Full Program

Thursday, 23 May 2013

8:00-9:00	**REGISTRATION**
	Registration (Hall EA)
9:00-9:30	**Welcome to the 8th edition of the Symposium on Advanced Topics in Electrical Engineering - Opening Session** (EA002 Amphitheater)
9:30-10:00	**Coffee break** (Hall EA)
10:00-10:30	**RENAULT - ELECTRIC VEHICLE** (Hall EA)
10:30-12:30	**Plenary Session** (EA002 Amphitheater) *Chair:*Prof. Radu DOBRESCU, Prof. Petru NOŢINGHER *EDU 4 - Sensing and Actuation: A New Paradigm in Teaching* Nathan IDA *MATEL 5 - Measurement Techniques for the Monitoring of Electrostatic Processes* Lucien DĂSCĂLESCU *EMB 0 - An Overview of M-Health Medical Video Communication Systems* Constantinos S. PATTICHIS
12:30-14:30	**Lunch break**
14:30-15:30	**Poster Session #1: ELMAD, ELTECH, EMB&EMC, POWEL, MPHYS, SIMOP, VI** (EA) *Chair:*Prof. Andrei MARINESCU, Prof. Hariton COSTIN, Prof. Constantin GHIŢĂ, A.Prof. Vasile MANOLIU, A.Prof. Emil CAZACU, A.Prof. Simona MICLĂUŞ

ELMAD P1 - The Impact of the Electrical Machines on the Environment
Daniel NECULA; Nicolae VASILE; Mihail Florin STAN

ELMAD P2 - Finite Element Analysis of a Low Speed Permanent Magnets Synchronous Generator with Direct Drive
Mihail POPESCU; Andreea MITULEŢ; Rares CHIHAIA; Sergiu NICOLAE; Adrian NEDELCU; Gabriela OPRINA

ELMAD P3 - Optimization of Asynchronous Motor Characteristics Used for Mining Excavator
Ion VLAD; Aurel CAMPEANU; Sorin ENACHE; Monica ENACHE

ELMAD P4 - Method and Device of Synchronization for Determination of Squirrel Cage Asynchronous Motors Parameters
Sorin ENACHE; Aurel CAMPEANU; Ion VLAD; Monica-Adela ENACHE

ELMAD P5 - Analysis of Dynamical Processes of Small Power Induction Machines
Marius NICOLAESCU; Aurel CAMPEANU

ELMAD P6 - Petri Net versus Ladder Diagram for Controlling an Automation Process
Valentin NAVRAPESCU; Ioan Dragos DEACONU; Aurel Ionut CHIRILA; Anca-Simona DEACONU

ELMAD P7 - Parameters Determination for the Induction Machine Mathematical Model, Taking into Account Saturation and Skin Effect
Ion-Daniel ILINA

ELMAD P8 - Aspects Regarding the Application of Electric Generators to Wind Energy Conversion Using Counter Rotating Turbines
Mihail POPESCU; Gabriela OPRINA; Andreea MITULEŢ; Sergiu NICOLAE; Rares CHIHAIA; Adrian NEDELCU; Mihai MIHĂIESCU; Marius MIU; Dorian MARIN

ELMAD P9 - Study of a Skewed Rotor Cage Synchronous Reluctance Motor Using Finite Element Analysis
Ovidiu DABIJA; Alecsandru SIMION; Leonard LIVADARU; Nicolae Daniel IRIMIA; Sorin VLASCEANU

ELMAD P10 - Diagnosis of Rolling Bearings Faults in Electric Machines through Stray Magnetic Flux Monitoring
Ciprian HARLIŞCA; Lorand SZABÓ; Lucia FROSINI; Andrea ALBINI

ELMAD P11 - Analytical Model for predicting displacements in Permanent Magnet Synchronous Machine
Andrei-Toader FILIP; Radu-Petru HANGIU; Claudia-Steluţa MARŢIŞ; Karoly-Agoston BIRO

ELTECH P1 - Statistic Control of a Tribocharging Process for Granular Materials
Gabriela BUDA; Adrian SAMUILA; Lucien DASCALESCU

EMB P1 - The Challenge of Teaching Electronic Hardware for Today's Medical Engineering Students
Sever PASCA

EMB P2 - Low-dose 1GHz Exposure in Controlled Conditions for the Study of Cellular Effects of In Vitro Irradiated Blood
Simona MICLAUS; Cora IFTODE; Mircea COLCERIU

EMB P3 - Graphical Interface that Interprets the Moments Collected from the Contact Between the Stump and Soket
Mariana ROTARIU; Marius TURNEA; Dragos AROTARITEI; Mihai ILEA

EMB P4 - Integration of a Pletysmographic Sensor for Pulse Measurements in a ZigBee Medical Network
Cristina MARGHESCU; Mihaela PANTAZICA; Sever PASCA

EMB P5 - An WBAN-ECG Approach for Real-time Long-term Monitorning
Marius Corneliu ROSU; Sever PASCA

EMB P6 - Elements of Risk Assessment in Medical Equipment
Calin CORCIOVA; Doru ANDRITOI; Radu CIORAP

