



2022 International Conference on Electrical and Power Engineering EPE 2022

Iași, 20-22 October 2022

Technical Program



EPE 2022 Technical Program

19 October 2022

16.00 - 18.00 Roundtable - Electrical and Power Engineering
Challenges for the South-East European Region

20 October 2022

08.00 - 16.00 Participants registration
09.00 - 09.45 Official Opening
09.45 - 10.45 Plenary speaker 1
10.45 - 11.00 Coffee Break
11.00 - 12.30 Oral Sessions 1
12.30 - 14.15 Lunch Break
14.15 - 15.45 Oral Sessions 2
15.45 - 16.00 Coffee Break
16.00 - 16.40 Plenary speaker 2
16.40 - 16.45 Coffee Break
16.45 - 18.15 Oral Sessions 3
18.30 Depart for GALLA DINNER
19.00 - 23.30 Gala Dinner

21 October 2022

09.00 - 10.00 Participants registration
09.00 - 10.00 Poster Session
09.30 - 10.00 Plenary speaker

10.00 - 10.15	Coffee Break
10.15 - 11.45	Workshop & Round table
11.45 - 12.00	Coffee Break
12.00 - 13.00	Workshop/Round table
13.00 - 13.30	Closing Ceremony
13.30 - 14.00	Lunch
15.00 - 19.00	Hermeziu Winery Tasting (extra cost)

Technical Program

19 October 2022 PRELUDE

16.00 - 18.00

Roundtable - Electrical and Power Engineering Challenges for the South-East European Region (in conjunction with RSEEC2022)

Aula Magna “Carmen Sylva” of the "Gheorghe Asachi" Technical University of Iasi, Building A, 11 Carol I Blvd.

130	Power Systems Security Assessment Based on Artificial Neural Networks	Tudose, Andrei*
148	The influence of digital protection equipment on conventional current transformers dimensioning	Iamandi, Anamaria*
125	On-line monitoring of high power substations - A Romanian experience	Ionita, Irene M.*
127	The plastic deformation of the aluminum strands of the High voltage overhead lines composite conductors - Part I Why, when and how?	Florea, George A*; Florea, George
128	The plastic deformation of the aluminum strands of the High voltage overhead lines composite conductors - Part II. What else: The aluminum strand compression and the conductor knee point temperature? How to avoid or how to diminish the aluminum strand plastic deformation process?	Florea, George; Florea, George A*
135	Electrical Behavior of two Hybrid types of Insulator Proposed for Using in Heavy Pollution Areas	Vsheghanifarahani, Hamed*; Javadi, Hamid; Abdolhosseinpur, Masoud; Roustaei, Majid; Ghelichi, Faramarz
134	Evaluation of Technical Consequences of Line Arresters instead of Shield Wires on HV Overhead Transmission Lines	Vsheghanifarahani, Hamed*; Javadi, Hamid; Abdolhosseinpur, Masoud; Ghelichi, Faramarz; Loni, Mohammad
120	Maintenance Regime Modernization effects in Hydro Power Plant	Sabeel, Khursheed*
131	Modeling and Simulation of a Commercial PV/T in MATLAB/Simulink Software Environment	Pop, Teodor*; Buzduga, Corneliu; Ifrim, Cătălin Visarion; Pentiu, Radu-Dumitru; Bejenar, Ciprian
116	Solutions for Digital Interaction of a Resilient Energy Community in a Service-oriented Framework	Sanduleac, Mihai*; Ionescu, Constantin; Mandiș, Alexandru; Gropa, Victor; Efremov, Cristina; Sanduleac, Vlad

Detailed Technical Program

20 October 2022

08.00 - 16.00

Participants registration

Faculty of Electrical Engineering, Faculty Hall, Building E

09.00 - 09.45

Official Opening

Faculty of Electrical Engineering, “Dragomir Hurmuzescu” conference hall, ground floor, Building E

09.45 -10.45

Plenary speakers

Faculty of Electrical Engineering, “Dragomir Hurmuzescu” conference hall, ground floor, Building E

Chairmen: Dorin Lucache, Romeo Cristian Ciobanu (RO)

Prof. Damien GUILBERT and Prof. Hugues RAFARALAHY (FR) University of Lorraine, France	Modeling and control of alkaline and PEM electrolyzers
Prof. Davide FABIANI, (IT) University of Bologna, Italy	Piezoelectric Nanofibrous Composite Materials for Energy and Electronic Applications

10.45 - 11.00

Coffee Break

Oral sessions 1

Automation and robotics

11:00-12:30, Amphitheater E4, Building E

Chairmen: Irina Cojuhari (MD), Gheorghe Livinț (RO)

