

# EPE 2020 TECHNICAL PROGRAM

THURSDAY - OCTOBER 22, 2020

## 9.00 OFFICIAL OPENING

PLENARY SESSIONS		
9.30	Monica SIROUX	Analysis of micro cogeneration systems in the context of smart energy grids
10.00	Gianfranco CHICCO	New trends for active distribution grids

BREAK

EM 1 (Electrical machines 1)		
Chairs: Claudia Martis, Adrian Munteanu		ID
Raluca-Cristina Nicolae (Presură), Sorin Enache, Marian-Ştefan Nicolae, Ion Vlad, Ilie-Aurel Gheorghe, Radu Zlatianu	The importance of the cross geometry over the optimal design of asynchronous traction motors	3821
Jose Enrique Ruiz Sarrió, Caludia Martis, Fabien Chauvicut	Numerical Computation of Parasitic Slot Capacitances in Electrical Machines	3883
Adrian Danila	PCA-Based Analysis of Thermographic Data For the Estimation of the Parameters of the Electrical Motors' Thermal Models	3887
Maria Raluca Raia, Sebastian Ciceo, Fabien Chauvicut, Claudia Marti	Influence of Stator Teeth Harmonic Shaping on the Vibration Response of an Electrical Machine	3923
Marius Drancă, Mihai Chirca, Ştefan Breban, Marius Fărtan	Thermal and Demagnetization Analysis of an Axial-Flux Permanent Magnet Synchronous Machine	3925

MMS 1 (Metrology and measurement systems 1)		
Chairs: Oleh Velychko, Alexandru Salceanu		ID
Oleh Velychko, Tetyana Gordiyenko, Alexandru Salceanu	Alternative Evaluation of the Results of Key Comparisons of Electrical Capacitance Standards	3785
Oleh Velychko, (UA), Tetyana Gordiyenko, (UA), Alexandru Salceanu, (RO)	Alternative Evaluation of Key Comparisons Results of the AC-DC Voltage Transfer Difference Standards	3787
Alexandru Salceanu, (RO), Silviu Vornicu, (RO), Dragos Florin Bordeianu, (RO), Constantin Dan Neagu, (RO)	Study Upon the Influence of Bundle Configurations on Corona Losses	4241
Gabriel Constantin Sârbu, (RO)	Evaluation of the uncertainty of measurement in calibration bell standard installation	3861
Gabriel Constantin Sârbu, (RO), Oana Beniugă	Evaluation of the uncertainty of measurement in calibration of volumetric standard installation	3865

PS 1 (Power systems 1)		
Chairs: Ion Tristiu, Mihai Gavrilas		ID
Ioan – Cătălin Damian, Mircea Eremia, Andreea Iantoc	Detailed Modelling and Control of a Multiterminal High Voltage DC Network	3711
Andrea Schaefer, Jutta Hanson, Gerd Balzer	Developing a Simplified Network Model for Load-Flow and Harmonic Studies	3811
Irina I. Picioroaga, Andrei Tudose, Dorian O. Sidea, Constantin Bulac, Mircea Eremia	Two-level Scheduling Optimization of Multi-microgrids Operation in Smart Distribution Networks	4076
Dorian O. Sidea, Irina I. Picioroaga, Andrei M. Tudose, Constantin Bulac, Ion Tristiu	Multi-Objective Particle Swarm Optimization Applied on the Optimal Reactive Power Dispatch in Electrical Distribution Systems	4078
Dănuţ Adrian Poştovei, Constantin Bulac, Ion Tristiu, Balduino Camachi	Setting up a Distributed Control System Laboratory	4148

