i>Multilevel Installation Based on Voltage Source Inverters Controlled by Synchronous Multi-Zone PWM</i> - Valentin Oleschuk, Vladimir Ermuratskii, Federico Barrero
ID 145	<i>Review of Methods and Techniques of Space-Vector PWM for Dual and Triple Inverters of PV Systems</i> - Valentin Oleschuk, Vladimir Ermuratskii
ID 169	<i>Power Factor Correction and Sensorless Control of PMSM Using FOC Strategy</i> - Claudiu-Ionel Nicola, Marcel Nicola, Sebastian Popescu, Marian Duță
ID 170	<i>Identification and Sensorless Control of PMSM Using FOC Strategy and Implementation in Embedded System</i> - Claudiu-Ionel Nicola, Marcel Nicola, Adrian Vintilaă, Dumitru Sacerdoțianu
ID 208	<i>Single Phase to Three Phase Converter</i> – Iurie Ermurachi, Vladimir Berzan, Sergiu Ivanov

ID 117	<i>On the Electromagnetic Field in the Surrounding Area of Railway Equipment and Installations</i> – Constantin Daniel Oancea, Florin Călin, Valentin Golea
ID 268	<i>Electrical buses: development and implementation in Chisinau municipality, Moldova-</i> Vitalie Esanu, Alexandr Motroi, Ilie Nucă, Iurie Nucă

## EFEC Electromagnetic Field and Electrical Circuits

**Room 2-126** (11h15-13h00)

**Chairmen:** Ion STRATAN, Camelia PETRESCU, Lucian MANDACHE

ID 121	<i>CSAP and TFSG – Circuit Symbolic Analysis Programs</i> – Diana SanatescuSorin Deleanu, Diana Sanatescu, Alexandra Ionescu, Atanasie Moscu, Lavinia Bobaru
ID 180	<i>Study of Cylindrical Dielectric-Conductor Open Waveguides</i> – Camelia Petrescu
ID 193	<i>Effect of Stochastic Electromagnetic Field on Particle Diffusion</i> – Iulian Petrișor
ID 229	<i>Parameter Identification for Two-Windings Power Transformers</i> - Ecaterina Murdid, Ion Stratan
ID 269	<i>Estimation the Possibility of Power Transfer of Self- Compensation Electrical Line with Incomplete Number of Phases</i> - Michail Kiorsak, Natalia Turturica
ID 251	<i>Capacitive C and RC sensorial test systems in LabVIEW graphic programming environment with NI USB-6210 acquisition board</i> - Olga Plopa, Marius Pauleț, George-Andrei Ursan, Laurențiu Ungureanu, Cristina Schreiner
ID 270	<i>Application of the Operational Method for Calculating the Mode of the Electrical Grid Circuit with Distributed Loads</i> -Dmitrii Vieru
ID 273	<i>Reliable time-domain analysis of nonlinear lumped circuits with topology issues, suitable for transients of AC drives</i> -, Lucian Mandache, Segiu Ivanov, Razvan Prejbeanu, Monica Roman, Ioana-Gabriela Sirbu, Virginia Ivanov, Alexandru Radu

## IA Industry Applications

**Room 2-218** (9h00-10h45)

**Chairmen:** Radu BURLICA, Gheorghe MANOLEA

ID 128	<i>Real-time Power Supply Service Monitoring in Industrial Electric Power Distribution Grid</i> - Ilie Vlasa, Adrian Gligor, Cristian-DraGoș Dumitru, Cătălin-Eugen Moldovan
ID 138	<i>Fuzzy Controller vs. Classical Methods for Determining the Degree of Polymerization</i> -Maria Cristina Nițu, Ancuța-Mihaela Aciu, Claudiu-Ionel Nicola, Marcel Nicola
ID 155	<i>Integrated remote reading solution of smart metering devices</i> - Ilie Vlasa, Adrian Gligor, Cristian-DraGoș Dumitru, Alexandru Marius Turc
ID 156	<i>Optimizing the structure of the rocket launcher monitoring system</i> – Gheorghe Manolea, Ionel Laurențiu Alboteanu, Alexandru Novac, Constantin Șulea-Iorgulescu, Sorin Stepan
ID 245	<i>Automation of Wastewater Treatment Plant</i> – Moldovan Artiom, Nucă Ilie

ID 263	<i>Voltage Polarity Influence on NTP Energy Efficiency of Point-to-Point Reactor-</i> Dragos Astanei, Daniel Crețu, Radu Burlica, Iuliana-Delicia Dirlau, Oana Beniuga, Stephane Pellerin, Maxime Wartel
ID 264	<i>Capacitive Power Supply for Double Spark Plug Ignition System-</i> Dragos Astanei, Radu Burlica, Daniel Crețu, Iuliana-Delicia Dirlau, Gheorghe-Gabriel Urma, Bogdan Hnatiuc