7	Automatic Gait Analysis and Classification in Video Sequences	(AR)	Bejinariu, Silviu-Ioan*; Luca, Ramona; Costin, Hariton; Rotaru, Florin; Onu, Ilie
117	Modified Polynomial Method to Synthesize a Control Algorithm for a System Model with First Order Inertia and Time Delay	(AR)	Izvoreanu, Bartolomeu; Cojuhari, Irina*; Fiodorov, Ion; Moraru, Dumitru; Secieru, Adrian; Potlog, Mihail
118	Modified Polynomial Method to Synthesize a Control Algorithm for a System with Second-Order Inertia and Time Delay	(AR)	Izvoreanu, Bartolomeu ; Secieru, Adrian; Cojuhari, Irina*; Fiodorov, Ion; Moraru, Dumitru ; Potlog, Mihail
47	Design of Hinfinity robust controllers for wind turbines based on DFIG	(AR)	Baltag, Aida*; Livint, Gheorghe; Baci, Alina; Samir, BELLARBI
143	Implementation of PID controller using Siemens PLC	(AR)	Gabor, Georgette*
138	Safety Solution Implementation for an Omnidirectional Autonomous Mobile Robot used in Logistics Systems	(AR)	Dosoftei, Constantin-Catalin*; Musteata, Razvan; Popovici, Alexandru Tudor

Electrical machines 1

11:00-12:30, Amphitheater E1, Building E

Chairmen: Elisabeta Spunei (RO), Adrian Munteanu (RO)

14	Case Studies Related to the Optimization of a Surface Mounted Permanent Magnets Synchronous Generator Applied for a Small Hydrokinetic Turbine	(EM)	Constantin, Alexandru-Ionel*; Tudor, Emil S; Marin, Dorian; Dumitru, Constantin; Mihaiescu, Mihai	ONLINE
38	Operation analysis of a three-phase induction motor with deep rotor bars and variable parameters	(EM)	Deleanu, Sorin*; Stanculescu, Marilena; Iordache, Mihai; Ng, Gary	
54	Design and Performances Evaluation of a PMSG used for Pico-Power Plant – a case study	(EM)	Fodorean, Daniel*; Derban, Simina	
56	Electromagnetic Analysis and Experimental Validation of an IPMSM	(EM)	Bilatiu, Cristina A*	
61	Electromagnetic Performances Evaluation of High Speed Synchronous Reluctance Machines for Turbo Charger Applications	(EM)	Derban, Maria-Simina*; Popa, Dan-Cristian; Fodorean, Daniel	
8	Extending the life of transformer units through maintenance based on insulation revitalization	(EM)	Nitu, Maria-Cristina; Aciu, Ancuta-Mihaela*; Ștefan, Dan	ONLINE

Electromagnetic field and electrical circuits 1

11:00-12:30, Amphitheater E2, Building E

Chairmen: Mihai Iordache (RO), Camelia Petrescu (RO)

4	Limitations of the improved Ossart model applied to Non-Oriented electrical steel sheets	(EFEC)	Petrescu, Lucian *; Cazacu, Emil; Petrescu, Maria-Catalina
5	Power Quality Issues Generated by the Nonlinear Resonance Occurrence in Electric Networks	(EFEC)	Cazacu, Emil*; Petrescu, Lucian
90	Analysis and optimal design of a wireless power transfer system for electrical vehicles	(EFEC)	Giurgiuman, Adina*; Pacurar, Claudia; Constantinescu, Claudia; Munteanu, Calin; Gliga, Marian Razvan; Andreica, Sergiu Iulian
34	High Gain Patch Antenna Array for Biomedical Applications	(EFEC)	Vasile, Monda E*
44	SPICE model of a real Zener diode	(EFEC)	Staniloiu, Marius Florin I*

Metrology and Measurement Systems

11:00-12:30, Amphitheater E3, Building E

Chairmen: Cristian Foşalău (RO), Cristian Zet (RO)

20	Conversion of Phase Shift into DC Voltage	(MMS)	Oancea, Constantin Daniel*
35	Experimental Measurements of Radar Absorbing Materials in Semi-anechoic Chambers	(MMS)	Vasile, Monda E*
13	Extracting and determining respiratory variation by processing force sensor and PPG data	(MMS)	Iftode, Adrian A*; Fosalau, Cristian
15	Improving the performance of gas sensors using metal oxide nanotubes with oval structure	(MMS)	Hogas, Ionel*; Fosalau, Cristian
87	Application for processing non-electric biological signals	(MMS)	Fuior, Robert; Corciova, Calin; Salceanu, Alexandru*
3	Using IoT in smart agriculture: study about practical realizations and testing in a real environment	(MMS)	Cornei, Doru*; Fosalau, Cristian

Power Systems 1

11:00-12:30, “Dragomir Hurmuzescu” conference hall, Building E

Chairmen: Mihai Sănduleac (RO), Mihai Gavrilăş (RO)

2	Dynamic Rating Technology Approach for Real-Time Monitoring of Overhead Transmission Lines	(PS)	Ionita, Irene M.*; Moldoveanu, Constantin; Popescu, Dan; Iacobici, Nicolae Luca	ONLINE
1	Innovative integrated system for risk and lifetime management of transformers in high voltage power substations	(PS)	Ionita, Irene M.*; Moldoveanu, Constantin	ONLINE
50	Metaheuristic Approaches for Distributed Generation Placement Optimization in Electrical Grids - A comparison between PSO, Tiki-Taka and Archimedes Optimization Algorithms	(PS)	Ivanov, Ovidiu P*; Neagu, Bogdan Constantin; Toma, Nicusor Constantin; Grigoras, Gheorghe; Ghilan, Paul-Daniel; Gavrilăş, Mihai	
80	Impact of the Electric Vehicle Sector’s Development on Romania’s National Power System	(PS)	Machidon, Dragos*; Istrate, Marcel	
83	Voltage Control Strategy Using the Rule-Based Reasoning in LV Distribution Networks with PV Penetration Integrating OLTC-Fitted Transformer	(PS)	Noroc, Livia; Grigoras, Gheorghe*; Chelaru, Ecaterina; Dandea, Vasilica; Neagu, Bogdan Constantin	
101	Clustering-Using Data Mining-based Application to Identify the Hourly Loading Patterns of the Generation Units from the Hydropower Plants	(PS)	Garbea, Razvan; Grigoras, Gheorghe*	