EMB P7 - Analysis of the Activation of Spinal Nerves During Magnetic Stimulation of the Lumbar Area

Laura DARABANT; Mihaela CRETU; Claudiu ACIU
EMB P8 - Fall Detection System for Elderly with GSM Communication and GPS Localization
Mihail DUMITRACHE; Sever PASCA
EMB P9 - Thermographic Studies in Vivo and in Vitro for Detection of Tumor Structures Using Microwave Radiometry
Silvana OJICA; Octavian BALTAG
EMB P10 - Predictive Maintenance Application for Health Technology Management
Doru ANDRITOI; Catalina LUCA; Calin CORCIOVA; Radu CIORAP
EMB P11 - Assessment of the Ventricular-Arterial Coupling in Obese Patients with Normal Ejection Fraction
Vasile MANOLIU; Cristina Maria STĂNESCU
EMB P12 - An Improved Stimuli System for Brain-Computer Interface Applications
Irina-Emilia NICOLAE
EMB P13 - Experimental Trials Concerning the Simulation of a Heart-generated Biomagnetic Signal
Octavian BALTAG; Miuta Carmina RAU
EMB P14 - Thrombotic Complications of Mechanical Heart Valves: an Experimental and Theoretical Study
Yan LI; Rajeev Kumar NALLAMOTHU; Dan RAFIROIU
EMB P15 - Assessment of the Electric Field Generated by Multilayered Coils during MS
Mihaela CREŢU; Radu CIUPA; Traian CREŢU
EMC P1 - Capacitive coupling interference phenomena between three PCB's placed in a metallic box
Alina Elena DUMITRU (RADU); Roxana ROŞCA (IONIŢĂ)
EMC P2 - Voltage Sags and Total Harmonic Distortion Monitoring in Power Systems. A case study
Niculai STANCIU; Dorel STANESCU; Petru POSTOLACHE; Willibald SZABO
EMC P3 - Motor Cable Electric Parameter Effects on the Overvoltage Phenomenon in Inverter Driven Motors
Ioan ŢILEA; Calin MUNTEANU
EMC P4 - A Novel ESD Protection Structure Used to Enhance the Safety of the MOSFET Integrated Circuitry
Dumitru Paul BICLEANU; Ana-Maria NICUTA; Alexandru SALCEANU
MPHYS P1 - Numerical Simulation of a Precision Electromagnetic Bending-Mode Cantilever Microactuator
Alexandru M. MOREGA; Nicolae TANASE; Marius POPA; Mihaela MOREGA; Jean Bogdan DUMITRU
MPHYS P2 - Numerical Simulation of an Adaptive Magnetic Field Source in Magnetic Drug Targeted Transport
Alexandru M. MOREGA; Cristina SAVASTRU; Mihaela MOREGA
POWEL P1 - Analysis of Switching in an AC Hybrid Contactor
Adrian MARIN; Mihai Octavian POPESCU
POWEL P2 - The Automation of a Sustainable Billboard Management System
Andrei BULGARU
POWEL P3 - Performance Analysis of Slope and Frequency Modulated Carrier PWM Methods for Grid Connected Converters
Stefan George ROSU; Constantin RADOI; Mihail TEODORESCU; Andrei SAVU; Radu Iustin BOJOI
SIMOP P1 - Computer Aided Dimensioning of the Electrostatic Precipitators for Energy Blocks
Silvia-Maria DIGA; Ioana-Gabriela SIRBU; Nicolae DIGA
SIMOP P2 - Modeling Photovoltaic Arrays with MPPT Perturb & Observe Algorithm
Marin-Leonard FLOREA; Adrian BALTATANU
SIMOP P3 - The Influence of the DG Sources in the Optimal Operation of the Electrical Distribution Systems

Florina SCARLATACHE; Gheorghe GRIGORAS

SIMOP P4 - Energy Losses Estimation in Electrical Distribution Networks with a Decision Trees-based Algorithm
Gheorghe GRIGORAS; Florina SCARLATACHE

SIMOP P5 - A Recognition System of Components from a Production Line Using Neuronal Networks
Corina SĂVULESCU

SIMOP P6 - Study of Three-phase Bridge Rectifier Diagnosis Based on Output Voltage and Current Analysis
Mariana IORGULESCU

SIMOP P7 - Study of Impact of Wind Power Penetration on Frequency Stabilization in Multi-area Power System
Hitesh MATHUR; Leandro BRASIL FURTADO LEITE; Houria SIGUERDIDJANE; Yogesh BHATESHVAR

SIMOP P8 - Petri Net Modelling for Hybrid Systems Control. Application for a Multicellular Converter
Bogdan Cristian FLOREA

SIMOP P9 - Mathematical Modeling and Simulation for Keloid Scars Formation From The Posthetic Blunt Socket
Marius TURNEA; Mariana ROTARIU; Dragos AROTĂRIŢEI

VI P1 - Thermal Comfort Specific Conditions in Vehicles and Real-Time Calculation of PMW and PPD Thermal Comfort Indices in Labview Programming Environment
Ana-Maria LOVIN; Stefan SILION; Ana-Maria NICUTA

15:30-16:00 **Coffee break** (Hall EA)