BREAK

EM 2 (Electrical machines 2)		
Chairs: Sorin Enache, Adrian Munteanu		ID
Adriana Tintelecan, Anca Constantinescu-Dobra, Claudia Martis	Life Cycle Assesment Comparison of Synchronous Motor and Permanent Magnet Synchronous Motor	3927
Mihai Chirca, Marius Alexandru Dranca, Stefan Breban, Claudiu Alexandru Oprea	PMSM Evaluation for Electric Drive Train for L6e Light Electric Vehicles	3929
Sorin Enache, Aurel Campeanu, Monica Adela Enache, Ion Vlad, Marian Popescu	Optimizing Design of Transformers Used in Railway Traction	3952
Adrian Munteanu	Flux – Simulink Co-Simulations for BLAC Motor Control with Magnetoresistive Angle Sensor Analysis	3960
Shruti Singh	Sensitivity Analysis of Surface Mounted PMSG for Stand-alone Wind Energy Conversion System	3962

MMS 2 (Metrology and measurement systems 2)		
Chairs: Cristian Fosalau, Cristian Zet		ID
Cristian Fosalau, Cristian Zet, Anamaria Hariton	Using Kalman Filters for Increasing Accuracy of Distance Measurement Using a Single Camera	4183
Cristian ZET, Cristian Fosalau, Anamaria Hariton	Generating programmable waveforms using FPGA	4280
Iulian Ghinda, Codrin Donciu	Distance measurements using 40L16 ultrasonic sensors	4169
Alexandru Viorel Rusu, Catalin Daniel Galatanu, Dorin Dumitru Lucache, Gheorghe Livint	Luminance Uniformity Analysis Based on Digital Camera Measurements	4064
Eugen Harasim, Codrin Donciu	Video distance measurement based on focus	4185

<b>PS 2 (Power systems 2)</b>		
<b>Chairs: Mihai Gavrilas, Gheorghe Grigoras</b>		<b>ID</b>
Claudiu Buca, Marcel Istrate	Implementation of the Automatic Line Reclosure using PLC and Petri Nets Modelling	3968
Livia Noroc, Gheorghe Grigoras	Clustering-based consumers' selection to optimal placement of the phase load balancing devices	3847
Ecaterina Chelaru, Gheorghe Grigoras	Decision Making Strategies to Establish the Replacement Priority of Transformers from Electric Distribution Substations	3851
Mohan Muniappan	DC Fault Analysis in VSC Based HVDC Systems	3939
Valentin Nicolae Cococi, Carmen Anca Safta, Constantin Călinoiu	Numerical simulation approach of a pneumatic actuator to force perturbation	4187

BREAK

<b>EM 3 (Electrical machines 3)</b>		
<b>Chairs: Leonard Livadaru, Adrian Munteanu</b>		<b>ID</b>
Adrian Munteanu, Alexandra Bobu, Leonard Livadaru, Bogdan Virilan, Ionut Nacu	Study of a Fractional Slot Concentrated Winding Doble Rotor Permanent Magnet Synchronous Motor for In-Wheel Direct-Drive Applications	4044
Alexandra Bobu, Adrian Munteanu, Leonard Livadaru, Alecsandru Simion, Bogdan Virilan	Comparative Study of an External Rotor Permanent Magnet Synchronous Generator with Fractional Slot Concentrated Winding and Different Number of Pole Pairs for Wind Energy Applications	4046
Ioan-Dragos Deaconu, Aurel-Ionut Chirila, Valentin Navrapescu, Constantin Ghita, Alina Rachiteanu, Alexandru Marius Viisoreaanu	The influence of parameters of a power transformer winding equivalent distributed circuit model on atmospheric overvoltage wave internal propagation along the windings	4144
Bogdan Virilan, Adrian Munteanu, Ionut Nacu, Cosmin-Adrian Popescu, Mihai-Catalin Dumitrachi	Comparative Analysis of Two Permanent Magnet Fractional Generators	4152
Livia Cociu, Radu Cociu	Considerations about Rotor Current of an Asymmetrically Supplied Induction Machine	4158