12.30 - 14.15

Lunch Break – TUIASI Student Restaurant, „Tudor Vladimirescu” Campus

Oral sessions 2

Electrical machines 2

14:15-15:45, Amphitheater E1, Building E

Chairmen: Claudia Marţiş (RO), Leonard Livădaru (RO)

11	Influence of Brush Positioning on Separately Excited DC Motor Operation	(EM)	Elisabeta, Spunei*; Ion, Piroi; Florina, Piroi
93	Comparative analysis of distributed winding and fractional slot winding on high power synchronous hydro-generators	(EM)	Virlan, Bogdan*; Simion, Alecsandru; Munteanu, Adrian; Livădaru, Leonard; Nacu, Ionut

147	Comparative Analysis of Fractional Slot Concentrated Wound Permanent Magnet Synchronous Machines with Different Stator Grain Oriented Electric Steel Lamination Topologies	(EM)	Nastas, Ion I*; Munteanu, Adrian; Virlan, Bogdan; Simion, Alecsandru; Livadaru, Leonard; Nacu, Ionut
10	Manufacturing of induction motors with Super Premium Efficiency	(EM)	Ion, Catalin P*; Peter, Ioan
149	Research on the influence of the nominal current on the torque and respectively on the efficiency for the BLDC motor with variable geometry	(EM)	Murgoci, Dragos*; Adam, Maricel
126	Six-phase Fractional Slot Concentrated Winding Permanent Magnet Synchronous Motor with Reduced Torque Ripple	(EM)	Munteanu, Adrian*

Computer science applications in electrical engineering

14:15-15:45, Amphitheater E4, Building E

Chairmen: Cătălin Damian (RO), Marius Brînzilă (RO)

110	Implementation of a remote controlled photovoltaic nano-grid - final version	(CSA)	Pintilie, Lucian Nicolae*; Petrovici, Cătălin; Szekely, Norbert ; Iuoraş, Adrian - Mihai; Gros, Ioana - Cornelia; Chiuzbăian, Dan	ONLINE
52	Low-cost laboratory scanner unit: Design and Testing for hyperspectral imaging system	(CSA)	Rapolti, Laszlo*; Holonec, Rodica C; Munteanu, Calin; Reman, Robert-Daniel D; Ardelean, Madalin Ionut	
28	The peculiarities of the steady state modes of medium voltage cables grid at various neutral grounding and single-phase to ground fault.	(CSA)	Bosneaga, Valeriu*; Suslov, Victor; Stratan, Ion; Dobrea, Ina	
70	A Solution for an Industrial Automation and SCADA System	(CSA)	Tcaciuc, Simona-Anda V.*	
25	Framework for distribution network modelling and fault simulation using MATLAB	(CSA)	Şolea, Claudiu M*; Toader, Dumitru; Vinţan, Maria	
142	hBag - smart assistant for healthy shopping	(CSA)	Dodon, Mihaela; Damian, Catalin*	

Electromagnetic field and electrical circuits 2

14:15-15:45, Amphitheater E2, Building E

Chairmen: Călin Munteanu (RO), Emil Cazacu (RO)

49	The Use of Thévenin, Norton and Hybrid Equivalent Circuits in the Analysis and Polarization of Nonlinear Analog Circuits	(EFEC)	Grib, Alexandru R*; Staniloiu, Marius Florin I; Iordache, Mihai; Grib, Mihaela; Popescu, Horatiu; Laudatu, Ovidiu	
29	Wireless Power Transfer Systems Optimization	(EFEC)	Stanculescu, Marilena*; Iordache, Mihai; Niculae, Dragos; Bobaru, Lavinia; Deleanu, Sorin; Drosu, Oana	
139	Analysis of the thermal and electrical parameters of the supply system of an HTS superconducting electromagnet	(EFEC)	Dumitru, George*; Morega, Alexandru; Dobrin, Ion; Enache, Dan; Nedelcu, Adrian	ONLINE
55	Study of Conduction Emissions of Household Appliances	(EFEC)	Gliga, Marian Razvan*; Munteanu, Calin; Andreica, Sergiu Iulian; Constantinescu, Claudia; Giurgiuman, Adina; Pacurar, Claudia; Denisa-Ioana, Morar I	
53	Study of the Electromagnetic Field Generated by Wireless Communication Systems	(EFEC)	Andreica, Sergiu Iulian*; Munteanu, Calin; Gliga, Marian Razvan; Pacurar, Claudia; Giurgiuman, Adina; Constantinescu, Claudia	

