



# SIEMEN 2023

## PROGRAM

### OF THE 14th INTERNATIONAL CONFERENCE ON ELECTROMECHANICAL AND ENERGY SYSTEMS

#### Organized by:

FACULTY OF ELECTRICAL ENGINEERING OF CRAIOVA - ROMANIA  
FACULTY OF ELECTRICAL ENGINEERING OF IAȘI – ROMANIA  
FACULTY OF POWER AND ELECTRICAL ENGINEERING CHIȘINĂU -  
MOLDOVA

#### SPONSORS AND PARTNERS:

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Asociația Companiilor din Industria Electronică din Moldova (ACEM)  
With the support of ASTR (Technical Sciences Academy of Romania)

## PROGRAM AT A GLANCE

<b>Thursday, October 12</b> <b>Chișinău – Republic of Moldova</b> <b>Tekwill Center, no. 9/11, Studentilor (UTM campus, Râșcani sector)</b>		
<b>12:00-14:00</b>	<b>Registration of participants</b>	<b>Entrance hall</b>
<b>12:30-13:30</b>	<b>Welcome cocktail</b>	<b>Tekwill cafe</b>
<b>14:00-15:00</b>	<b>Opening ceremony</b> <b>Channel link: <a href="#">link</a></b>	<b>Imaginarium Hall</b>
<b>15:00-17:00</b>	<b>Plenary session</b> <b>Channel link: <a href="#">link</a></b>	<b>Imaginarium Hall</b>
<b>17:00-17:30</b>	<b>Coffee break</b>	<b>Tekwill cafe</b>

17:30-18:30	<b>Posters Session</b>		<b>FabLab UTM</b> (entrance from the left Tekwill)
19:00-23:00	<b>Gala Dinner</b>		<b>Restaurant, Râscani sector</b>
<b>Friday, October 13</b> <b>Chişinău, Technical University of Moldova (UTM) Faculty of Power and Electrical Engineering (FEIE), No. 78, 31 August str., Building no. 2</b> <b>(Center Sector, next to the Government House)</b>			
9:00-10:30	<b>Oral sessions</b> <u>Special Session</u> Oral 1 EERR-2 Oral 2 PGTD and RD Oral 3 ARM and PED	<b>On-line Sessions</b> <u>On-line 1 EM-1</u> <u>On-line 2 EERR-1</u> <u>On-line 3 ARM and EA</u>	Building 2, FEIE, UTM
10:45-11:00	<b>Coffee break</b>		Building 2, FEIE, UTM
11:00-12:30	<b>Oral sessions</b> Oral 4 ETAE and ARM Oral 5 EERR-3 Oral 6 EM and MMS Oral 7 EEE and ME	<b>On-line Sessions</b> <u>On-line 4 IA</u> <u>On-line 5 ETAE and PED</u> <u>On-line 6 EEE and PGTD</u>	Building 2, FEIE, UTM
12:30-13:00	<b>Lunch</b>		Building 2, FEIE, UTM
13:00-14:00	<b>Closing Session</b>		Building 2, FEIE, UTM
14:00-15:00	<b>Transfer to the MIMI Castle winery (optional)</b>		
15:00-18:00	<b>Visiting the cellars and wine tasting, MIMI Castle (optional)</b>		

# SIEMEN 2023 TECHNICAL PROGRAM

**Thursday, October 12**

**Chişinău – Republic of Moldova, Tekwill Center,**  
no. 9/11, Studentilor (UTM campus, Râşcani sector),  
<https://tekwill.md/>

**Plenary Session (15:00-17:00)**

**Tekwill, Imaginarium hall**

**Channel link: [link](#)**

**Chairs: Dorin LUCACHE, Ilie NUCĂ, Mihaela POPESCU**

<b>Plenary 1</b>	<i>Dedicated Analog Circuit Simulation Programs (ID 49)</i>	Mihai IORDACHE
<b>Plenary 2</b>	<i>The Southern Development Region of the Republic of Moldova in context of the wind energy potential (ID 155)</i>	Vasile RACHIER
<b>Plenary 3</b>	<i>Implementation of Rotor Flux-Oriented Control on Traction System of Autonomous Electric Locomotives (ID 52)</i>	Alexandru BITOLEANU
<b>Plenary 4</b>	<i>Current Issues in the Dynamics of Electrical Machines</i>	Aurel CAMPEANU
<b>Plenary 5</b>	<i>Design and Manufacturing Aspects of a Lightweight Racing Electric Vehicle (ID 75)</i>	Mehmet Murat TEZCAN

