

ICATE 2018 – Conference program

<i>Location</i>	University of Craiova, Faculty of Law and Social Sciences Calea Bucuresti 107D, Craiova			
<i>Hours</i>	Thursday, October 4			
9:00-10:00	Registration			
10:00-10:30	Opening ceremony / location Aula Magna			
10:30-11:00	Coffee Break / location Aula Magna lobby			
11:00-13:00	Plenary session – Keynote Speeches / location Aula Magna			
13:00-14:00	Lunch /location Emma Est Hotel, Calea Bucuresti 82A, Craiova			
	Workshops and Regular sessions			
	Room A	Room B	Room C	Room D
15:00-17:00	PES (1) Paper ID:71;73;75;120;124;129;189 Chairs: Constantin Bulac Leonardo-Geo Manescu	EMD (1) Paper ID:60;61;72;101;104;128;136;146 Chairs: Virgiliu Fireteanu Sorin Enache	CS Paper ID: 134;152;153;182;185 Chairs: Dragos Niculae Mihai Iordache	CSYS Paper ID: 103;114;115;160;170;187 Chairs: Teodor Pana Dorin Popescu
17:00-17:30	Coffee Break			
17:30-19:30	PES (2) Paper ID:109;111;116;155;161;163;164 Chairs: Denisa Rusinaru Horia Balan	ECEMB Paper ID: 46;70;123;151;174;175;184 Chairs: Alexandru Morega Andrei Marinescu	IAPP (1) Paper ID: 47;62;67;77;79;80;81;188 Chairs: Elena Helerea Daniela Popescu	Workshop Paper ID: W01...W06 "A Century of Energetics in Romania" Chairs: Petre-Marian Nicolae Victor Vaida
	Friday, October 5			
09:00-11:00	EETS Paper ID: 54;55;57;63;89;131;156;181 Chairs: Ioan Popa Alexandru Tudosie	EMD (2) Paper ID: 130;135;159;162;165;167;168;173 Chairs: Remus Pusca Sergiu Ivanov	IAPP (2) Paper ID: 45;107;121;127;137;148;169;171 Chairs: Virginia Ivanov Lucian Mandache	
11:00-11:30	Coffee Break			
11:30-13:30	PES (3) Paper ID: 91;93;95;98;147;176 Chairs: Silvia Maria Diga Mihai Mircea	PE / Paper ID: 86;106;154;186 EEE / Paper ID: 40;145 Chairs: Mihaela Popescu Iustinian Neaca	AMEE / Paper ID: 100;112;177;178;179;180 MG / Paper ID: 78;143 Chairs: Dana Constantinescu Paul Popescu	
13:30-14:30	Lunch /location Emma Est Hotel, Calea Bucuresti 82A, Craiova			
15:00	Departure to Cetate – Culture Port for Gala Dinner. Meeting point: Emma Est Hotel, Calea Bucuresti 82A, Craiova			
17:00-23:00	Gala Dinner			
	Saturday, October 6			
10:00-12:00	Research facilities in Electrical Engineering – Guided tour			
12:00-12:30	Closing Ceremony, Aula Marius Preda, Faculty of Electrical Engineering			

Plenary session

- P01 Horia Hedesiú – Technical University of Cluj-Napoca: *Real Time Simulation and Testing of Complex Systems. Overview and Trends*
- P02 Elena Helerea – “Transilvania” University of Brasov: *Electrical insulation lifetime assessment and prediction*
- P03 Gheorghe Manolea – University of Craiova: *Milestones in electrical engineering in Oltenia: education, research, production*

Regular sessions

Paper ID CS – Circuits and Systems

- 134 Razvan Asanache, Mihai IORDACHE, Dragos Niculae, Marilena Stănculescu, Maria Lavinia Bobaru, Victor Bucata - The computation of the kQ-product and properties of wireless power transfer systems
- 152 Maria Cristina Nițu, Marian Duță - Calculation of Surges Transmitted Between Transformer Windings Using the Coupled Circuit Model
- 153 Sorin Deleanu, Mihai Iordache, Dragos Niculae, Bogdan Venescu, Mihaela Cristina Turcu, Neculai Galan - The Overvoltage Distribution across Transformer Windings in presence of Long Feeders
- 182 Andrei Marinescu, Ionel Dumbrava - AC Resistance of Inductive Coupler with Pitch Coils for Contactless Power Transfer
- 185 Stănculescu Marilena, Sîrbu Ioana-Gabriela, Mandache Lucian, Niculae Dragoș, Voinea Marius, Bucată Victor, Iordache Mihai - About Pathologic Linear Circuits With Inconsistent Initial Conditions