Renewable Energy 1

14:15-15:45, Amphitheater E3, Building E

Chairmen: Mihai Sănduleac (RO), Dragoş Machidon (RO)

103	Web tool for evaluating photovoltaic opportunities for potential prosumers	(RE)	Salceanu, Alexandru*; Popovici, Catalin; Roman (Nechifor), Madalina; Paulet, Marius Valerian V.	
151	Web-Application for Assisting Solar Storage Design	(RE)	Roman(Nechifor), Madalina; Salceanu, Alexandru*; Paulet, Marius Valerian V.	
104	Experimental stand for wind energy conversion in electricity	(RE)	Radu Virgil, Joian R*; Munteanu, Calin; Manciu, Iosif Dorin	ONLINE
122	Fault detection device for PV array using the Page-Hinkley test	(RE)	Andrianajaina, Todizara *; Razafimahefa, Tsivalalaina David; Abdourahman Youssouf, Dahir ; Rakotoarijaona , Raonirivo N'Iharinjanahary; Sambatra, Eric Jean Roy; Lucache, Dorin Dumitru	
136	Challenges and Opportunities of Agri-PV systems in a Clean Energy Transition for Rural Areas	(RE)	Efremov, Cristina; Sanduleac, Mihai*; Braga, Dumitru	

Power Systems 2

14:15-15:45, “Dragomir Hurmuzescu” conference hall, Building E

Chairmen: Gheorghe Grigoraş (RO), Ovidiu Ivanov (RO)

111	Improvement of adaptive single-phase automatic reclosing in extra-high voltage lines	(PS)	Makhmudov , Karomatullo ; Beryozkina, Svetlana; Krasilnikova, Tatyana ; Safaraliev Murodbek; Zicmane, Inga*; Ghulomzoda , Anvari	ONLINE
41	Protected Supply of Control Circuit for Standalone IoT Applications in Microgrids	(PS)	Damian, Ioan C*; Iantoc, Andreea Georgiana; Damian, Mihaela	
121	Optimal Reactive Power Dispatch Considering Load Variation in Distribution Networks using an Improved Sine-Cosine Algorithm	(PS)	Sidea, Dorian*; Picioroaga, Irina I; Tudose, Andrei; Podar, Catalin; Anton, Nicolae; Bulac, Constantin	
141	Prosumer concept considering the building energy efficiency situation	(PS)	Mihaela, Nastase*; Mihai, Gavrilas	
152	Modelling and Simulation of Virtual Power Plants	(PS)	Dobrin, Bogdan Petru; TOMA, Lucian*; Farhang, Hooman; Istrate, Roxana-Alexandra; Anton, Nicolae; Sanduleac, Mihai	
154	Impact of Mechanical Inertia on the Power System Stability	(PS)	Istrate, Roxana-Alexandra; Toma, Lucian*; Dobrin, Bogdan-Petru	

15.45 - 16.00

Coffee Break

16.00 -16.40

Plenary speakers 2

Faculty of Electrical, Energy and Applied Informatics Engineering, “Dragomir Hurmuzescu” conference hall, ground floor, Building E

Chairman: Cristian Gyozo Haba (RO)

Prof. Ramakrishnan Raja (USA) Halla Mechatronics, Michigan, USA	Inductance and Position Estimation of Permanent Magnet Synchronous Machine using PWM excitation	ONLINE
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16.40 - 16.45 Short Break

Oral sessions 3

Electrical apparatus

16:45-18:15, Amphitheater E1, Building E

Chairmen: Bogdan Hnatiuc (RO), Maricel Adam (RO)

67	Evaluation and comparison of the performance of air conditioning systems from fully electric cars and cars with a thermal engine	(EA)	Cosman, Sorin Iulian*; Claudia Steluța, Marțiș
57	Detection of electric arc faults by Arc Fault Detection Devices	(EA)	Hnatiuc, Bogdan E.; Hnatiuc, Mihaela E.; Turcu, Fanel; Claudiu, Tiron*
124	Monitoring and Diagnosis of Electrical Equipment by Infrared Thermography	(EA)	Dragomir, Alin; Adam, Maricel; Antohi, Silviu-Marian; Pantiru, Alexandru; Atănăsoaei, Marian*
167	Foundation structural resistance calculation of SF6 high-voltage circuit breaker	(EA)	Pantiru, Alexandru; Dragomir, Alin; Adam, Maricel; Antohi, Silviu-Marian*
30	The Influence of TCSC Devices on Distance Protection Tripping Characteristic	(EA)	Atănăsoaei, Marian*; Adam, Maricel; Andrusca, Mihai; Dragomir, Alin; Deac, Cosmin-Nistor
175	Neuro-fuzzy system for technical resilience assessment	(EA)	Adrian Vilcu, Ionut Herghiligiu, Marius Pislaru

Industry applications

16:45-18:15, Amphitheater E4

Chairmen: Mihai Rață (RO), Ion Cătălin Petrea (RO)