**Thursday, October 12**

**Chişinău – Republic of Moldova, Tekwill Center,**  
no. 9/11, Studentilor (UTM campus, Râşcani sector),  
<https://tekwill.md/>

**SESSION POSTER - 1 (17:30-18:30)****Tekwill, FabLab hall****Chairs: Sorin Ioan Deaconu, Costică Nițucă, Vadim Cazac**

ID 21	<i>Numerical modeling of two-dimensional conduction for different wall structures</i>	Felicia Elena Stan Ivan, Cosmin Gabriel Buzatu, Adelaida Mihaela Duinea
ID 23	<i>The comparative study regarding cooling systems by thermal radiation</i>	Cristina Prodan
ID 24	<i>Comparative study in terms of the energy supply of a residential house, through different methods</i>	Cristina Prodan, Nicolae Carpiuc, Sebastian Anton
ID 36	<i>Increasing the efficiency of the drying process of fruit products with the application of microwave tunnel treatment</i>	Victor Popescu, Mihail Melenciuc, Mihail Balan, Vitali Vișanu, Onorin Volconovici
ID 37	<i>Estimating the influence of random factors on the operational reliability of electricity supply networks</i>	Victor Popescu, Vadim Cazac, Dinu Voinesco, Ghenadie Terteia, Anatol Cecan, Tatiana Todiraș
ID 44	<i>Design and Monitoring of a Domestic Solar Power Plant</i>	Ion Cristian Popa, Alexandru Bitoleanu, Mihaita Linca
ID 47	<i>Infrared Monitoring of Low Voltage Switch Separator Contact Resistance</i>	Alin Dragomir, Maricel Adam, Gabriel Chiriac, Dragos Murgoci, Adrian Vilcu, Costică Nițucă
ID 48	<i>Influence of Thermal Agent Production Method on Thermal Energy Costs</i>	Radu Cristian Dinu, Felicia Elena Stan Ivan, Maria Silvia Diga, Dan Gabriel Stanescu
ID 80	<i>Influence of the single-phase fault passing resistance on the shunt breaker technical efficiency</i>	Ion Marin, Paul-Mihai Mircea, Doru Ursu, Cristian Bratu, Eugen Butoarca, Ion Mircea

ID 84	<i>Optimizing Energy Production for Wind Turbines Operating in Variable Wind Speed Conditions</i>	Cristian Paul Chioncel, Elisabeta Spunei, Ovidiu-Gelu Tirian
ID 103	<i>Using the variable flow hydropower potential of a drinking water supply pipe of a small town</i>	Sorin Ioan Deaconu, Radu-Mihnea Babau, Marcel Topor, Feifei Bu
ID 118	<i>Influence of the Wind Speed Amplitude on the Energy Captured by a Wind Turbine Operating at Time-Varying Wind Speeds</i>	Cristian Paul Chioncel, Elisabeta Spunei, Ovidiu-Gelu Tirian
ID 124	<i>Magnetic Circuit Segmentation Effects on Fractional Slot Concentrated Winding Synchronous Machine with Grain Oriented Electric Steel</i>	Leonard Livadaru, Bogdan Virlan, Adrian Munteanu, Ionut Nacu, Alecsandru Simion, Ion Nastas
ID 138	<i>Comparative Analysis of Performances of Photovoltaic Power Plants</i>	Linca Mihaita, Popa Ion, Suru Constantin Vlad, Ravigan Florin
ID 162	<i>Development of the Six-Phase Static Converter with Symmetrical and Asymmetrical Control for Electric Vehicles</i>	Ilie Nuca, Vadim Cazac, Alexandr Motroi, Corneliu Gherțescu, Vitalie Eșanu
ID 143	<i>Electric Vehicle Architecture Modeling Based on Matlab and SysML for Discrete and Continuous Simulation</i>	Vlad-Andrei Scarlatache, Sebastian Aradoaei, Marius Andrei Olariu, Florina Scarlatache, Tudor Alexandru Filip, Ramona Simionescu