## EEE Engineering Education and Evocations MEE Materials, Eco-design and Electro-ecology

**Room 2-137 (11h15 -13h30)**

**Chairmen: Petru TODOS, Bogdan Alexandru RĂDULESCU**

ID 154	<i>Wireless control of a PMDC Motor</i> – Laura-Mihaela Lelutiu, Elena Vântoiu
ID 159	<i>Strategic and Operational Management in Energy Education, New Opportunity for Small Developers</i> – Bogdan Alexandru Rădulescu, Victorița Rădulescu
ID 253	<i>Development of electrotechnical industry, research and education in the Republic of Moldova</i> – Todos Petru, Ilie Nucă, Iurie Nucă

ID 129	<i>Cold plasma treatment influence on aqueous solution related to the electrical parameters of the power supply</i> - Cristian Victor Lungu, Bogdan Hnatiuc
ID 188	<i>Experimental Study of Some Composite Materials Characteristics</i> - Mircea-Emilian Ardeleanu, Aurelia Scornea, Dan-Gabriel Stănescu, Ilie Mihalcea, Valentin Adam
ID 207	<i>Experimental Determinations Regarding the Efficiency under Electromagnetic Shielding of Certain Construction Materials-</i> Violeta Voicu, Mircea-Emilian Ardeleanu, Paul Nicoleanu, Florel Raicu

## MMS Metrology And Measurement Systems

**Room 2-137 (9h00-11h00)**

**Chairmen: Andrei CHICIUC, Alexandru SALCEANU**

ID 173	<i>Applying Blockchain Technologies in Funding of Electrical Engineering Industry Applications-</i> Cătălin Damian, Ioan Lazăr, Daniel-George Visoiu, Ștefan Romanescu, Lenuța Alboaic
ID 181	<i>ANSYS Maxwell Finite Element Model for 2D Computation of the Magnetic Field Generated by Overhead High-Voltage Power Lines</i> - Silviu Vornicu, Eduard Lunca, Alexandru Sălceanu

ID 183	<i>Simulation and Measurement of the Radiofrequency Electromagnetic Field Generated by a LTE Base Station - Ovidiu Bejenaru, Eduard Lunca , Valeriu David</i>
ID 187	<i>Angle Transducer Based on Matteucci Effect - Cristian Fosalau, Cristian Zet</i>
ID 189	<i>Storing Custom Data Sets in a Blockchain System - Cătălin Damian, Maria Robu, Andrei Panu, Eduard Lunca</i>
ID 194	<i>Study on the possibility of implementing a system for monitoring emotions - Mihai Cenușă, Mihaela Poienar, Mariana Milici</i>
ID 218	<i>Computational Aspects Concerned with the Optimized Use of Wavelet Package Trees - Lucian Cristian Scărlătescu, Ileana Diana Nicolae, Marian Ștefan Nicolae, Petre Marian Nicolae, Dorina Mioara Purcaru</i>
ID 262	<i>Generating programmable analog signals using FPGA- Cristian Zet, Cristian Fosalau</i>

## **EERR Energy Efficiency and Renewable Resources**

**Room 2-222 (9h00-11h00)**

**Chairmen:** Ion BOSTAN, Valentin ARION, Victorița RĂDULESCU

ID 107	<i>Identifying the opportunity to meet the Republic of Moldova Electricity Demand by Combining Renewable Energy Sources and Energy Storage Systems - Ion Comendant, Iulia Prepelită, Lilia Turcuman</i>
ID 110	<i>The Photovoltaic Greenhouses – A Challenge for Republic of Moldova - Ion Bostan, Aurel Guțu, Corina Guțu-Chetrușca</i>
ID 116	<i>Photovoltaic Technical Potential in Republic of Moldova - Dumitru Braga</i>
ID 119	<i>Production Function of Energy Sector Republic of Moldova - Mikhail Gritsai, Mikhail Grodetskii, Vitali Postolati</i>
ID 134	<i>The load duration curve surface sharing between the possible energy sources -Valentin Arion, Călin Negură, Constantin Borosan</i>
ID 152	<i>Grid storage in LV networks – An appropriate solution to avoid network limitations in high RES scenarios- Mihai Sănduleac, Mihaela Albu, Dorel Stănescu, Carmen Stănescu</i>
ID 157	<i>Influence of the Atmospheric Parameters and the Induced Perturbations by Masts in Wind Farms - Victorița Rădulescu</i>
ID 158	<i>Numerical Modeling of Unsteady Air Flow with Vortices on Wind Turbine Blades - Victorița Rădulescu</i>
ID 163	<i>The load management concept applied on the residential sector - Cosmin Tiganasu, Ciprian Nemes, Florin Munteanu, Daniel Muneanu, Cezar Scinteie</i>