16:00-18:15

Room #1	Room #2	Room #3	Room #4	Room #5	Room #6
ELMAD I - Electrical Machines and Drives *Chair:*Prof. Valentin NĂVRĂPESCU, Dr. Mihai CISTELECAN *ELMAD 1 - The Control of Transmissibility and Mechanical Impedance Using Electrodynamic Actuators* Mihaela Andreea MITIU; Daniel Constantin COMEAGA	**MPHYS & ELTECH - Multiphysics & Electrotechnologies** *Chair:*Prof. Nathan IDA, Prof. Lucien DĂSCĂLESCU, A.Prof. Tiberiu TUDORACHE *MPHYS 1 - Interaction Between the Free Surface and the Vortical Structures Developed in a Turbulent Flow Around a Cylinder* Nicoleta Octavia TĂNASE; Diana BROBOANĂ; Corneliu BĂLAN *MPHYS 2 - Influence of Duct Geometry on Achard Turbine*	**SIMOP I - Simulation and Optimization** *Chair:*Prof. Alexandru BITOLEANU, Prof. Daniel IOAN *SIMOP 8 - Advanced Software System for Optimization of Car Parking Services in Urban Area* Emil Mihai DIACONU; Horia Leonard ANDREI; Dan	**POWEL & CIT - Power Electronics & Communications and Information Technology** *Chair:*Prof. Victor CROITORU, Prof. Dan FLORICĂU *POWEL 1 - Comparative Analysis of the Perturb-and-Observe and Incremental Conductance MPPT Methods* Ioan Viorel BANU; Razvan BENIUGA; Marcel ISTRATE *POWEL 2 - Study of Energetic*	**EMB & EMC - Engineering in Medicine and Biology & Electromagnetic Compatibility** *Chair:*Prof. Constantinos PATTICHIS, Prof. Mihaela MOREGA, Prof. Radu CIUPA Cloud Computing for Medical Imaging, Daniel Mocanu, Ph.D., Project Manager, Biotronics3D Ltd, London (UK) *Cloud Computing for Medical Imaging* Daniel MOCANU	**VI - Virtual Instrumentation** *Chair:*Prof. Sever PAŞCA, Prof. Costin CEPIŞCĂ *VI 4 - Short Circuit Current Amplitude Estimation using Virtual Instrumentation* Constantin-Daniel OANCEA; Dan OLARU *VI 1 - Virtual Tool for Circuit Breakers Performance Evaluation* Constantin Daniel OANCEA *VI 2 - Testing of PV Module Efficiency in*

ELMAD 2 - Cogging Torque Investigation in Permanent Magnet Synchronous Motor Used for Electrical Vehicles
Steliana Valentina UNCUŢA; Leonard MELCESCU; Mircea COVRIG

ELMAD 3 - Education in Energy Engineering: Student-Researcher Collaboration
Krisztina LEBAN; Patrycja BECZKOWSKA; Ewen RITCHIE

ELMAD 4 - Direct Drive TFPM Wind Generator Analytical Design Optimised For Minimum Active Mass Usage
Florin NICA; Krisztina LEBAN; Ewen RITCHIE

ELMAD 5 - Effects of the Efficiency
Sanda-Carmen GEORGESCU; Andrei-Mugur GEORGESCU; Costin Ioan COSOIU; Sorina COSTINAS

MPHYS 3 - Design and Fabrication of a 5T NbTi Solenoid Magnet Cooled by a Closed-Cycle G-M Cryocooler
Ion DOBRIN; Alexandru M. MOREGA; Adrian NEDELCU; Mihaela MOREGA

MPHYS 4 - A Parametric Study of Lumped Circuit Parameters of a Miniature Planar Spiral Transformer
Jean Bogdan DUMITRU; Alexandru M. MOREGA; Lucian PISLARU-DANESCU; Mihaela MOREGA

ELTECH 1 - Finite Element Analysis of Transverse Flux Induction Heating of Moving Magnetic Steel Sheets
Virgiliu FIRETEANU; Philippe ROEHR

ELTECH 2 - On the Experimental Setup Based on Eddy Current Meant to Metallic Parts Identification
Maria BROJBOIU; Lucian MANDACHE; Virginia IVANOV

Constantin PUCHIANU; Gabriel PREDUSCA

SIMOP 1 - Design and Performance of a ZnO Device to Reduce Transient Recovery Voltage
Wilker AZEVÊDO; Washington NEVES; Damásio FERNANDES Jr.; Ricardo SOARES

SIMOP 3 - Analysis and Optimal Design of Matching Inductance for Induction Heating System with Voltage Inverter
Mihaela POPESCU; Alexandru BITOLEANU; Mircea DOBRICEANU

SIMOP 4 - Aspects of Metrological Calibration of Power Quality Analyzers

Performances of a Power Static Converter with Current-source and Parallel Resonance Inverter for Induction Heating Applications
Constantin Vlad SURU; Eugen SUBŢIRELU; Mihăiță LINCĂ

POWEL 3 - New Simulink Control Block for Single Phased Shunt Active Power Filters
George ADAM; Andreea ZBANT (ADAM); Gheorghe LIVINT