**SESSION POSTER - 2 (17:30-18:30)****Tekwill, FabLab hall****Chairs: Mihai Iordache, Elisabeta Spunei, Mihai Tîrşu**

ID 38	<i>Complementary analysis of the fault condition of transformers in service</i>	Maria Cristina Nitu, Ancuta-Mihaela Aciu
ID 42	<i>Analysis of the evolution of electricity production in Romania</i>	Elisabeta Spunei, Andrea-Amalia Minda, Ion Piroi, Naomi-Ionela Şoanda
ID 45	<i>Study Regarding the Level of a Hydrogenerator Partial Discharges</i>	Elisabeta Spunei, Gheorghe Liuba, Calin-Octavian Miclosina
ID 50	<i>Factors Influencing the Optimization of Magnetically Coupled Coil Structures-Analysis and Discussions</i>	Lavinia Bobaru, Dragoş Niculae, Georgiana Rezmeriţă, Marilena Stănculescu, Mihai Iordache, Oana Drosu, Sorin Deleanu
ID 57	<i>Conceptual design for the performance of public infrastructure and utilities in urban water treatment plants</i>	Moldovan Artiom, Nuca Ilie, Milici Dan, AbuBandora Mahmoud
ID 82	<i>Sensory system based on intelligent sensors for the implementation of a modern weather station</i>	Marius Branzila, Ştefan-Andrei Cişlariu, Silviu Vornicu, Carmen Brinzila
ID 83	<i>Experiments on the measurement of the electromagnetic field</i>	Voicu Viorica, Dina Livia Andreea, Dumbrava Ionel, Mircea Paul-Mihai, Ioan Fieraru
ID 94	<i>Testing the Interaction of Electromagnetic Radiation with Nano/Micro-Conductive Composite Material</i>	Mihaela Aradoaei, Oliver Schreiner, Andreea-Maria Lucaci, Vlad Morosanu, Georgiana Patrascu, Adrian Saridache, Cristina Schreiner, Sebastian Aradoaei

ID 95	<i>A Study of a Fractional Slot Concentrated Wound Permanent Magnet Synchronous Motor with Grain Oriented Electric Steel Lamination for Modular Stator Geometry</i>	Ion Nastas, Bogdan Virlean, Adrian Munteanu, Alecsandru Simion, Leonard Livadaru, Ionut Nacu
ID 114	<i>Control, Command and Regulation System Based on Virtual Instrumentation for Three-Phase Alternating High Current Source</i>	Gheorghe Eugen Subtirelu, Petre Pistol, Adrian Vintila, Mihaita Constantinescu
ID 115	<i>Simulating The Interaction Of Electromagnetic Radiation With Matter, Within Nano/Micro-Conductive Composite</i>	Mihaela Aradoaei, Oliver Schreiner, Ionel Alexa, Alin Olteanu, Madalina Ancuta Pintilei, Romeo Cristian, Ciobanu Sebastian Aradoaei
ID 135	<i>Application of the Direct Power Control in a Three-Phase Shunt Active Power Filter System</i>	Mihaita-Daniel Constantinescu, Mihaela Popescu, Gheorghe-Eugen Subtirelu, Cosmin-Ionut Toma
ID 139	<i>Application of SCADA System in an Electrical Substation and Remote Terminal Unit Parametrization</i>	Cosmin-Ionut Toma, Mihaela, Popescu Ion-Cristian Popa
ID 141	<i>Numerical Solution of the Heat Conductance Equation</i>	Adelaida Mihaela Duinea, Felicia Elena Stan Ivan, Anca Petrisor
ID 163	<i>Building a low-cost three-axis CNC machine for processing soft materials</i>	Alexandru Palcu, Dumitru Dorin Lucache
ID 166	<i>Synthesis of Agent-Based Decision-Making Systems with Multiple Coalitions</i>	Victor Ababii, Viorica Sudacevschi, Silvia Munteanu, Viorel Carbune, Radu Melnic, Victor Lasco