<b>MMS 3 (Metrology and measurement systems 3)</b>		
<b>Chairs: Octavian Postolache, Cristian Zet</b>		<b>ID</b>
Mariana Barros, Pedro Santana, Alexandre Almeida, João Monge	Environmental pollution monitoring based on sensor network and open-software - open-hardware	4171
Chen Ye, (PT), Octavian Postolache, (PT), Yongsheng Yang, (CN), Wangqiang Niu, (I)	Design of Wireless Power Transfer Circuit for Stable Voltage Output	4283
Cristian Fosalau, Ionut Adrian Iftode	Wavelet-based Techniques Applied to Digital Processing of ECG Signals	4086
Anamaria Hariton, Cristian Zet, Emil Vremera, Cristian Fosalau	Remote Laboratory - Study of Digital Oscilloscope	4132
Joao Monge, (PT), Octavian Postolache, (PT), Alexandru Trandabat, (RO), Stefan Macovei, (I)	Multi-node potentiostat device and multiplatform mobile application for in-field measurements	4268

<b>REN (Renewable energy)</b>		
<b>Chairs: Mihai Sanduleac, Dragos Machidon</b>		<b>ID</b>
Ciprian Cristea, Maria Cristea, Radu-Adrian Tirnovan, Iulian Birou	Economic assessment of grid-connected residential rooftop photovoltaic system with battery energy storage system under various electricity tariffs: a case study in Romania	3767
Maria Cristea, Radu-Adrian Tarnovan, Ciprian Cristea, Cristian Faagarasan	Optimal sizing of electrical energy storage system for a household with a grid-connected PV system using inventory model	3819
Cercel George, Tiganasu Cosmin, Nemes Ciprian	Photovoltaic panels analysis based on Simulink tools	3839
Tiganasu Cosmin, Cercel George, Nemes Ciprian	Self-Consumption Indices Evaluation for a Residential Load Profile	3845
Mihai Sanduleac	PV panels tilt angle assesement under restricted area conditions and resilience in a Romanian case	3978
Bogdan Adrian Enache, George-Calin Seritan, S. Griqorescu, et al.	A battery screening system for second life LiFePO4 batteries	3984
Dragos Machidon, Roxana Oprea, Istrate Marcel, Razvan Beniuga	Energy output increase by using a periodic orientation system for fixed photovoltaic panels	4062
Virginia Vasile, Horia Neacula	Characteristics of a novel latent thermal fluid	4205

BREAK

<b>EA 1 (Electrical apparatus 1)</b>		
<b>Chairs: Monica Siroux, Adrian Plesca</b>		<b>ID</b>
G. Mocanu, G. Gabor, A.T. Plesca, M. Adam, M. Andrusca	Temperature Monitoring of the Heating Resistors of the Railway Switches from Romanian Railway System	3907
D. Botoc, A.T. Plesca, Monica Siroux, D. Braga	The Influence of the Magnetic Field on the Gadolinium Material	3970
D. Botoc, A.T. Plesca, Monica Siroux	Modeling and Simulation Magnetocaloric Effect	3972
P.V. Rosu, A.T. Plesca, G. Gabor, G. Chiriac	Optimizing the Operation of Photovoltaic Panel Systems	3998
F. Lupoiu, A.T. Plesca, G. Gabor, G. Chiriac	A New Solution of Electronic Device Proposed for Cereals, Vegetables and Fruits Storage	4068

<b>EFEC (Electromagnetic field and electrical circuits)</b>		
<b>Chairs: Mihai Iordache, Camelia Petrescu</b>		<b>ID</b>
Camelia Petrescu, Lavinia Ferariu	Mode analysis in planar dielectric-conductor waveguides using genetic algorithms	3958
M. Gliga, C. Păcurar, C. Munteanu, S. Andreică, C. Constantinescu, A. Giurgiuman	Analysis of different type of ring inelar permanent magnets in order to achieve an uniform magnetic field around them	4066
S. Andreica, C. Munteanu, M. Gliga, Claudia Pacurar, A. Giurgiuman, C. Constantinescu	Design of multilayer spiral coils with different geometries to determine the inductance	4098
Camelia Petrescu	Quality Factor Determination in Waveguide Resonators with Lossy Dielectric Intrusions	4116
A. Mureşan, L. Czumbil, D.D. Micu, Th. Papadopoulos	Analysis of electromagnetic interferences between ac HV power lines and metallic pipeline using two different approaches based on circuit theory and electromagnetic field theory	4150
Marius Florin Staniloiu, Horatiu Samir Popescu, Bogdan Ionut Glod, Mihai Iordache	SPICE model of a real capacitor	4030
Marius Florin Staniloiu, Horatiu Samir Popescu, Bogdan Ionut Glod, Mihai Iordache	SPICE model of a real coil. Inductance feature analysis with current variation	4110