POWEL 4 - New Hybrid Multilevel Inverters for High-Current Applications
Dan FLORICAU

POWEL 5 - DSP Based Vector Control System for Permanent Magnet Motors. Part I: Algorithm Description
Dumitru STANCIU; Mihail Stefan TEODORESCU; Catalin ARGHIR

POWEL 6 - DSP Based Vector Control System for Permanent Magnet

EMB 1 -New Technologies for Arterial Blood Pressure Monitoring
Mihai CHETAN

EMB 2 - Radiation Safety Integrated System for Patients Investigated by Radiological Imaging Methods
Lidia DOBRESCU; Silviu STANCIU

EMB 3 - Atrial Fibrillation Onset Prediction Using Variability of ECG Signals
Hariton COSTIN; Cristian ROTARIU; Alexandru PĂSĂRICĂ

EMB 4 - Modeling of Neuromuscular Blockade in General Anesthesia
Ramona HODREA; Ioan NASCU; Radu MORAR; Horatiu VASIAN

EMB 6 - A Study About Feature Extraction for Stress Detection
Ionut Vlad BORNOIU; Ovidiu GRIGORE

EMC 1 - On the Possibility of Using Weather Forecast to Predict Corona Naval Conditions
Ovidiu CRISTEA

VI 3 - Enhanced Data Integration for LabVIEW Laboratory Systems
Adriana OLTEANU; Grigore STAMATESCU; Anca Daniela IONITA; Valentin SGARCIU

VI 5 - Power Quality Monitoring Systems for Smart Grid Networks
Sorin Dan GRIGORESCU; Octavian Mihai GHITA; Costin CEPISCA; Adela VINTEA

VI 6 - Virtual Instrumentation Based Laboratory for Batteries Testing
Sorin Dan GRIGORESCU; Costin CEPIŞCĂ; Valentin CIMPOERU

VI 7 - Compensating Dynamics of Impedance Haptic Devices Using Neural Networks
Octavian MELINTE; Radu I. MUNTEANU; Alexandru I. GAL; Luige VLĂDĂREANU

VI 8 - Modeling and Monitoring Aspects of MOP-Type Drive

Short-Circuit Faults in the Stator Winding of Induction Motors and Fault Detection through the Magnetic Field Harmonics
Alexandru-Ionel CONSTANTIN; Virgiliu FIRETEANU; Vincent LECONTE

ELMAD 6 - Numerical Optimization of a 4-Pole PM Machine
Ion TRIFU; Tiberiu TUDORACHE; Constantin GHITA; Steluta NEDELCU

ELMAD 7 - A Novel Brushless Motor/Generator for Electric Vehicles
Bogdan Dumitru VARATICEANU; Paul MINCIUNESCU; Stelian MARINESCU; Virgil RACICOVSCHI

ELMAD 8 - Open-Loop

ELTECH 3 - Charge Measurement of Dust Particles on Photovoltaic Module
K. DASTOORI; G. AL-SHABAAN; Mohan KOLHE; D. THOMPSON; B. MAKIN

ELTECH 4 - Study of the Electromagnetic Phenomena in the Annular Linear Induction Pump based on 3D Finite Element Models
Cristian Robert ROMAN; Virgiliu FIRETEANU; Yves FAUTRELLE; Michael DUMONT; Sylvain VITRY; Frederic REY

Costin CEPISCA; George Calin SERITAN; Sorin Dan GRIGORESCU; Florin ARGATU

SIMOP 6 - Mathematical Modeling of a Heat Treatment Furnace and Tuning of Cascaded Temperature Control Loops
Catalin PUIU

SIMOP 7 - Optimized SCADA Systems for Electrical Substations
Vlad GEORGESCU

SIMOP 2 - Inductive Coil Influence on Output Ripples of Current Supply
Radu Bogdan DRAGOMIR; Radu DRAGOMIR; Brandusa PANTELIMON

Motors. Part II: Practical Application
Mihail Stefan TEODORESCU; Dumitru STANCIU; Catalin ARGHIR

CIT 1 - Telesurveillance Primary Data Acquisition Module
Iulian TIHON; Vlad BISTEA; Victor CROITORU

CIT 2 - Packet Routing and Information Distribution in Multiprotocol Label Switching
Constantin Viorel MARIAN; Victor CROITORU; Dan OPREA

CIT 3 - Toward Autonomic Management of Software Enabled Networks
Alex GALIS; Stuart CLAYMAN; Lefteris MAMATAS

Losses
Ileana BARAN; Marian COSTEA; Tudor LEONIDA

EMC 2 - Characterisation of Non-Woven Materials for Architectural Electromagnetic Shielding
Andrei MARINESCU

Mechanisms of High-Voltage Circuit Breakers
Viorel NICOLAU; Nicolae BADEA; Marian GAICEANU; Mihaela ANDREI; Ion PARASCHIV

	Control of Hybrid Stepper Motor with Two Phases Using Voltage to Frequency Converter George MIHALACHE; Andreea ZBANT (ADAM); Gheorghe LIVINT					

19:00-22:00 **Get together party**

Friday, 24 May 2013

8:00-9:00 **Registration** (Hall EA)