**Friday, October 13**

**Technical University of Moldova (UTM) Faculty of  
Power and Electrical Engineering (FEIE), No.78, 31  
August str., Building no. 2**

**Special Session (9:00-10:30)**

**Special CEEPUS Session on E-Learning and E-  
Management**

**Room 2-201**

**Channel link: [link](#)**

**Chairs: Galia Marinova, Corina-Guțu Chetrușca**

ID 125	<i>FPGA Power Consumption Optimization Methods Analysis</i>	Marsida Ibro, Galia Marinova	Oral presentation
ID 126	<i>Web-based calculator tool for FPGA power consumption estimation for teaching purposes</i>	Marsida Ibro, Galia Marinova	Oral presentation
ID 121	<i>Comparative study of compression functions in modern web programming languages</i>	Krisel Tola	On-line presentation
ID 127	<i>Comparison and Rule-Based implementation in IMA-NET of PHP compression functions</i>	Krisel Tola, Galia Marinova	On-line presentation

**ON-LINE SESSION - 1 (9:00-10:30)**

**EM (Electrical Machines) - 1**

**Channel Link: [link](#)**

**Chairs: Ion Voncilă, Svilen Rachev, Adrian Țurcanu**

ID 26	<i>Influence of the Mechanical Equipment on the Drive Behavior of an Electric Vehicle</i>	Svilen Rachev, Yanko Takavidov, Lyubomir Dimitrov, Dimitrina Koeva
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ID 32	<i>Research using modular resistive power load blocks for frequent starting of wound rotor induction motor, used in High Power Testing Laboratories</i>	Ocoleanu Daniel Constantin, Salceanu Cristian Eugeniu, Ionescu Mihai, Mihaita Ovidiu, Iovan Daniela, Nicola Marcel, Ghiorlan Andrei
ID 58	<i>Inner-Rotor And Outer-Rotor PMSG Designs for Novel Offshore Wind Turbines</i>	Seyed Abolfazl Mortazavizadeh, Reza Yazdanpanah, David Campos-Gaona, Olimpo Anaya-Lara
ID 62	<i>Influence of nonlinearity and driving angles on the functional and performance characteristics at SRMs</i>	Ion Voncilă, Elena Selim
ID 74	<i>Simulation and control of a nine phase induction machine used in propulsion system for electric vehicles</i>	Iulian Balan, Alexandru-Iulian Timofte, Vasile Horga, Alexandru Sălceanu
ID 160	<i>A novel sensorless control of a hybrid excitation synchronous machine used in the field of electric traction</i>	Alexandru Timofte, Iulian Balan, Vasile Horga, Alexandru Salceanu

## ON-LINE SESSION - 2 (9:00-10:30)

**EERR (Energy Efficiency and Renewable Resources) - 1**  
**Channel link: [link](#)**

**Chairs:** Olimpiu Stoicuta, Corina Maria Dinis, Octavian Mangos

ID 68	<i>An Analysis of the Power Factor Compensation Within the Power Grid of an Industrial Plant by Means of Supervised Learning Methods</i>	Lia Elena Aciu, Adrian Danila
ID 72	<i>The role, the importance and econometric analysis of nuclear power production in Romania and European Union</i>	Nadia - Elena Stoicuta, Olimpiu Stoicuta

ID 76	<i>Experimental Investigations of the Operation of Capacitors Driven by SSRs</i>	Corina Maria Dinis, Gabriel Nicolae Popa, Angela Iagar
ID 77	<i>Experimental Investigations of the Operation of LC filters Driven by SSRs</i>	Corina Maria Dinis, Gabriel Nicolae Popa, Raluca Oana Sonia Rob
ID 98	<i>Electric Discharges and Dielectric Barrier Influence on Electric Field Distribution in Solar Air Heater Systems</i>	Visarion Catalin Ifrim, Laurentiu Dan Milici, Teodor Pop, Constantin Ungureanu
ID 107	<i>Improving the ecological performance of free-piston gas generator by air-gas mixture self-ignition</i>	Andrei Zelentsov, Alexei Abakumov

### ON-LINE SESSION - 3 (9:00-10:30)

### ARM (Automation, Robots and Mechatronics) and EA (Electrical Apparatus)

Channel link: [link](#)