Paper ID MG – Magnetics

- 78 Alin-Iulian Dolan - Improvement of static force characteristic of AC Electromagnet Using DOE and FEM
- 143 Daniela Vesa, Marian Greconici, Dumitru Toader, Constantin Blaj, Ildiko Tatai - About the force localization exerted by the magnetic field on the ferrofluids. The Quincke's effect

Paper ID CSYS – Control Systems

- 103 Beke-Szikszay Tibor-László, Corneliu Marinescu, Dănilă Adrian - Software Control Method for a Solar Tracking System
- 114 Cristian Ioan Hoarcă, Florentina Magda Enescu - On the energy efficiency of standalone fuel cell/renewable hybrid power sources Part I: Simulation results for constant load profile without RES power
- 115 Cristian Ioan Hoarcă, Florentina Magda Enescu - On the energy efficiency of standalone fuel cell/renewable hybrid power sources Part II: Simulation results for variable load profile with different renewable energy sources profiles (RES)
- 160 Nadia Stoicuta, Olimpiu Stoicuta, Teodor Pana - On-line Electrical Parameters Estimation of an Induction Motor
- 170 Horatiu Roibu, Dorin Popescu, Marian-Marcel Abagiu, Nicu-Geeorge Bizdoaca - Human-Machine Interfaces for Robotic System Control
- 187 Alexandru Bitoleanu, Mihaela Popescu, Vlad Constantin Suru, Florin Alexandru Teodorescu - Synthesis of the Battery Charging System of a Stand-Alone Electric Locomotive Using the Traction Converter

Paper ID PES – Power and Energy Systems (1)

- 71 Silvia-Maria Diga, Nicolae Diga, Adelaida-Mihaela Duinea - Current issues in the management by dispatching of the operating regime and maneuvering with long electric lines in the national power system
- 73 Liviu Ruieneanu - Increasing the flexibility of trigeneration systems for a larger presence of renewables in the energy mix
- 75 Denisa Rusinaru, Leonardo Geo Manescu, Adrian Cojoaca, Miron Alba, Constantin Bulac, Daniela Rosca - Grid Integration of the Small Generation Units in LV Distribution Networks
- 120 Flaviu Dilertea, Flavius-Dan Şurianu - Transient Response of Synchronous Generator to Faults on the Evacuation Overhead Line
- 124 Ammar AL-Gizi, Mohammed AL-Saadi, Sarab AL-Chlahawi, Aurelian Craciunescu, Mustafa Abbas Fadel - Experimental Installation of Photovoltaic MPPT Controller Using Arduino Board
- 129 Ioan-Dragoş Deaconu, Marilena Stănculescu, Aurel Ionuţ Chirilă, Valentin Năvrănescu, Horia Andrei - On Automatic Transfer Switch System Security
- 189 Carmen Maria Negrila, Cristian Bratu, Denisa Ruşinaru, Leonardo-Geo Mănescu - Prosumer Investment in Renewable Energy Units. An Economic Analysis

PES – Power and Energy Systems (2)

- 109 Horia Balan, Horatiu Dacian Laslo, Ioan Berinde - Modeling Three-Phase Short-Circuits in Grids Connected to Windfarms
- 111 Horia Balan, Horaţiu Dacian Laslo, Traian Varodi - Testing Digital Relays through Secondary Currents Injection
- 116 Mircea-Ion Buzdugan, Radu A. Munteanu - Influence of Harmonics on Heat Recovery Equipment
- 155 Nicu Constandache, Dorel M. Stanescu, Mihai Sanduleac, Carmen Stanescu, Ion Tristiu, Alexandru Mandis - Smart Meters, PMU and PQ data analysis in Active Distribution Grids – Case Studies in MV networks
- 161 Nadia Stoicuta, Olimpiu Stoicuta - The Analyze of the Electrical Energy Production in Romania by Categories of Power Plants
- 163 Catalin Petrea Ion, Corneliu Marinescu - Small wind turbine selection for urban environment operation
- 164 Dumitru Sacerdoţianu, Marcel Nicola, Claudiu-Ionel Nicola, Florica Lăzărescu - Research on the Continuous Monitoring of the Sag of Overhead Electricity Transmission Cables Based on the Measurement of their Slope

PES – Power and Energy Systems (3)