9:00-11:00

Room #1	Room #2	Room #3	Room #4	Room #5	Room #6
ELMAD II - Electrical Machines and Drives *Chair:*Prof. Aurel CÂMPEANU, Prof. Aurelian CRACIUNESCU *ELMAD 9 - An Improved Method for the Inrush Current Evaluation in Single Phase Power Transformers* Emil CAZACU; Valentin IONITA; Lucian PETRESCU *ELMAD 10 - A Robus*	**ELAPP & ELVE - Electrical Apparatus & Electrical Vehicles** *Chair:*Dr. Virgil RACICOVSCHI, Prof. Mihai O. POPESCU, Prof. Grigore DANCIU *ELAPP 2 - On the Implementation of the Functionalities of Smart Metering Systems* Ioana OPRIS; Lusin	**SIMOP II - Simulation and Optimization** *Chair:*Prof. Alexandru SĂLCEANU, Prof. Horia ANDREI *SIMOP 11 - Properties of Indices for Voltage Stability Assessment* Tomasz OKOŃ; Kazimierz WILKOSZ *SIMOP 10 - Mutiobjectiv*	**MATEL - Materials for Electrotechnics** *Chair:*Dr. P.A.A.F. WOUTERS, A.Prof. Laurenţiu DUMITRAN *MATEL 1 - Electrical Conductivity of Polyethylene-Neodym Composites* Cristina STANCU; Petru V. NOTINGHER; Denis PANAITESCU; Virgil MARINESC	**ST - Sensors and Transducers** *Chair:*Prof. Sorin GRIGORESCU, A.Prof. Constantin ILAŞ *ST 1 - Electronic Sensing Technologies for Autonomous Ground Vehicles: A Review* Constantin ILAS *ST 2 - Health Monitoring Solution Using Dedicated ZigBe*	**ADSP & EDU - Analog and Digital Signal Processing & Education** *Chair:*Prof. Claudia POPESCU, Prof. Liviu KREINDLER *ADSP 3 - A Comparative Study of Some Time Delay Estimation Methods Based on Second-order Statistics*

Method for Stepper Motor Stall Detection
Iulia Cristina STIKA; Liviu Mario KREINDLER; Aurelian SARCA

ELMAD 11 - Thermal Analysis of a PMSM for an Intermittent Periodic Duty Cycle
Anca Simona DEACONU; Aurel Ionut CHIRILA; Valentin NAVRAPESCU; Constantin GHITA; Ioan Dragos DEACONU

ELMAD 12 - The Equivalent Winding – A Solution to a Unified Approach for the Magnetic Force Inside Round Airgaps of Electrical Machines
Mircea COVRIG; Leonard MELCESCU; Ovidiu CRAIU

ELMAD 13 - Optimal Control Implementation of the Three-Phase Induction Machine based on Adaptive Drive System
Marian GAICEANU; Cristinel DACHE; Razvan BUHOSU; Viorel NICOLAU

ELMAD 14 - Health Index Calculation of Electrical Equipments Using DiagConsole Software
CARACASIAN

ELAPP 3 - Aspects Regarding Solar Battery Charge Controllers
Răzvan Florin PANTELIMON; Maricel ADAM; Mihai ANDRUSCA; Cătălin PANCU

ELVE 1 - Estimation of Unmeasurable Parameters of a UAV (Quadrotor)
Ioan-Radu MORAR; Ioan NASCU; Ramona Cornelia HODREA

ELAPP 4 - About Diagnosis of Circuit Breakers
Mihai ANDRUŞCA; Maricel ADAM; Răzvan PANTELIMON; Adrian BARABOI

ELVE 2 - Full Implementation and Assessment of the "Electrocampus" Transportation System Based on Light Electric Vehicles
Grigore DANCIU

Design of Transverse Flux Induction Heating Device for Semiconductor Processing
Camelia PETRESCU; Lavinia FERARIU

SIMOP 12 - Optimization of Reactive Power Flow in a Power System for Different Criteria: Stability Problems
Robert LUKOMSKI; Kazimierz WILKOSZ

SIMOP 13 - A New Approach of Sliding Motion Robot Control Using Bond Graph
Alexandru Ionel GAL; Radu Ioan MUNTEANU; Octavian MELINTE; Luige VLĂDĂREANU

SIMOP 14 - An Analysis of the Harmonic Controller Robustness in LV Active Filters
Ana-Maria DUMITRESCU; Mihaela ALBU

MATEL 2 - Thermal Ageing Effect on Dielectric Properties and Moisture Content of Vegetable and Mineral Oils Used in Power Transformers
Laurentiu Marius DUMITRAN; Alexandra CIURIUC; Petru V. NOTINGHER

MATEL 3 - Electromagnetic behavior of composite materials reinforced with iron powder
Ioan Danut OLTEAN; Dana LUCA MOTOC

MATEL 4 - Iron Losses Evaluation in Soft Magnetic Materials with a Sinusoidal Voltage Supply
Steluta NEDELCU; Ewen RITCHIE; Krisztina LEBAN; Constantin GHITA; Ion TRIFU