79	Low-Cost Power Quality System and Automatic Classification Disturbances Using SVM and DWT Analysis	(IA)	NICOLA, Claudiu I*; Nicola, Marcel; Sacerdotianu, Dumitru	ONLINE
99	Predictive Method for Determining the Operating Condition of Big-Blaster Air Cannons Using Automatic Classification of Critical Discharge of Compressed Air	(IA)	TEIȘANU, Florin; Nicola, Marcel; NICOLA, Claudiu I*	ONLINE
69	CAM Control Application with SIMATIC S7-1500T and SINAMICS S210	(IA)	RATA, Mihai*; RATA, Gabriela; Bejenar, Ciprian	
73	Assessment of HV Power Supply Efficiency in Plasma Activated Water Production	(IA)	Cretu, Daniel E*; Rusu, Catalin Ciprian; ASTANEI, Dragos; Burlica, Radu; Beniuga, Oana	
102	Influence of Water Injection Technique in an Argon NTP System Used for PAW Generation	(IA)	Cretu, Daniel E*; Pellerin, Stephane; Burlica, Radu; Wartel, Maxime; ASTANEI, Dragos; Faubert, Francois	

Renewable Energy 2

16:45-18:15, Amphitheater E3, Building E

Chairmen: Ioan Șerban (RO), Beniugă Răzvan (RO)

22	Analytical Performance Investigation of a Commercial Solar Air Heater	(RE)	Ifrim, Cătălin Visarion*; Buzduga, Corneliu; Pop, Teodor; Bejenar, Ciprian	ONLINE
74	Internal Parameters Extraction Algorithm for Mono and Polycrystalline Photovoltaic Panels Using Single-Diode Model	(RE)	Pomazan, Cătălin-Constantin*	
48	Energy Management System for EV Charging Stations Powered by Renewable Energy Sources	(RE)	Ciceu, Cosmin; Serban, Ioan*	
119	Experimental research and results on the wear of photovoltaic panels	(RE)	Cosmin, Ciocea A*	
26	Analysis the performance of photovoltaic systems in the Maramures region	(RE)	Barz, Cristian*; Barz, Cristian	
76	Building Services Engineering in the Assessment Process for European Energy Award	(RE)	Fodorean, Sergiu*; Beu, Dorin; Buzdugan, Mircea; Ciugudeanu, Calin; Galatanu, Catalin	

Power systems 3

16:45-18:15, “Dragomir Hurmuzescu” conference hall, Building E

Chairmen: Lucian Toma (RO), Bogdan Neagu (RO)

162	Reliability estimation for smart metering units in a Energy Distribution Branch with prosumers	(PS)	Cristian-Dragos Dumitru , Adrian Gligor, Ilie Vlasa	ONLINE
77	Automatic Redundant Power Supply System for the Dynamic Braking System, Used for the Quick and Controlled Stopping of Wound-Rotor Asynchronous Power Motors, Specific to the High Power Testing Laboratories	(PS)	Nicola, Marcel*; Enache, Sorin; Ocoleanu, Daniel Constantin; Salceanu, Cristian-Eugeniu; Nicola, Claudiu I	ONLINE
123	Performance analysis of metaheuristic algorithms for optimal reactive power control in microgrids	(PS)	Burlacu, Mihai*; Navrapescu, Valentin	ONLINE
98	Numerical Simulations and Experimental Tests for the Analysis of Capacitive Load Switching in Power Circuits	(PS)	Salceanu, Cristian-Eugeniu ; Nicola, Marcel; Nicola, Claudiu I*; Ocoleanu, Daniel Constantin ; Enache, Sorin	

165	Electricity losses optimization in distribution networks from the perspective of integration on large scale of renewable energy resources	(PS)	Gorea, Cristian; Bica, Dorin; Dumitru, Cristian-Dragos*; Vlasa, Ilie; Radu, Porumb; Chiorean, Dragos-Lucian
31	Medium Voltage Network Modeling for the Integration of Renewable Sources	(PS)	Baloi, Felicia Ionela; Pana, Adrian; Baloi, Alexandru; Molnar-Matei, Florin*

19:00-23:30

Gala Dinner

Motel Bucium Restaurant

21 October 2022

9:00-10:00

Participants registration

9:00-10:00

Poster Session

09:00-10:10, Faculty Hall, Building E

Chairmen: Adina Giurgiuman (RO), Cătălin Constantin Dosoitei (RO), Lia Aciu (RO), Adrian Pană (RO)

62	A Hardware Optimized Storage and Retrieval System for Smart Warehousing Applications	(AR)	Reman, Robert-Daniel D*; Rapolti, Laszlo; Ardelean, Madalin Ionut; Holonec, Rodica C; Munteanu, Calin; Topa, Vasile
158	Electrical Fault Detection for Industry 4.0 using Fusion deep Learning Algorithm	(CSA)	Rajawat, Anand Singh ; Goyal, S B; Bedi, Pradeep; Mihaltan, Traian Candin; Neagu, Bogdan Constantin; Maria Simona, Raboaca; Verma, Chaman*
159	Visual Cryptography and Blockchain for Protecting Against Phishing Attacks on Electronic Voting Systems	(CSA)	Rajawat, Anand Singh; Goyal, S B; Bedi, Pradeep; Malik, Shilpa; Neagu, Bogdan Constantin; Maria Simona, Raboaca; Verma, Chaman*
82	The shielding performance analysis for different types of compo site materials	(EFEC)	viorica, voicu; Dina, Livia-Andreea*; Nicolae, Petre-Marian; Mihai-Madalin , Negoescu
132	Contributions to the Optimization of the Electrical Power Distribution in the Station Centru From Cluj, in the	(IA)	Pavel, Tudor; Micu, Dan Doru; Pavel, Sorin*; Beleiu, Horia G; Ungureanu, Stefan