<b>QRS (Quality, reliability and safety)</b>		
<b>Chairs: Constantin Ionescu, Florin Munteanu</b>		<b>ID</b>
Florin Baiceanu, Oana Beniuga, Razvan Beniuga, Egidiu Diac	Quality Assessment of Power Transformers Differential Protection Behavior Using Harmonic Restraint Techniques	4247
Florin Baiceanu, Florin Munteanu, Ciprian Nemes	Transient Power Quality Mitigation by Synchronized Capacitor Banks Switching	3829
Alexandru Ciocea, Florin Munteanu, Ciprian Nemes	Methods and Techniques for Photovoltaic Solar Power Plant Monitoring and Wearing State Evaluation	4142
Mihaela Larion, Florin Munteanu, Catalin Galatanu	Adverse Light Environment: A New Challenge	4162
Cornel Mihalcea, Florin Munteanu, Florin Baiceanu	Techniques and Indices for Preventive Maintenance Optimization	4028
Constantin Ionescu, Roxana Patrascu, Mihai Sandu	Increasing the Heat Supply Quality of an Existing Building Within the University POLITEHNICA of Bucharest Campus	4167

BREAK

<b>EA 2 (Electrical apparatus 2)</b>		
<b>Chairs: Radu Burlica, Maricel Adam</b>		<b>ID</b>
M. B. Micu, M. Adam, M. Andrusca, A. Dragomir, C.N. Deac	Aspects Regarding the Loads Patterns Determination from the Internal Sevicees of the Power Substations	3853
A. Dragomir, M. Adam, M. Andrusca, M. Atanasoaei, A. Miron, A. Iamandi	Aspects Regarding the Infrared Monitoring of Electrical Equipment Temperature	3893
E. Ojovanu, A. Dragomir, M. Adam, M. Andrusca, C.N. Deac, M. Cardasim, G. Mocanu	Mechanical Fault Detection by Vibration Monitoring of Electrical Equipment	3899
C.N. Deac, M. Adam, M. Andrusca, A. Dragomir, M. Micu	Supervision and Control System of an Electrical Equipment Testing Installation	3941
M. Atanasoaei, M. Adam, M. Andrusca, A. Dragomir, C.N. Deac	Effects of Solid State Current Limiter on the Power Grid	3964
M. Adam, M. Andrusca, A. Dragomir, D. Astanei, R. Burlica	Technical Condition Monitoring of Impedance Bonds using Sensors and Dedicated Device	4181