- 91 Paul-Mihai Mircea, Marian Ciontu, Ion Marin, Ion Mircea, Denisa Rusinaru, Gabriel Cosmin Buzatu, Florinel Popescu - The influence of neutral treatment system type on the efficiency / performance of the MV networks
- 93 Paul-Mihai Mircea, Marian Ciontu, Ion Marin, Lucian Mandache, Leonardo Geo Manescu, Doru Ursu, Cristian Bratu - Influence of the single-phase fault place on the neutral treatment system parameters in MV networks
- 95 Mihaela Ilie, Sorin Ilie, Ionuţ Murareţu - Applying Game Theory Economics to Clean Renewable Energy Source Implementation in Urban Areas
- 98 Cosmin – Gabriel Buzatu, Radu-Cristian Dinu, Cristian Bratu, Felicia-Elena Stan Ivan - Using the Visual Basic Program for Modeling the Heat Transfer Through Glazed Building Elements
- 147 Chioncel Cristian Paul, Lazar Meda Alexandra, Spunei Elisabeta, Tirian Gelu Ovidiu - Determination of the optimal operational energy zones and the mathematical models for wind power plants
- 176 Marcel Nicola, Claudiu-Ionel Nicola, Sebastian Popescu, Dumitru Sacerdoţianu, Marian Duţă - Power Quality Analysis System Based on LabVIEW Real-Time and Reconfigurable FPGA Modules Using Wavelet Transform

Paper ID**EMD – Electrical Machines and Drives (1)**

- 60 Monica-Adela Enache, Aurel Campeanu, Ion Vlad, Sorin Enache - Use of Numerical Methods in Computation of Operation Characteristics for Brushless Direct Current Motors
- 61 Monica-Adela Enache, Aurel Campeanu, Sorin Enache, Ion Vlad - Testing Stand for Low-Power Electrical Machines
- 72 Raluca-Cristina Presură, Marian-Ştefan Nicolae, Ion Vlad - Using Numerical Methods for Establishing the Performances of Low Power Asynchronous Motors
- 101 Virgiliu Fireteanu, Alexandru-Ionel Constantin, Assam Zorig, Aissa Chouder - Impact of the Stator Short-circuit, Rotor Broken Bar and Eccentricity Faults on Rotor Force for Loaded and No-load Induction Motors Operation
- 104 Svilen Rachev, Lyubomir Dimitrov, Konstantinos Karakoulidis, Ivaylo D. Ivanov, Cornelia-Victoria Anghel Drugarin - Electric Power Losses of Frequency Controlled Electric Drive with High-Voltage Induction Motor
- 128 Florin Ravigan, Laurentiu Alboteanu, Marius Dumitriu, Ionut Zglimbea - BLDC Controller for two-wheel vehicles
- 136 Gabriel Nicolae Popa, Corina Maria Diniş, Sorin Ioan Deaconu, Iosif Popa - On Currents Asymmetry Protection For Three-Phase Low Voltage Induction Motors
- 146 Marius Alexandru Drancă, Mihai Chirca, Sorin Iulian Cosman, Ştefan Breban - Design Analysis of a Permanent Magnet Brushless Generator with Two Counter Rotating Rotors for Small-Wind Turbine

EMD – Electrical Machines and Drives (2)

- 130 Berzan Vladimir, Ermurachi Iurie, Ivanov Sergiu - SST Medium Voltage Transformer with Bidirectional Power Transmission for Electric Railway Transport
- 135 Gabriela Dana Petropol Serb, Ion Petropol Serb - Designing a Graphical User Interface with Matlab to select the ideal covering coefficient of the polar pitch for a salient pole synchronous generator calculation
- 159 Yelda Veli, Alexandru M. Morega, Lucian Pîslaru-Dănescu, Mihaela Morega - Numerical Modeling of a Flyback Converter with Different Magnetic Media, for Micro-Power Controllers
- 162 Sorin Deleanu, Mihai Iordache, Dragos Niculae, Marilena Stanculescu, Mihai Dogaru, Neculai Galan - Dynamic Operation of High Power Synchronous Generator in Asynchronous Regime or encountering Three-Phase Shortcircuit
- 165 Marius Dranca, Mihai Chirca, Stefan Breban - Design evaluation of several electric machines topologies for propulsion of a railway vehicle
- 167 Younes Azzoug, Arezki Menacer, Raphaël Romary, Rémus Pusca, Tarek Ameid, Abdelkarim Ammar - Fault Tolerant Control for Speed Sensor Failure in Induction Motor Drive based on Direct Torque Control and Adaptive Stator Flux Observer
- 168 Alexandru Dalea, Mircea Ignat, Sorin Deleanu, Mihai Iordache, Neculai Galan - Optimal Operation of the Rotary Magnetostrictive Motor
- 173 Adrian Vintila, Fevronia-Despina Roman - Brush Lifting Systems for Wound Rotor Induction Motors