Chairs: Marcel Nicola, Alin-Iulian Dolan, Iurie Nuca

ID 33	<i>Experimental Study of the Pressure Exerted in the Body of a High-Voltage Fuse</i>	Cristian-Eugeniu Sălceanu, Cătălin Dobrea, Marcel Nicola, Daniel Constantin Ocoleanu, Stefan Seitan, Daniela Iovan, Mihai Ionescu, Ovidiu Mihaita
ID 59	<i>Improvement Performances of Sensorless Control for PMSM Based on FOC Strategy Using Luenberger Observer, Sine Cosine Algorithm, and RL-TD3 Agent</i>	Marcel Nicola, Claudiu-Ionel Nicola
ID 113	<i>Useful Experiment Based Formulas for Estimating the Heating of Crimped Connections</i>	Alin-Iulian Dolan

ID 128	<i>Optimization of Cylindrical Blades for Wind Turbine Based on Magnus Effect</i>	Galina Demidova, Aleksandr Lukin, Dmitry Lukichev, Nikolai Poliakov, Alecksey Anuchin
ID 140	<i>Research and Design Microgrid using Ocean Wave Energy for Electric Vehicles Load on Islands in Vietnam</i>	Hung Nguyen Van, Minh Nguyen Quoc
ID 149	<i>Remote Health Monitoring System to Prevent the Spread of Contagious Viruses</i>	Marian-Ștefan Nicolae, Florentina-Fulgina Bizic, Nicolae-Leonide Sîrbu, Iurie Nucă, Raluca-Cristina Presură

**Oral - 1 (9:00-10:30)**

**EERR (Energy Efficiency and Renewable Resources) - 2**

**Room 2-222**

**Chairs:** Gheorghe Manolea, Gelu Gurguiatu, Dumitru Braga

ID 29	<i>Energy System Functioning Considering the Massive Integration of Variable Renewable Energy Sources</i>	Dumitru Braga
ID 30	<i>Energy crises – energy transition driving force</i>	Dumitru Braga, Corina Gutu-Chetrusca
ID 89	<i>Solar Tracking Systems for Photovoltaic Panel Made for Educational Purposes</i>	Ionel-Laurentiu Alboteanu, Gheorghe Manolea, Cristian Bratu
ID 92	<i>Energy performance assessment for operational PV installations</i>	Gelu Gurguiatu
ID 112	<i>Photovoltaic Stations with NPC Inverters Adjusted by Specific Control and PWM Schemes and Algorithms</i>	Valentin Oleschuk
ID 123	<i>Heat Pumps Use for Increasing Heat Power Plant Efficiency. A preliminary Analysis for District Heating in Bălți City of Moldova</i>	Cristina Efremov, Marian Brinza, Mihai Sanduleac, Constantin Ionescu, Alexandru Sandulescu

**Oral - 2 (9:00-10:30)**

**PGTD (Power Generation, Transport and Distribution) and  
RD (Reliability and Diagnosis)**

**Room 2-117**

**Chairs:** Viorica Hlusuov, Dragos Niculae

ID 35	<i>Assessment of the Economic Efficiency of Reactive Power Compensation Measures In Electrical Distribution Networks</i>	Viorica Hlusuov, Corina Guțu-Chetrușca, Elena Vasilos
ID 39	<i>The analysis of the influence of load asymmetry on the operating regimes of transformers with various connection schemes</i>	Adrian Rotaru, Iulian Rotari, Ion Stratan
ID 43	<i>Device for monitoring the condition of people with balance problems</i>	Constantin-Daniel Oancea
ID 65	<i>Availability of hydro generating units based on the maintenance schedule</i>	Ionuț Ilișescu, Ciprian Nemeș, Florin Baiceanu
ID 104	<i>Determining the Occupancy Patterns and Typical Power Demand Profiles of the Electric Vehicle Charging Stations Using a Flexible Clustering-based Data Mining Framework</i>	Ecaterina Chelaru, Vasilica Dandea, Livia Noroc, Gheorghe Grigoras
ID 129	<i>Modeling the impact produced by 400 kV power lines on the environment using Fuzzy logic</i>	Victorita Radulescu