<b>PED (Power electronics and electrical drives)</b>		
<b>Chairs: Alexandru Bitoleanu, Ilie Nuca, Mihai Albu</b>		<b>ID</b>
Dan Butnicu, Alexandru Lazăr	Why Choose Polymer Electrolytic Output Capacitors for Maximum Ripple Capability and Reliability Performance within eGaN based PQL Converters	3773
Constantin Vlad Suru, Mihaela Popescu, Mihaita Linca, Adrian Stanculescu	Fuzzy Logic Controller Implementation for the Compensating Capacitor Voltage of an Indirect Current Controlled Active Filter	3797
Mihaela Popescu, Alexandru Bitoleanu, Mircea Dobriceanu, Mihail Rădulescu	Control System in Battery-Charging Regime for Autonomous Locomotives	3813
Alexandru Bitoleanu, Mihaela Popescu, Constantin Vlad Suru, Adrian Stanculescu	A New Approach in DC Circuit Design of Shunt Active Power Filters	3817
Sorin Iulian Cosman, Cristina-Adina Bilațiu, Radu-Andrei Marțiș, Claudia Steluța Marțiș, Silvan Morariu	Identifying the Propulsion System Characteristics for a Battery Electric Vehicle	3833
Marcel Nicola, Claudiu-Ionel Nicola, Marian Duță	Sensorless Control of PMSM Based on FOC Strategy and Fractional Order PI Controller	3990
Marcel Nicola, Claudiu-Ionel Nicola	Sensorless Control of PMSM Based on Fractional Order Synergetic Control	3992
Cătălin-Marian Samson, Elena Lercă, Daniel Sticea	System for study stepper motor control and clock application	4189
Ciprian Bejenar, Ciprian Afanasov	Preliminary Analysis of Full-Bridge DC-DC Power Converters with Hard-Switching Topology and Silicon Carbide (SiC) Semiconductors	4203
Ilie Nuca, Vadim Cazac, Adrian Turcanu, Marcel Burdiniuc	Development of Traction System with Six Phase Induction Motor for Urban Passenger Vehicle	4316

<b>CSA (Computer science applications in electrical engineering) + AUTO (Workshop on Trends and Challenges of Automotive Industry)+ IOT (3rd Workshop on Internet of Things)</b>		
<b>Chairs: Catalin Damian, Daniel Petrisor</b>		<b>ID</b>
Marius Dan Zbancioc, (RO), Silvia Monica Feraru	Emotion Recognition for Romanian Language Using Deep Learning with DL-CNN Convolutional Layers	3805
Sabin Banuleasa, Radu Munteanu Jr., Alexandru Rusu	Wearable IoT power consumption optimization algorithm	4100
Catalin Damian, Dragos Grosu, Lenuta Alboaie	Applying PrivateSky technologies regarding confidentiality in a wide spectrum of cloud based applications	4156
Calin Husar, Cristi Irimia, Mihail Grovu, Claudia Martis, Sorina Ciornei, Raul Nemes	Model based design of an Urban Electric Minibus	3944
Calin Husar, Mihail Grovu, Cristi Irimia, Mircea Ruba, Sorina Ciornei, Raul Nemes	Simulation of a Fuel Cell Hybrid Electric Minibus under Simcenter Amesim	3946
George-Zamfir Tiron, Marian-Silviu Poboroniuc	Benchmarking General-Purpose Neural Networks for Real-Time Pedestrian Detection	3966
Nenad Zoric, Sohail Sarang, Stefano Tennina	Wireless Communication System for River Monitoring: An Energy-based Study	4195

**FRIDAY - OCTOBER 23, 2020**

**PLENARY SESSIONS**

9.30

Anton ANDRONIC	Big sensors for the smallest particles - studying Big Bang matter at the Large Hadron Collider
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10.00

Grega Bizjak	LEDs and Measurements – How Much Light Source Influence the Measurement Results
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BREAK

**ELCOMP 1 (6th International Workshop on Electromagnetic Compatibility and Engineering in Medicine and Biology)**

10.45

**Chairs:** Octavian Postolache, Eduard Lunca

**ID**

Alexandru Salceanu, Valeriu David	Ten Years from "International Workshop on Electromagnetic Compatibility & Engineering in Medicine and Biology", First Edition - 2010, Iasi	
Natalia Ampilova, Igor Soloviev, Michail Syasko	Computer modeling the effect of weak electromagnetic field on charged particles by Unity engine	3825
Alexandru Constantin Podaru, Valeriu David	A simple method for determining the HRV parameters	3885
Ovidiu Bejenaru, Catalin Lazarescu, Marius-Vasile Ursachianu, Alexandru Salceanu	SAR Determination for Indoor, Far Field Exposure	4016
Claudia Pacurar, Adina Giurgiuman, Claudia Constantinescu, Vasile Topa, Calin Munteanu, Sergiu Andreica, Marian Gliga	High Frequency Analysis of The Influence of Yagi-Uda Antenna on The Human Head	4056
Claudia Constantinescu, Calin Munteanu, Laura Grindei, Adina Giurgiuman, Claudia Pacurar, Marian Gliga, Sergiu Andreica	High Frequency Analysis of the Vivaldi Antenna Parameters	4058