	Context of Updating Its Medium Voltage Network		
140	Photovoltaics as an Energetic Solution for a Commercial Building	(IA)	Beleiu, Horia G*; Stefanescu, Siviu; Botezan, Aurel
21	Reactive power compensation at industrial consumers: Romanian study case	(IA)	Miron, Anca*
156	A Low-Cost Industrial Automation System Using IoT and Cloud Computing	(IA)	Ravi, Renjith; Neagu, Bogdan Constantin; Goyal, S. B.; Maria Simona, Raboaca; Verma, Chaman*
107	Opto-Guard: Non-invasive System of Continuous User Assurance of Keeping the Optimal Distance of the Eyes from the Computer Screen	(IA)	Serea, Elena*; Temneanu, Marinel Costel; donciu, codrin
85	Video Method for Estimating the Apparel Worn Size	(IA)	Serea, Elena*
108	Video distance measurement method based on the weighted average of the depth intervals centers	(MMS)	Pavel, Ionel I*
100	Pyhon Technology Used To Facilitate Measuring Activity Performed By Students In Laboratory	(MMS)	Branzila, Marius*
75	Calibration of temperature indicators	(MMS)	Sârbu, Gabriel Constantin*; Zet, Cristian
89	Influence of Household Tools in Regional Configuration of Earthquake Early Warning Systems	(MMS)	Serea, Elena*; Temneanu, Marinel Costel; donciu, codrin; Berdan, Marian
71	Influence of MV Networks' Distributed Neutral Grounding on the Homopolar Directional Current Protection	(PS)	Marin, Ion*; Ursu, Doru; Ciontu, Marian; Mircea, Paul Mihai I; Rusinaru, Denisa; Mircea, Ion
157	Monitoring and Control of Electrical Sub Station Using IoT and Cloud	(IoT)	Ravi, Renjith; Goyal, S. B.; Neagu, Bogdan Constantin; Maria Simona, Raboaca; Verma, Chaman*; Kustov, Vladimir
150	Controlled Switching Taking Into Account the Standard Deviation of Switching Time	(QRS)	Băiceanu, Florin C*; Nemes, Ciprian-Mircea M; MUNTEANU, Florin; Cosmin, Acscinte C
168	The influence of electrical equipment structural elements on their wireless communications	(EA)	Antohi, Silviu-Marian; Adam, Maricel; Pantiru, Alexandru; Dragomir, Alin; Marian Atanasoaei*
11	Influence of Brush Positioning on Separately Excited DC Motor Operation	(EM)	Elisabeta, Spunei*; Ion, Piroi; Florina, Piroi
39	Fundamental issue for wind power systems operating at variable wind	(RE)	Sorandaru, Ciprian*; Ancuti, Codruta; Musuroi, Sorin; Svoboda, Marcus; Muller, Valentin ; Edu, Ronald; Geza, Mihai

	speeds: the dependence of the optimal angular speed on the wind speed		
174	Direct Current Motor Speed Adjustment Via Indirect Self-Adjusting Regulator	(EM)	Vasile Bahrin, Sebastian Aradoaei, Mihaita Anton*

09.30 -10.00

Plenary speaker

Faculty of Electrical Engineering, “Dragomir Hurmuzescu” conference hall, ground floor, Building E

Chairman: Romeo Cristian Ciobanu (RO)

Prof. Alexandru Sover (DE) Ansbach University of Applied Sciences, Germany	The use of laser technology for recycling hybrid electronic waste
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10.00 - 10.15

Coffee Break

10.15 -11.45

Oral sessions 4

Education in electrical and power engineering (EEPE)

10.15 -11.45 “Dragomir Hurmuzescu” conference hall

Chairmen: Gabriela Rață, Cristian Gyozo Haba

33	Electrical Engineering E-learning Education during COVID-19 Pandemic: Pedagogical and Psychological Aspects	(EEPE)	Aciu, Lia Elena*	
86	Assessment of Distance Learning/Teaching Techniques in Engineering	(EEPE)	Diaz-Diaz, Irwin Allen A*	ONLINE
68	Power Quality Indicators Monitoring With SENTRON PAC4200	(EEPE)	Rață, Gabriela*	
24	A Remote Laboratory for Linear Electronics Based on the Red Pitaya Board	(EEPE)	Stan, Ciprian M*	ONLINE

9	Improving Online Teaching by Short-Time Activities	(EEPE)	Matasaru, Petre-Daniel T*; Scripcariu, Luminita S	
19	Comparative Analysis of Evaluation of the Quality Criteria of Educational Program in Field of Measuring Technology	(EEPE)	Velychko, Oleh*	ONLINE
18	Group Expert Evaluation of the Quality Criteria of Educational Program in Field of Measuring Technology	(EEPE)	Velychko, Oleh*	ONLINE
163	Learning PLC-based Automation by Using an Educational Elevator	(EEPE)	Gabor,Georgel, Lucache, Dorin Dumitru, Dosoftei, Constantin-Catalin	