**Oral - 3 (9:00-10:30)**

**ARM (Automation, Robots and Mechatronics) and PED  
(Power Electronics and Drives)**

**Room 2-122**

**Chairs:** Adrian Graur, Marian-Silviu Poboroniuc, Irina Cojuhari

ID 90	<i>3D Printed Upper Limb Prosthesis Controlled by the Healthy Hand</i>	Stefan-Adrian Ionescu, Marian-Silviu Poboroniuc
ID 93	<i>Data-Driven Control of the Second Order Inertial Systems with Astatism</i>	Irina Cojuhari
ID 111	<i>Basic Aspects of the Theoretical and Practical Relevance of the Method of Synchronous Multi-Zone PWM for Power Inverters</i>	Valentin Oleschuk
ID 117	<i>Comparative Analysis of Controller Tuning Methods for Second-Order Time Delayed Object Model with Astatism</i>	Bartolomeu Izvoreanu, Irina Cojuhari, Ion Fiodorov, Dumitru Moraru, Adrian Secieru, Mihail Potlog
ID 136	<i>Comparative Analysis of Controller Tuning Methods for First-Order Inertia Object Model with Astatism and Non-Minimum Phase</i>	Bartolomeu Izvoreanu, Adrian Secieru, Irina Cojuhari, Ion Fiodorov, Dumitru Moraru, Mihail Potlog
ID 137	<i>Comparative analysis of regime parameters of longitudinal-transverse booster transformers</i>	Mihai Stefan Tirsu, Dmitrii Zaitsev, Irina Golub, Danila Kaloshin

#### ON-LINE SESSION - 4 (11:00-12:30)

#### IA (Industry Applications)

Channel link: [link](#)

Chairs: Claudiu-Ionel Nicola, Jose Alfonso Antonino-Daviu, Vadim Cazac

ID 31	<i>Considerations on the Behaviour of Protective Clothing Against the Thermal Hazards Caused by an Electric Arc</i>	Cristian-Eugeniu Salceanu, Catalin Dobrea, Marcel Nicola, Daniel Constantin Ocoleanu, Stefan Seitan, Daniela Iovan, Mihai Ionescu, Andrei Ghiorlan
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ID 60	<i>Determination and Monitoring of the Overhead Electricity Transmission Cables Sag</i>	Claudiu-Ionel Nicola, Marcel Nicola
ID 61	<i>Automation of Dust Removal Process and Application in Industrial Environment</i>	Florin Teisanu, Claudiu-Ionel Nicola, Marcel Nicola
ID 99	<i>Fault Diagnosis in Electric Motors through the Analysis of Currents and Stray Fluxes</i>	Jose Alfonso Antonino-Daviu, Israel Zamudio-Ramirez, Roque Alfredo Osornio-Rios, Larisa Dunai
ID 144	<i>In-wheel slotless permanent magnet electrical machines for solar vehicle propulsion</i>	Vincent Dury, Lionel Steeve Gounou Kouontchou, Mihai Chirca, Stefan Breban
ID 145	<i>Low speed direct drive electrical generator for multi-blade wind turbine application</i>	Stefan Breban, Marius Drancă, Mihai Chirca

**ON-LINE SESSION - 5 (11:00-12:30)**

**ETAЕ (Electrical Traction and Automotive Equipment) and PED (Power Electronics and Drives)**

**Channel link:** [link](#)

**Chairs:** Cristian Daniel Cismaru, Valentin Oleschuk, Marcel Burduniuc

ID 91	<i>Stabilization of Inverter Losses in a Traction Drive of Electric Vehicle</i>	Yousef Ali, Maxim Lashkevich, Dmitry Aliamkin, Evgeniy Stolyarov, Egor Kulik, Alecksey Anuchin
ID 101	<i>Train motion study using Matlab/App Designer</i>	Cristian Daniel Cismaru, Mircea Adrian Drighiciu
ID 102	<i>Designing of Variable Input Multiphase Buck Converter with Efficient Phase Current Balancing Technique</i>	Md Nafeez Rahman, Danis Farrakhov, Viacheslav Vavilov