**AR 1 (Automation and robotics 1)**

10.45

**Chairs:** Dorin Popescu, Gheorghe Livint

**ID**

Victoria Toma, Mihai-Andrei Silitra, Calin Ciufudean	Real Time Weather Location Traffic System	3779
Silviu-Ioan Bejinariu, Hariton Costin, Florin Rotaru, Ramona Luca	Nature-Inspired Metaheuristics for High-Dimensional Data Clustering	3809
Vasile-Eusebiu Toader, Valentin Vlad, Mihaela Pavai	Analysis of a Secured System for Command Control	3867
Constantin Daniel Oancea	Gathering of Motion Data from an Arm	3873
Marian Abagiu, Dorin Popescu, Florin-Liviu Manta, Livia-Carmen Popescu	Use of a Deep Neural Network for Object Detection in a Mobile Robot Application	3933
Dorin Popescu, Horatiu Roibu, Florin-Liviu Manta, Ovidiu Unguritu, Marius Marian	Design of a Mobile Robot to Work in Special Environments	3935

**LIGHT (4th Workshop on Lighting: From Energy Efficiency to Light Pollution)**

10.45

**Chairs:** Grega Bizjak, Catalin Galatanu

**ID**

Elena Serea, Dorin Dumitru Lucache	Consequences of Inappropriate Use of Architectural Lighting	3777
Catalin Daniel Galatanu, Iulian Gherasim	Spatial Light Source Simulations for Near Field Reflections	4112
Cristian-Gyozo Haba, Catalin Daniel Galatanu	Wearable Device for Measurement of Exposure to Artificial Lighting	4130
Cătălin Daniel Gălățanu, Alexandru Viorel Rusu, Dorin Dumitru Lucache	Field Measurements for Street Lighting Assessment	4238
Daniel Brebenariu, Catalin Daniel Galatanu	Lighting Optimization in a Short and Straight Tunnel, by Designing With Specialized Software	4250
Daniel Brebenariu, Catalin Daniel Galatanu	Measuring Luminance with Digital Photometric Camera in Short Tunnels	4253

BREAK

**ELCOMP 2 (6th International Workshop on Electromagnetic Compatibility and Engineering in Medicine and Biology)**

12.30

**Chairs:** Paul Bechet, Eduard Lunca

**ID**

Adina Giurgiuman, Claudia Constantinescu, Claudia Pacurar, Vasile Topa, Calin Munteanu, Marian Gliga, Sergiu Andreica	The Analysis, Modelling and Comparison between Circular and Rectangular Patch Antennas	4060
Neculai Craiu, Emil Sorecau, Remus Stanca, Simona Miclaus, Paul Bechet	HF Noise Measurements Based on Software Defined Radio Dual Receiver and Two Orthogonal Inverted Vee Antennas	4104
Robert Helbet, Andrei Cristian Bechet, Vasile Monda, Paul Bechet	Low Cost System for Terrestrial Trunked Radio Signals Monitoring based on Software Defined Radio Technology and Raspberry Pi 4	4106
Marius Valerian Paulet, Alexandru Salceanu, Oana Maria Asimincesei, Constantin Dan Neagu	Electric Field in the Vicinity of High Voltage Deviation Towers	4114
Marius Valerian Paulet, Alexandru Salceanu, Silviu Ionut Ursache, Dragos Florin Bordeianu	On the Cumulative Effect of Magnetic Fields in the Deviation Zones of Overhead High Voltage Power Lines	4120
Cătălina Luca, Robert Fuior, Mădălina Dătcu, Doru Andrițoi, Călin Corciovă, Radu Ciorap	Innovative assistive system for monitoring people with Alzheimer	4165