Power electronics and electrical drives (PED 1)

10.15 -11.45 Amphitheater E3, Building E

Chairmen: Iulian Birou, Gabriel Chiriac

113	Analysis and Practical Implementation of an Independent Double Buck Interleaved Converter	(PED)	Pacuraru, Alexandru Madalin*; Suci, Vasile Mihai; Pintilie, Lucian Nicolae; Salcu, Sorin Ionut; Cristian, Andrei Bogdan ; Teodosescu , Petre	
114	Practical Implementation of an Electronic Controlled Actuator for Micro Wind Turbine Overspeed Protection	(PED)	Pacuraru, Alexandru Madalin*; Salcu , Sorin Ionut ; Iuoraş, Adrian - Mihai; Breban, Stefan; Mathe, Zsolt; Teodosescu , Petre	
155	Modernization Solutions for the Trolleybus Traction Stations in the Chisinau Municipality	(PED)	Cazac, Vadim*	
106	Modeling and Analysis of Five-Level Reduced Switch Inverter Based Bidirectional Isolated DC-DC Converter	(PED)	Ekici, Elanur*; Koroglu, Tahsin	ONLINE
88	The Effect of Temperature Changes on Semiconductor Material Efficiency Under Load	(PED)	AYDIN, Macit; AYDIN, MACİT*; Tuztasi, Fatih	ONLINE

Quality, reliability and safety (QRS)

10.15 -11.45 Amphitheater E1, Building E

Chairmen: Sorina Costinaş, Ciprian Nemeş

105	The influence of VSC - HVDC links on AC networks. Mathematical modeling and analysis	(QRS)	Andrei, Stan M*; Costinas, Sorina; Tristiu, Ion; Ciausiu, Florin
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78	Improved Partial Discharge Signals Analysis Using Discrete Wavelet Transform	(QRS)	NICOARĂ, Tania; Nicola, Marcel; NICOLA, Claudiu I*; PĂTRU, Ion; SAFTA, Denisa; Aciu, Ancuta-Mihaela
12	Adequacy evaluation of power generating systems taking into account the power reserves requirements	(QRS)	Iliescu, Ionut*; Nemes, Ciprian-Mircea M
146	Impact of Distributed Generation on the Performace of Electrical Networks	(QRS)	Cosmin, Acsinte C*; Nemes, Ciprian-Mircea M; Băiceanu, Florin C

Oral sessions 5

Power electronics and electrical drives (PED 2)

10.15 -11.45 Amphitheater E3, Building E

Chairmen: Ilie Nucă, Mihai Albu

6	Preliminary Model of a Method for Selectively Switch Controllable Voltage Sources in Power Supply Applications	PED	Bejenar, Ciprian*; RATA, Mihai	ONLINE
16	Design of an Electronic Direct Drive Automotive Differential using Axial Flux PSMS with Sensorless Direct Torque and Flux Control	PED	Topor, Marcel; Deaconu, Sorin Ioan*	
42	A Full State Feedback Approach to Designing Digital Cascade Control with PI Voltage and Peak Current Loops	PED	Neacsu, Dorin*; Neacsu, Cristian	ONLINE
63	Analysis of the Performances of Battery Electric Vehicles using ADVISOR	PED	Chiver, Olivian*	

WORKSHOPS & ROUNDTABLES

8th International Workshop with Industry on Electromagnetic Properties of Materials and Dedicated Applications (WIEPMD 1)

10.15 -11.45, SC INTELECTRO IASI SRL, Bacalu Street, No. 3

Chairmen: Alexandru Sover, Romeo Cristian Ciobanu

64	A non-enzymatic chronoamperometric glucose sensor based on Screen-Printed Carbon Electrode (SPCE) modified with	(WIEPMD)	Trandabat, Florentin*; arcire, alexandru; Saridache, Adrian ; Gheorghian, Gianina ; Hogas, Ionel ;
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	Fe ₂ O ₃ magnetic nanoparticles via physical vapour deposition (PVD)		Patrascu, Georgiana ; Schreiner, Cristina
97	Composites with Nano Conductive Channels Architecture Uniformly Distributed Through the Thickness of the Material and Oriented in the Magnetic Field (WIEPMDA)	(WIEPMD)	Aradoaei, Mihaela*, Lucaci Andreea Maria, Aradoaei Sebastian, Schreiner Cristina Mihaela, Nastasache Maria
129	Compression Of Acquired Data In Order To Make Transmission And Processing More Efficient	(WIEPMD)	Pintilei Madalina Ancuta, Ursu Ileana, Aradoaei Sebastian, Schreiner Cristina Mihaela, Aradoaei Mihaela, Olteanu Alin
137	Continuous Improvement in Education Based on Deming Model in Worldwide Context	(WIEPMD)	Scarlatache, Vlad-Andrei A*; Aradoaei, Sebastian T; Olariu, Marius Andrei; Filip, Tudor Alexandru; Scarlatache, Florina
96	Obtaining nanocomposite films with predefined thermal conductivity, with controlled anisotropy	(WIEPMD)	Aradoaei Mihaela*, Lucaci Andreea Maria, Aradoaei Sebastian, Schreiner Cristina, Ciobanu Romeo Cristian
160	Piezoelectric Nanofibrous Composite Materials for Energy and Electronic Applications	(WIEPMD)	Fabiani Davide*, Ciobanu Romeo Cristian, Aradoaei Mihaela