Paper ID PE – Power Electronics

- 86 Mihaela Popescu, Alexandru Bitoleanu, Mircea Dobriceanu, Florin Alexandru Teodorescu - On the AC-Connecting of a System for Active Filtering and Regeneration in Active DC-Traction Substations
- 106 Amir Bogza, Dan Floricau, Lucian Parvulescu - Selection of the Power Components for a Phase-Shifted Full-Bridge Converter with Current Doubler
- 154 Diana-Raluca Biba, Sorin Muşuroi, Marcus Svoboda - Powertrain 48V Power Supply Proposal and Safety Validation Voltage Levels for BLDC Motor Driver ASIC
- 186 Mihăiță Lincă, Constantin Vlad Suru, Cristina Alexandra Preda - Indirect Current Control Algorithm Implementation for an Active Filtering System Using Constant Switching Frequency Hysteresis Controllers

Paper ID ECEMB – Electromagnetic Compatibility and Engineering in Medicine and Biology

- 46 Hussain Alnamir - Occupational Exposure to Power Frequency Magnetic Fields in Intensive Care Unit Rooms
- 70 Ardeleanu Mircea-Emilian, Nicoleanu Paul, Stănescu Dan-Gabriel, Pişleag Denis - New Analysis Regarding Electromagnetic Field Emissions of a Wireless Device
- 123 Bouleanu Iulian, Miclaus Simona, Bechet Andrei Cristian, Bechet Paul, Annamaria Sarbu, Helbet Robert - Assesment of the Near Field Level in the Vicinity of an Inverted V Antenna used for HF emission
- 151 Viorica Voicu, Livia-Andreea Dina, Petre-Marian Nicolae, Relu Adrian Aipu, Ion Pătru, Paul-Adrian Nicoleanu - Modeling the Electromagnetic Field Distribution in a Shielded Enclosure Lined with Radio-Frequency Absorbers
- 174 Andrei Macovei, Alexandru Boitan, Bogdan Trip, Vlad Butnariu, Georgiana Roşu, Simona Halunga - Detection of electromagnetic emissions transmitted on the power line through electrical conduction
- 175 Alexandra Idita, Georgiana Roşu, Alexandru Boitan, Vlad Butnariu, Bogdan Trip, Octavian Baltag - Study of shielding effectiveness on spurious emissions of information systems by means of metallic and carbon powder screens
- 184 Cristian Győző Haba, Liviu Breniuc, Romeo Cristian Ciobanu, Ioan Tudosa - Development of a wireless glove based on RFID Sensor

Paper ID IAPP – Industrial Applications (1)

- 47 Mitică Iustinian Neacă - Simulink Model for Resistive Tubular Heater
- 62 Gheorghe-Eugen Subtirelu - Advanced System for Testing of Three-Phase Induction Machines
- 67 Constantin Florin Ocoleanu, Ioan Popa - A new approach to determine heat transfer coefficient of crimped connections
- 77 Laurentiu Alboteanu, Gheorghe Manolea, Florin Ravigan - Automatic sorting and handling system
- 79 Adrian Cernaianu, Daniela Popescu, Corina Cernaianu, Marius Ciurezu - Studies on the determination of process parameter variation at dry monodisc braking
- 80 Adrian Cernaianu, Corina Cernaianu, Daniela Popescu, Dragos Tutunea - Studies on the cooling systems for the production of electricity through Seebeck effect with TEG elements
- 81 Daniel Popescu, Marian Popescu, Corina Cernaianu, Daniela Popescu - Regarding The Structural Analysis Of Silicone Rubber Obtained From Recycling Used Composite Electric Isolators
- 188 Lambert Pierrat, Elena Helerea, Livia Sangeorzan - Statistical and Physical Approaches on the Initial Failure Rate of High Voltage Power Transformers

IAPP – Industrial Applications (2)