MATEL 6 - AC Breakdown Strength and Dielectric Response of Water-treed Low

Sensor Network
Octavian Mihai GHITA; Sorin Dan GRIGORESCU; Cosmin Karl BANICA; Sabina POTLOG

ST 3 - Noesis: A Nitric Oxide Exhaled Sensor Integrated System
Emiliano ZAMPETTI; Andrea BEARZOTTI; Antonella MACAGNANO

ST 4 - New Concept of Measurement Apparatusfor the in situ Electrical Resistivity of Concrete Structures
Lucian PISLARU-DANESCU; Alexandru M. MOREGA; Mihaela MOREGA; Victor STOICA

ST 5 - Hardware Design of a Street Lighting Control System with Vehicle and Malfunction Detection
Alexandru LAVRIC; Valentin Cristian GHIŢĂ; Teofil-Cristian OROIAN; Razvan-Doru RAICU

EDU 1 - Teaching Integrated Circuits Design Using LASI
Krasimira SHTEREVA; Iliya GENCHEV

ADSP 1 - A 14-bit and 70-dB Dynamic Range Continuous Time Sigma Delta Modulator
Dragos DUCU

ADSP 2 - Designing and Testing a Field Programmable Gate Array Based Trigger System
Tudor LEONIDA; Ileana BARAN; Marian COSTEA

EDU 2 - Life in 2030-Brief Presentation from the IEEE Rewievs
Claudia Laurenta POPESCU; Mihai Octavian POPESCU

EDU 3 - Basics of Design and Testing of a Digital Content Generator Tool for e-Learning
Sorin BURLACU;

	Gabriel TĂNĂSESCU; Petru V. NOŢINGHER; Oana DRAGOMIR; Bogdan GORGAN; Lucian VOINESCU *ELMAD 15 - Online Monitoring and Diagnosis System for Hydrogenerator Condition Assessment* Gabriel TĂNĂSESCU; Bogdan GORGAN; Oana DRAGOMIR; Gabriel CONSTANTINESCU; Petru V. NOŢINGHER; Radu Cristian PARLOG			*Density Polyethylene* Florin CIUPRINA; Alexandru HORNEA; Laura ANDREI *MATEL 7 - Characteristic Properties of a Magnetic Nanofluid Used as Cooling and Insulating Medium in a Power Transformer* Floriana STOIAN; Sorin HOLOTESCU; Alina TARCULESCU; Oana MARINICA; Daniela RESIGA; Milan TIMKO; Peter KOPCANSKY; Michal RAJNAK	POPA	Sorin-Dan GRIGORESCU; Catalin STEFAN; Claudia POPESCU

11:00-11:30 **Coffee break** (Hall EA)

11:30-12:30 **Poster Session II: ADSP, ATMAG, CADEE, EDU, ELAPP, ELCI, ELVE, EMGF, MATEL, MAHEE, RES** (EA)

*Chair:*Prof. Florin IONESCU, Prof. Andrzej URBANCZYK, Prof. Mihai IORDACHE, Prof. Maria BROJBOIU, Prof. Florin CIUPRINA, A.Prof. Octavian GHIŢĂ, A.Prof. Dan OLARU

ADSP P1 - Fundamental Frequency Estimation Based on Mean Values
Andrei Sebastian ARDELEANU; Marinel TEMNEANU

ATMAG P1 - Theoretical and Experimental Evaluation on a Counterintuitive Diamagnetically Stabilized Levitation Setup With Permanent Magnets
Gerald KÜSTLER; Iosif Vasile NEMOIANU

CADEE P1 - Computer Aided Design of the Electric Power Source of a Water Treatment Station
Cristina Gabriela SĂRĂCIN; Marin SĂRĂCIN

CADEE P2 - Signal Integrity Issues due to ESD events in HighSpeed CMOS Comparator
Ana-Maria NICUTA; Dumitru Paul BICLEANU; Alexandru SALCEANU

EDU P1 - Remote Control of the Railway Contact Line Disconnectors
Cristina-Gabriela SĂRĂCIN

EDU P2 - Experimental Study Platform of the Automatic Transfer Switch used to Power Supplies Back-Up

Cristina-Gabriela SĂRĂCIN; Marin SĂRĂCIN; Daniel ZDRENŢU

EDU P3 - Elearning Dedicated To the Students of Electrical Engineering

Marius Valerian PAULET; Oana Maria NEACSU; Alexandru SALCEANU

EDU P4 - Master of Sciences Program in Medical Engineering

Mihaela MOREGA; Alexandru Mihail MOREGA; Sorin KOSTRAKIEVICI; Alina MACHEDON

ELAPP P1 - Modeling of Electric Vehicle Battery for Vehicle-to-Grid Applications

Ying PANG; Cormac Joseph BRADY; Giustino Luigi PELLEGRINO; Nicola D'ALFONSO; Krisztina LEBAN; Juan Jesus ALONSO AYUSO; Ewen RITCHIE

ELAPP P2 - Another Method for Measuring the Density of the Liquid in the Volume Comparator VC1005

George Florian POPA; Brânduşa PANTELIMON

ELAPP P3 - 3D Finite Element Analysis of a Miniature Circuit Breaker

Dumitru POP; Liviu NEAMT; Radu TIRNOVAN; Dorin SABOU

ELAPP P4 - Monitoring and Diagnosis for AAR Using Artificial Intelligence Techniques