ID 110	<i>Design Control System of Three Phase Bidirectional DC/DC Converter for Autonomous Gas Turbine Power Plant</i>	Andrey Chepiga, Viktor Monin, Aleksandr Aleksandrov, Dinara Yumasheva, Yuriy Kalachev, Sergei Petrenko
ID 116	<i>Modified Schemes of Control and Multi-Zone PWM of Diode-Clamped Inverters of Drive Installations</i>	Irina Vasiliev, Valentin Oleschuk
ID 132	<i>Current Regulation in Case of Open Circuit Fault for Six-phase Traction Open-end Winding Machine</i>	Evgeniy Stolyarov, Yousef Ali, Maxim Lashkevich, Ksenia Fedorova

### ON-LINE SESSION - 6 (11:00-12:30)

### **On-line 6 EEE (Engineering Education and Evocations) and PGTD (Power Generation, Transport and Distribution)**

**Channel link:** [link](#)

**Chairs:** Valeriu Bosneaga, Lia Aciu, Iulian Rotari

ID 27	<i>Peculiarities of the cable line 10 kV steady state mode with resistive grounding of the neutral at single-phase to ground fault.</i>	Valeriu Bosneaga, Victor Suslov, Ion Stratan, Ina Dobrea
ID 51	<i>Monitoring of classical and modern education</i>	Costel Donose, Cristina Mihaela Schreiner, Ionel Pavel, Madalina Ancuta Pintilei
ID 53	<i>Exploring Practical Implementation of Capacitive Coupling for Flyback Switched Mode Power Supply Loop Closing</i>	Ovidiu Lăudatu, Mihai Iordache, Marilena Stănculescu, Lavinia Bobaru, Dragoș Niculae, Emil Cazacu
ID 54	<i>Current Trends in Power Factor Compensation: Insights and Perspectives</i>	Gabriel Ioana, Emil Cazacu, Marilena Stănculescu, Dragoș Niculae, Mihai Iordache

ID 64	<i>Study and Design of a Teaching Electrical Engineering System Based on Motion Sensors Using Arduino</i>	Laura-Mihaela Lelutiu, Lia Aciu
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**Oral - 4 (11:00-12:30)**

**ETAE (Electrical Traction and Automotive Equipment) and ARM (Automation, Robots and Mechatronics)**

**Room 2-122**

**Chairs:** Alexandru Bitoleanu, Mitrofan Curti

ID 40	<i>Estimation of the Rotor Flux in the Traction Systems with Induction Motors and Field-Oriented Control</i>	Mihaela Popescu, Alexandru Bitoleanu, Constantin Vlad Suru
ID 109	<i>Equipment and Methodology for Detecting Clearance in Front Suspension Joints of Passenger Vehicles by Using Dynamic Acceleration Analysis</i>	Ioan Pavel, Alexandru-Polifron Chirita, Radu-Iulian Radoi, Andrei-Alexandru Benescu, Gheorghe Sovaiala, Ana-Maria Carla Popescu
ID 79	<i>System-Level Modelling, Analysis, and Validation of a Soccer Robot's Shooting Mechanism</i>	Gijs G. H. Peters, Mitrofan Curti
ID 134	<i>Implementation of Hysteresis Current Controllers with Switching Frequency Limitation for Electric Traction Systems with Induction Motor and Rotor Field Orientation Control Using dSpace Prototyping Board</i>	Constantin Vlad Suru, Alexandru Bitoleanu, Mihaela Popescu, Tiberiu Matusa
ID 165	<i>Performance Analysis of an Urban Passenger Vehicle Powertrain Operating in Various Driving Cycle and Speed Profiles Using MatLab Simscape Models</i>	Adrian Turcanu, Ilie Nuca, Vadim Cazac



**Oral - 5 (11:00-12:30)**

**EERR (Energy Efficiency and Renewable Resources) - 3**

**Room 2-222**

**Chairs:** Victorita Radulescu, Victor Gropa, Radu Dumitru Pentiu

ID 130	<i>Intensity of the waves from the Black Sea an energetic advantage but also a risk of coastal erosion</i>	Victorita Radulescu
ID 142	<i>Cost-Benefit Analysis for renewable energy generation in a hotel-type building</i>	Alina Ionela Sumovschi, Radu Dumitru Pentiu, Pavel Atănașoae
ID 157	<i>Determination of wind characteristics for different heights based on digital maps of the wind potential of the Republic of Moldova</i>	Octavian Mangos, Vasile Rachier, Ion Sobor
ID 159	<i>Practical aspects of implementing street and park lighting projects</i>	Victor Gropa, Mihai Sanduleac, Nicolae Mogoreanu, Radu Porumb, Iulian Rotari