<b>AR 2 (Automation and robotics 2) + REHAB (International Workshop on Advances in Rehabilitation Engineering Applications)</b>		
<b>Chairs: Irina Cojuhari, Marian Poboroniuc</b>		<b>ID</b>
Irina Cojuhari, Ion Fiodorov, Bartolomeu Izvooreanu, Dumitru Moraru	Synthesis of PID Controller for the Automatic Control System with Imposed Performance based on the Multi-Objective Genetic Algorithm	4191
Cătălin Dosoftoi, Vasile Horga, Ioan Doroftei, Tudor Popovici, Ștefan Custura	Simplified Mecanum Wheel Modelling using a Reduced Omni Wheel Model for Dynamic Simulation of an Omnidirectional Mobile Robot	4292
Aida Baltag, Gheorghe Livint, Alina-Georgiana Baciu	Design of Fractional Order Controllers for Wind Turbines	4295
Roman Andrei et.all	A Novel Hardware and Software Interface for a Grip Force Tracking System	4223
Cătălina Luca, Robert Fuior, Doru Andrițoi, Călin Corciovă	Intelligent glove for rehabilitation of hand movement in stroke survivor	4163

12.30

<b>IA 1 (Industry Application 1)</b>		
<b>Chairs: Horia Beleiu, Dorin Lucache</b>		<b>ID</b>
Dumitru Cernușcă, Dan Laurențiu Milici, Radu Dumitru Pentiuc, Eugen Hopulele	Research on the realization of a nitinol clutch thermocouples	3823
Rata Mihai, Rata Gabriela, Filote Constantin, Raboaca Maria Simona	Design of EV Charging Station Controlled by PLC	3919
Anca Miron, Andrei C. Czikier, Ștefan Ungureanu, Horia Gh. Beleiu	The Impact of Multiple Small PV Units on Distribution Networks. Romanian Case-study	4032
Ștefan Ungureanu, Vasile Topa, Andrei Czikier, Anca Miron, Cosmin Darab	Application of Electricity Management Strategies for Lower Balancing Costs	4034
Constantin S. Pică, Sorin G. Pavel, Horia G. Beleiu, Virgil Maier, Antoniu C. Turcu	Effects of Connecting Photovoltaic Power Plants on a Long Electrical Line	4038
Roberto Hangan, Silviu Stefanescu, Antoniu Turcu, Aurel Botezan	Study Regarding Implementation of a Monitoring and Control System for a Small Hydropower Plant	4042

BREAK

<b>ELCOMP 3 (6th International Workshop on Electromagnetic Compatibility and Engineering in Medicine and Biology)</b>		
<b>Chairs: Calin Munteanu, Eduard Lunca</b>		<b>ID</b>
Bárbara Nogueira da Costa, Octavian Postolache, John Araujo	Sustained attention detection system in learning environments	4197
Alexandru Constantin Podaru, Valeriu David	Blood pressure estimation based on synchronous ECG and PPG recording	4220
Alexandru Salceanu, Silviu Vornicu, Eduard Lunca, Marcel Istrate	Influence of High Voltage Bundle Configurations on Human Exposure	4232
Valeriu David, Ionel Pavel, Eduard Lunca	A Method for Estimating the Magnetic Fields Generated by the Overhead Power Lines	4235
Radu Ciorap, Cătălina Luca, Mariana Ciorap, Doru Andrițoi	Telerehabilitation solution for hand therapy	4301

14.15

<b>EEPE 1 (Education in electrical and power engineering)</b>		
<b>Chairs: Cristina Vataavu, Cristian Gyozo Haba</b>		<b>ID</b>
Vlad Posea, Cornel Nițu, Andrei Panu, Lenuța Alboaie, Cătălin Damian	GDPR compliant recruitment platform using smart contracts and executable choreographies	3841
Luminița Scripcariu, Petre-Daniel Mătăsaru, Florin Mocanu	Smart School Application Scenario	3915
Irwin A. Diaz-Diaz, Omar A. Dominguez-Ramirez	Strategic and Mixed Learning Methodology in Engineering	3943
Cerasela Cornelia CĂMUI, Viorel PETRE, Valentin BOICEA	Power Factor Correction: a Hands-on Introduction for Students	3994
Ursan George-Andrei, Plopa Olga, Ursan Maria	Simulation of Electrical Circuits Using Data Acquisition Boards for Online Education	4128
Elisabeta Spunei, Adrian Tănase, Diana Tănase	Informed Student – Guaranteed Success	4199