**Room 2-222** (11h15-13h00)

**Chairmen:** Ion SOBOR, Corneliu MARINESCU

ID 165	<i>The Present State of the e-RES Sector in Moldova Republic</i> - Ion Sobor, Octavian Mangos, Stella Tăriță
ID 171	<i>Power output experimental evaluation of fixed photovoltaic systems when using adjustable tilt angles</i> -Dragoș Machidon, Roxana Oprea, Marcel Istrate
ID 191	<i>Considerations about designing an optimal DC diagram for Renewable Energy Systems</i> - Mihai-Dumitru Valcan, Corneliu Marinescu
ID 196	<i>Distributed Generation Modeling in Matlab-Simulink</i> - Dumitru Cernusca, Radu-Dumitru Pentiu, Eugen Hopulele, Laurentiu Dan Milici
ID 209	<i>Particularities of the Energy Storage Processes in the Functional Components of the Power Systems</i> - Vladimir Berzan, Vladimir Patsyuk, Galina Rybacova, Iurie Ermurachi
ID 224	<i>Impact of Weather Forecasts and Green Building on Micro Grid Energy Management System</i> - Ihsan Mizher Baht, Petre-Marian Nicolae, Marian-Stefan Nicolae
ID 225	<i>Analysis of the Aspects of Increasing the Efficiency of Electricity Generation by Photovoltaic Power Plants</i> , Oleg Chalbash
ID 226	<i>Flexible Polynomial Mathematical Model of a Photovoltaic Power Plant</i> - Oleg Chalbash, Vladimir Berzan

## **PGTD Power Generation, Transport and Distribution ME Management And Entrepreneurship**

**Room 2-230** (11h15-13h00)

**Chairmen:** Vladimir BERZAN, Ciprian NEMES

ID 147	<i>Calculation and Investigation of Steady-State Asymmetric Modes of Three-Windings Three-Legs Power Transformer with Star/Star/Delta Connection</i> -Valeriu Bosneaga,Victor Suslov
ID 150	<i>Assessment of energy security of the region on the example of Pridnestrovye</i> - Sergei Fedorchenko, Gregory Fedorchenko
ID 200	<i>Phase Load Balancing in Low Voltage Distribution Networks Using Metaheuristic Algorithms</i> - Ovidiu Ivanov, Bogdan-Constantin Neagu, Mihai Gavrițaș, Gheorghe Grigoraș, Călin-Viorel Sfintes
ID 210	<i>Compact and Controllable Electric Lines</i> - Vitalie Postolaty, Elena Bycova, Vladimir Berzan
ID 238	<i>The opportunity to treat the neutral through the resistor or combined compensation coil - resistor</i> - Ina Dobrea

ID 102	<i>The Correlation between Energy Resources Tariffs, Inflation and Competitiveness</i> – Tatiana Gutium
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ID 104	<i>Energy Resource Tariffs as a Tool for Comparing and Influencing Macroeconomic Indicators and Competitiveness</i> - Tatiana Gutium, Vitaly Postolaty
ID 160	<i>Numerical Modeling of Intelligent Heating Systems to Improve their Energetic Efficiency</i> - Bogdan Alexandru Rădulescu, Victorița Rădulescu

## Special Session **Tendences in Lighting Engineering**

**Room 2-230** (9h00-10h45)

**Chairmen:** Dorin LUCACHE

<b>Keynote speaker:</b>	Cătălin Daniel GĂLĂȚANU <i>„Improving the luminance measurement from digital images</i>
ID 205	<i>Reduction of Energy Consumption for Architectural Lighting Systems</i> - Cristian Gozo Haba, Cătălin Daniel Gălățanu, Liviu Breniuc
ID 220	<i>Improving the luminance measurement from digital images</i> - Cătălin Daniel Gălățanu
ID 228	<i>Study Case for Illuminance Calculation for Footpaths</i> - Alexandru Viorel Rusu, Dorin Dumitru Lucache, Gheorghe Livint
ID 250	<i>Assessment of Conflict Area Parameters Measurements by Using Photographical Methods</i> - Alexandru Viorel Rusu, Dorin Dumitru Lucache, Gheorghe Livint

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