**Oral - 6 (11:00-12:30)**

**EM (Electrical Machines) and MMS (Metrology and Measurement Systems)**

**Room 2-120**

**Chairs:** Petru Todos, Leonard Livadaru, Mihai Munteanu

ID 78	<i>Improving performance of low-cost microcontroller equipment, based on systematic errors correction</i>	Constantin-Daniel Oancea, Daniel Bostan, Viorel Constantin Petre
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ID 81	<i>Numerical Analysis and Experimental Validation of a Series Hybrid Excitation Synchronous Machine</i>	Adrian Munteanu, Bogdan Virlan, Leonard Livadaru, Ionut Nacu, Ion Nastas, Ana-Maria Dumitrescu
ID 96	<i>Comparative Analysis between Distributed and Fractional Slot Concentrated Winding of a Wound Rotor Synchronous Machine</i>	Bogdan Virlan, Leonard Livadaru, Adrian Munteanu, Ionut Nacu, Ion Nastas, Alecsandru Simion
ID 97	<i>Assessing Frequency Variability Using Long Term High Reporting Rate Measurements</i>	Anca Petruta Brincoveanu, Efstathios Fiorentis, Ana-Maria Dumitrescu, Mihaela Albu
ID 151	<i>Improved distance measurement using ultrasonic sensors</i>	Cristian Zet, Cristian Fosalau, Anamaria Hariton, Gabriel Constantin Sarbu
ID 154	<i>Test-Based Analysis of Fault Tolerance Capability of Six-Phase Asynchronous Motors</i>	Ghenadie Terteia, Petru Todos, Ilie Nuca, Vadim Cazac

**Oral - 7 (11:00-12:30)**

**EEE (Engineering Education and Evocations) and ME (Management and entrepreneurship)**

**Room 2- 117**

**Chairs: Cristian Gyozo Haba, Radu Zlatian**

ID 67	<i>Verification and validation of safety critical system requirements</i>	Radu Zlatian, Ovidiu Dreșcă
ID 105	<i>Using AR in technical education. The ARphymedes case</i>	Dumitru Dorin Lucache , Cristian Gyozo Haba, Mihaita Emanuel Anton, Carmen Tita
ID 147	<i>Experimental Study on Monitoring Aging Insulation of Conductors and Cables in Electrical Installations</i>	George Balan, Nelu Cristian Cherecheș, Dorin Dumitru Lucache

ID 152	<i>Interior lighting, a challenge for yesterday's and today's engineering</i>	Iulian Gherasim, Catalin Daniel Galatanu
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### Links to sections:

SIELMEN 2023 THURSDAY, OCTOBER 12th: OPENING CEREMONY, TEKWILL, IMAGINARIUM HALL:

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_YjFhZDBjMTYtNjhjZi00MjQwLTgyOTEtODVhYzBkMDgyOWZk%40thread.v2/0?context=%7b%22Tid%22%3a%221b6d1f48-8893-4889-bdbf-1fb841bcae46%22%2c%22Oid%22%3a%22edef22c3-c90c-4b3e-93d9-3ffb26d7389%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_YjFhZDBjMTYtNjhjZi00MjQwLTgyOTEtODVhYzBkMDgyOWZk%40thread.v2/0?context=%7b%22Tid%22%3a%221b6d1f48-8893-4889-bdbf-1fb841bcae46%22%2c%22Oid%22%3a%22edef22c3-c90c-4b3e-93d9-3ffb26d7389%22%7d)

SIELMEN 2023 THURSDAY, OCTOBER 12th: PLENARY SESSION, TEKWILL, IMAGINARIUM HALL:

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SIELMEN 2023 FRIDAY, OCTOBER 13th: Special CEEPUS Session on E-Learning and E-Management

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SIELMEN 2023 FRIDAY, OCTOBER 13th: ON-LINE SESSION - Electrical Machines

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