Magdalena VLAD; Monica CUCU; Sorin FRUMUSELU; Razvan POPOVICI; Mihai Octavian POPESCU; Claudia Laurenta POPESCU

ELAPP P5 - Performance Evaluation of Some Compact Fluorescent Lamps Equipped with Electronic Ballasts Based on Specialized Integrated Circuits

Constantin IVANOVICI; Ionel POPA; Nicolae GOLOVANOV; Eleonora ŢAPU

ELCI P2 - A Method for Minimization the Harmonic Distortions in Three-Phase Inverter Devices

Gelu IONESCU; Gheorghe PALTANEA; Veronica PALTANEA

ELCI P1 - Non-symmetry Factor Computation in Three-Phases Systems

Liliana Marilena MATICA; Helga SILAGHI; Zoltan KOVENDI; Claudiu COSTEA

ELCI P3 - Approach on Electrostatic Discharge Protection Structures Based on Transient Voltage Suppressor Diodes

Dumitru Paul BICLEANU; Ana-Maria NICUŢA

ELVE P1 - Grid Connection Rules for Electric Cars Integrated as Virtual Power Plant in Smart Grids

Krisztina LEBAN; Ewen RITCHIE; Paul THØGERSEN; Alin ARGEŞEANU

EMGF P1 - Experimental Characterization of Electromagnets for Particle Accelerators

Daniel DAN; Daniel IOAN

EMGF P2 - Effective Modeling of HF Integrated Components with Domain Partitioning and Order Reduction

Mihail-Iulian ANDREI; Cosmin-Bogdan DITA; Gabriela CIUPRINA; Daniel IOAN

EMGF P3 - Modeling and Simulation of a New Dynamic Balancing System Based on Magnetic Interaction

Cristinel Ioan ILIE; Daniel COMEAGA; Adrian NEDELCU

EMGF P4 - Reduction of Winding Losses for Trapezoidal Periodic Currents

Marilena STANCULESCU; Oana Mihaela DROSU; Mihai MARICARU

EMGF P5 - Influence of 50 Hz Electromagnetic Field on the Yeast (Saccharomyces Cerevisiae) Metabolism

Cristina STANCU; Monika LINGVAY; Ilona SZATMARI; Iosif LINGVAY

EMGF P6 - Determination of Electromagnetic Risk Area in Electrical Equipments

Monica CUCU; Magdalena VLAD; Claudia Laurenta POPESCU; Mihai Octavian POPESCU

EMGF P7 - GDS2M: Preprocessing Tool for MEMS Devices

Andreea ALEXANDRU; Sorin LUP; Bogdan DITA

EMGF P8 - A Simple and Low-Cost Method for Miniature Power Transformers' Hysteresis Losses Evaluation
Emil CAZACU; Lucian PETRESCU

EMGF P9 - Statistical Optimization of Dielectric's Material Placement Inside a Microwave Applicator Using Response Surface Method
Simina Maria COMAN; Teodor LEUCA; Ovidiu Gabriel COMAN

EMGF P10 - Study On The Magnetic Perturbations Caused By Different Configurations Of The Electrical Conductors With Applications In Biomagnetometry
Anca IFTEMIE; Silvana OJICA

EMGF P11 - Operating Mode Prediction of a Microwave Heating System Using Artificial Intelligence Techniques
Levente CZUMBIL; Dan Doru MICU; Francisc Ioan HATHAZI

EMGF P12 - Enhancement of Particle Swarm Optimization Algorithms for the 3D Crack Reconstruction from ECT Signals
Anton DUCA; Mihai Iulian REBICAN; Ladislav JANOUSEK; Asým Egemen YILMAZ

EMGF P14 - Investigation of Electromagnetic Interferences Issues
Denisa ŞTEŢ; Levente CZUMBIL; Liviu ANCAS

MATEL P1 - Effects of Gamma Irradiation on Resistivity and Absorption Currents in Nanocomposites Based on Thermoplastic Polymers
Ilona PLESA; Traian ZAHARESCU

MATEL P2 - Embedded Resistors in Printed Circuit Board Assembly
Shouguo WANG

MATEL P3 - Method for Estimating the Lifetime of Electric Motors Insulation
Catalin RUSU-ZAGAR; Petru V. NOTINGHER; Valentin NAVRAPESCU; George MARES; Gilda RUSU-ZAGAR; Tanta SETNESCU; Radu SETNESCU

MATEL P4 - Pressboard Roughness and Ageing Influence on Mineral Oil Electrification
Mirela-Stefania VIHACENCU; Petru V. NOTINGHER; Laurentiu Marius DUMITRAN; Dragos OVEZEA

MATEL P5 - PA 6/EPDM Blends for Electrical Insulations. Preliminary Characterization
Alina Ruxandra CARAMITRU; Traian ZAHARESCU; Sorina MITREA; Violeta TSAKIRIS; Virgil MARINESCU; Lidia AVADANEI