14.15

<b>IA 2 (Industry Application 2)</b>		
<b>Chairs: Radu A. Munteanu, Dorin Lucache</b>		<b>ID</b>
Constantin Vasile Ionescu, George Darie	Energy Effectiveness – New Energy Performance Indicator to Optimize the Industrial Energy Consumptions	4118
D.E. Crețu, D. Astanei, R. Burlică, O. Beniugă, D. Tesoi	The influence of NTP reactor geometry on H2O2 generation in water	4207
Radu A. Munteanu, Ovidiu-Catalin Blidar, Leon Brai, Claudiu Bălc, Dan Iudean	Study of Coils Impact for a Boost Converter Used in the Automotive Industry	4229
Corina Martineac, Pompei C. Dărab, Horia G. Beleiu, Rini Nur Hasanah	Influence of Soil Resistivity on 110 kV Substation Grounding System	4289
Cristian Barz, Zoltan Erdei, Adina Pop-Vadean, Adela Berdie, Przemyslaw Syrek, Mihaela Anamaira Lihet	EMI using in SmartHome control	4298
Vasile Imbrea, Neculai-Constantin Petrescul, Dorin Dumitru Lucache	PLC Integration in the Grid Connection of a Non-Dispatchable Renewable Energy Source	4310

BREAK

16.00

<b>IEEE ROMANIA EMC &amp; EMB</b>		
<b>Chairs: Mihaela Morega, Alexandru Morega, Valeriu David</b>		<b>ID</b>

<b>EEPE 2 (Education in electrical and power engineering)</b>		
<b>Chairs:</b> Luminita Scripcariu, Cristian Gyozo Haba		<b>ID</b>
Constantinescu-Dobra Anca, Cotiu Madalina Alexandra, Sabou Adrian	Teaching Z Generation Engineers. Using Entrepreneurship Education to Develop Soft Skills and Match Employers' Expectations	3913
Constantinescu-Dobra Anca, Cotiu Madalina Alexandra, Martis Claudia Steluta	Are Electrical Engineers Future Entrepreneurs? An Exploratory Study	3911
Laura Mihaela Lelutiu, Istók Róbert	Study of Rechargeable Batteries Using a Laboratory Teaching Platform	3931
Constantin-Cătălin Dosoftei, Andreea-Elena Cojocaru	Implementation of a Virtual Control Lab to Support Teaching in Engineering Control	4277
Dorin Lucache, Georget Gabor, Constantin-Cătălin Dosoftei	PLC Controlled Elevator for Eductonal Purposes	4313

<b>EEM (Emerging technologies for electrotechnical materials)</b>		
<b>Chairs:</b> Marius Olariu		<b>ID</b>
Laurentiu Ungureanu, Romeo Ciobanu, Cristina Schreiner, Mihaela Aradoaei, Olga Plopa, Mihaela Bajbarac	Flexible Piezo-Electric Composites for 3D-Printed Harvesters	4122
Sebastian Teodor Aradoaei, Vasile Bahrin, Mihaela Aradoaei, Mirela Alina Constantin, Lucian Alexandru Constantin	Dielectric spectroscopy analysis of composites obtained from thermoplastic with feathers flour	4124
Cosmin Iulian Contofan, George-Andrei Ursan, Maria Ursan, Olga Plopa	Correlation between concentration and particles size in order to optimize the thermal heating process by exposure of composite materials to microwave radiation	4126
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**17.30 CLOSING CONCLUSIONS AND SPEECHES**