7th International Workshop on Electromagnetic Compatibility and Engineering in Medicine and Biology (ECEMB)

10.15 -11.45 Amphitheater E2

Chairmen: Paul Bechet, Eduard Lunca

65	SNR measurement of ionospheric channels for availability evaluation under NVIS propagation	(ECEMB)	Sorecau, Emil*; Sorecau, Mirela; Craiu, Neculai ; Sarbu, Annamaria; Bechet, Paul
115	Low frequency magnetic field survey in different areas of a hospital's environment	(ECEMB)	Pavel, Ionel*; David, Valeriu; Roman, Marina-Georgiana; Bordas, Alexandru-Marian
161	Gait Rehabilitation in Virtual Reality Serious Game Interactive Scenarios	(ECEMB)	Beatriz dos Santos Gonçalves, Octavian Postolache, José Miguel Dias Pereira
169	Memory Training Interface for Elderly based on Mobile APP	(ECEMB)	Andre Baptista, Octavian Postolache, Diana Mendes, Elisabeth Reis Dalia Nogueira
173	Assessment of Extremely Low-Frequency Magnetic Field from Multiple High-Voltage Overhead Power Lines in Parallel Configuration	(ECEMB)	Vornicu, Silviu; Lunca, Eduard; Neagu, Bogdan Constantin; Baiceanu, Florin Constantin

172	Measurement and Numerical Simulation of the Low-Frequency Electric Field Generated by an Overhead Power Line	(ECEMB)	Lunca, Eduard; Vornicu, Silviu; Pavel, Ionel; Andrusca, Mihai
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Roundtable (International Workshop on) Advances in Rehabilitation Engineering Applications (REHAB)

10.15 -11.45 Amphitheater E4, Building E

Chairmen: Marian-Silviu Poboroniuc, Danut-Constantin Irimia

95	Extending the Control's Number in Motor Imagery Based Brain-Computer Interfaces Applications	(REHAB)	Placinta, Silvia N*; Poboroniuc, Marian S; Irimia, Danut C; Mitocaru, Alexandru
171	Brain-Computer Interface movement control for humanoid robot	(REHAB)	Alexandru Mitocaru, Poboroniuc, Marian S; Irimia, Danut C; Placinta, Silvia, Baciu Alina
Practical App.	BCI Technics and Practical Applications with RecoveriX, g.Nautilus and g.Unicorn	(REHAB)	Poboroniuc, Marian S; Irimia, Danut C; Mitocaru, Alexandru; Placinta, Silvia

11.45 - 12.00

Coffee Break

8th International Workshop with Industry on Electromagnetic Properties of Materials and Dedicated Applications (WIEPMD 2)

12.00 - 13.00, SC INTELECTRO IASI SRL, Bacalu Street, No. 3

Chairmen: Davide Fabiani, Mihaela Aradoaei

59	Design and modeling considerations for developing a millimolar Oxalic Acid detection sensor based on screen-printed carbon electrode and methilbenzenpirol	(WIEPMD)	Trandabat, Florentin*; Arcire, Alexandru; Aradoaei, Mihaela; Plopa, Olga; Ciobanu, Romeo; Mosneagu (Andrei) , Mona
17	Dielectric parameters of circulating tumor cells – in search of the most suitable buffer solution	(WIEPMD)	Schreiner, Thomas Gabriel*; Schreiner, Oliver Daniel; Adam, Maricel
145	Technical analysis regarding the implementation of a building management system	(WIEPMD)	Ursu Ileana, Olteanu Alin, Morosanu Vlad, Schreiner Cristina, Aradoaei, Mihaela
84	The use of laser technology for recycling hybrid electronic	(WIEPMD)	Sover Alexandru*, Markus Zink, T. Vogel, Ciobanu Romeo Cristian
164	ISense - Parkinsons symptoms monitoring module based on IMU sensors	(WIEPMD)	Saridache Adrian*, Schreiner Daniel Oliver, Schreiner Thomas Gabriel, Trandabat Alexandru Florentin

Roundtable IEEE EMC and EMB

12.00 - 13.00, **ONLINE** (the invitation will come by e-mail)

Chairmen: Mihaela Morega, Alexandru Morega

4th Workshop on Lighting: From Energy Efficiency to Light Pollution

12.00 - 13.00, Amphitheater E4

Chairmen: Catalin Galatanu, Dorin Lucache

133	Portable Device for Measuring Lighting Characteristics in Working Spaces	(LIGHT)	Cristian-Gyozo Haba
153	The Angular Sensitivity Characteristic of a Photometer – an Ignored Parame	(LIGHT)	Catalin Galatanu
176	Reliability, Unreliability and Failure Rate of a Hybrid Lighting System	(LIGHT)	Dan Iudean, Adina Miha, Valentin Farcaș, Radu A. Munteanu

13.00 - 13.30

CLOSING SPEECHES

13.30 - 14.30

LUNCH

14.30 – 19.00

Hermeziu Winery Tasting (extra cost)