- 45 Filip Niculescu, Adrian Săvescu, Claudia Borzea - Analogue flow control of a network of centrifugal air compressors
- 107 Alexandre De Bernardinis, Roger Reynaud, Cyrille Beuto Yakam, Zeineb Chabrak, Hamid Ben Ahmed, Richard Lallemand, Juliette Kauv - Supercapacitors Aging Study: Models Theoretical Analysis and Attempt to Physical Correlation related to Applied Cycles for Transport Application
- 121 Anca Purcaru, Dorina Purcaru, Ioan-Mircea Gordan, Marian-Ștefan Nicolae - Electrical Signal Data Acquisition and Recording Customized System, with High Sampling Rate, for Data Analysis Optimization of Three-Phase Power Supply Consumers
- 127 Bogdan Liviu Protea, Cristian Muscai, Valentin Navrapescu, Elisabeta Spunei, Ion Piroi, Florina Piroi - Computer Assisted Equipment Selection for Components of Electric Panels
- 137 Corina Maria Diniș, Gabriel Nicolae Popa - Automation of a Pneumatic Cement Transport Installation Using PLC
- 148 Ion DOBRIN, Dan Enache, Nicolae Stancu, Andrei Dobrin, Iuliu Popovici, Alexandru M. Morega, Mihaela Morega - Conceptual Model of a Variable Gap Magnet for a GeV Electron Spectrometer
- 169 Lucian Nicolae Pintilie, Ioana Cornelia Gros, Vasile Mihai Suciu, Florin Roman - Multifunctional Socket for Smart Grid Applications using Ethernet over Power Lines and USB over IP technologies
- 171 Virginia Ivanov, Maria Brojboiu, Sergiu Ivanov - Diagnosis with Analytic Model of a Rectifier for Faults on the Load Side

Paper ID

EEE – Environment Engineering and Equipment

- 40 Fausto Bozzini, Paul Gabriel Anoaica - Electric Energy Reduction On Terraced House With Storage Battery Photovoltaic Plant - Real Case
- 145 Nicolae Boteanu, Gabriela Dana Petropol Serb - Integrated System of Water Engineering for Smart Residences

Paper ID

EETS – Electrical Engineering in Transportation Systems

- 54 Jenica-Ileana Corcau, Liviu Dinca, Adrian Hurezeanu - Power Management on Board on HAPS
- 55 Jenica-Ileana Corcau, Liviu Dinca, Adrian Hurezeanu - Power Converters for a HAPS Power Source Model
- 57 Cuman Dionis, Dinca Liviu, Corcau Jenica-Ileana - Study of Dynamic Stability a Cannard Configuartion UAV
- 63 Daniel Cristian Cismaru - Energy Efficient Train Operation using Simulated Annealing Algorithm and SIMULINK model
- 89 Alexandru-Nicolae Tudosie - Injection System for an Aircraft Jet Engine with Coolant Injection into the Combustor
- 131 Elisabeta Spunei, Ion Piroi, Florina Piroi - LED and Incandescence Lamps in Railroad Repetitive Light Signals: A Comparative Performance Analysis
- 156 Elisabeta Spunei, Ion Piroi, Cristian Muscai, Florina Piroi, Cristian Paul Chioncel, Protea Bogdan - Computer Assisted Diagnosis of CED-CR2 Installations: Part II
- 181 Alexandru-Nicolae Tudosie - Engine Speed Control Unit for an Aircraft Jet Engine with Coolant Injection into the Combustor

Paper ID**AMEE – Applied Mathematics in Electrical Engineering**

- 100 Adela Ionescu, Florian Munteanu, Raluca Efrem - On Feedback Controlling of a Smooth Version of Chua Dynamical System
- 112 Florian Munteanu, Adela Ionescu - A Note on the Behavior of the Lü Dynamical System in a Slightly Simplified Version
- 177 Marcela Popescu, Paul Popescu - Fast movements and jerk mechanics
- 178 Marcela Popescu, Paul Popescu, Ileana-Diana Nicolae, Marian-Stefan Nicolae, Radu-Florin Marinescu, Petre-Marian Nicolae - A Jerk Model With Friction for the Speed Produced by an Induction Motor Drive System
- 179 Dana Constantinescu - Two-time scale differentiable dynamical systems with applications in engineering
- 180 Iulian Petrisor, Dana Constantinescu - Electron diffusion in a sheared magnetic field and a stochastic electrostatic field revisited

WORKSHOP**A Century of Energetics in Romania**

- W01 Victor Vaida: *A Century of Energetics in Romania*
- W02 Ionel Ilie, Laviniu Danciu: *The thermal power plants in Oltenia, the pillars of the Romanian energetics*
- W03 Gheorghe Manolea: *Seven decades of academic studies in Electrotechnics at University of Craiova*
- W04 Petre-Marian Nicolae: *Doctoral Studies and Scientific Research at the Faculty of Electrotechnics / Electrical Engineering from University of Craiova*
- W05 Mihai Neațu, Cristian Chiper: *History of electricity transmission and distribution in Oltenia*
- W06 Eugen Butoarcă: *Electricity distribution in Oltenia. Vision to the future*