MATHEE P1 - Wavelet Solution of the Time Independent Schrodinger Equation for a Rectangular Potential Barrier
Simona Mihaela BIBIC; Emilia Simona MĂLUREANU

RES P1 - Comparative Study for Generic Battery Models Used for Electric Vehicles
Bogdan ENACHE; Emilian LEFTER; Constantin STOICA

RES P2 - The Study and Modeling of a Thermoelectric Generator Module
Crina BOBEAN; Valentina PAVEL

RES P3 - Hardware and Software Architecture of a Smart Meter Based on Electrical Signature Analysis
Marinel TEMNEANU; Andrei Sebastian ARDELEANU

RES P4 - Method for Determining the Effective Capacity Variation Depending on the Discharge Current for Lead-Acid Calcium Batteries
Dorin SABOU; Dumitru Dan POP; Radu TIRNOVAN

RES P5 - A Comparison Between Two Optimized TFPM Geometries for 5 MW Direct-Drive Wind Turbines
Florin Traian Valentin NICA; Ewen RITCHIE; Krisztina LEBAN

RES P6 - Measurement of the Electrical Contact Resistance of PEM Fuel Cell Bipolar Plates
Laurentiu Gabriel PATULARU; Dorin Marius SCHITEA; Aurelian CRACIUNESCU

RES P7 - Pulsed Operation Analysis of the Thermoelectric Generators Used in Space Applications
Viorel Serban STANCIU; Ion BARSAN; Florea Ioan HĂNŢILĂ; Mihai MARICARU; Marilena STĂNCULESCU

12:30-14:30 **Lunch**

14:30-16:30

Room #1	Room #2	Room #3	Room #4
EMGF & ELCI - Electromagnetic Fields & Electric Circuits *Chair:*Prof. Gerard BERGER, Prof. Ioan F. HĂNŢILĂ	**RES & ECOEE - Renewable Sources & Economic Trends in Electrical Engineering** *Chair:*Prof. Mircea EREMIA, Prof. Mircea COVRIG	**SIMOP III & MEMS - Simulation and Optimization & Microelectromechanical Systems** *Chair:*Prof. Mihaela ALBU, A.Prof. Gabriela CIUPRINA	**NUMETH & MATHEE - Numerical Methods & Mathematics for Electrical Engineering** *Chair:*Dr. Romeo BERCIA, Dr. Mihai REBICAN
EMGF 1 - May Laboratory Experiments Explain How a Lightning Protection System Works? Charly SIGOGNE; Gerard BERGER; Thierry REES; Antoine DE FERRON	*ECOEE 1 - Characteristics of Value Analysis Method in Electrical Engineering* Cristina Mihaela GHEORGHE; Mircea COVRIG; Mihai POPESCU	*MEMS 1 - Measurement and Modeling of Nonlinear Effects for Power BAW Filters with AlN* Iulian Gabriel STROE; Florin CONSTANTINESCU; Alexandru Gabriel GHEORGHE; Miruna NITESCU; Olivier LLOPIS	*MATHEE 1 - Application of Frequency Domain Analysis to Fault Transients in Complex HV Transmission Lines* Lei WU; P.A.A.F. (Peter) WOUTERS; E.F. (Fred) STEENNIS
EMGF 2 - A Frequency-Domain Solution for the Motion of Levitated Conductors Mihai MARICARU; Ioan R. CIRIC; Florea Ioan HĂNŢILĂ; Horia GAVRILĂ; George-Marian VASILESCU	*RES 5 - Implementation of Artificial Bee Colony Algorithm on Maximum Power Point Tracking for PV Modules* Bilal BABAR	*SIMOP 9 - Mathematical Model and Software for the Simulation of the Step Type Perturbation Application on the Hydrogenerator Automatic Voltage Regulator Input* Dan ZLATOVICI; Florin IONESCU; Adrian HERISANU; Cicirone CRISTINEL	*NUMETH 1 - Stationarity Hypothesis in Power Systems Data Aggregation. Verification Algorithm* Mihai CALIN; Ana-Maria DUMITRESCU
ELCI 1 - Matrix Formulations of Minimum Dissipated Power Principles and Nodal Method of Circuits Analysis Horia ANDREI; Paul Cristian ANDREI	*RES 2 - Wind Power Plant Hierarchical Control Systems: Dynamic Operation in the Romanian Transmission Grid* Claudia-Elena BOAMBĂ; Constantin MIREA; Mircea EREMIA	*SIMOP 16 - Study on the Influence of Noise in the Printed Character Recognition System* Săndel GHEORGHITA; Radu MUNTEANU; Adrian GRAUR	*MATHEE 2 - A New Model Based on Electro-geometrical Theory for Estimating the Lightning Protection Zones* Dragos MACHIDON; Marcel ISTRATE
ELCI 2 - Magnetic Losses Estimation for Non Sinusoidal Current Supply Valentin IONITA; Adelina BORDIANU	*RES 3 - Photovoltaic/Thermal Combi-Panels: A Review* Ana-Maria CROITORU	*SIMOP 17 - Functional Modeling of an Electric*	*NUMETH 2 - A Multiobjective Optimization Approach via Systematical Modification of the Desirability Function Shapes* O. Tolga ALTINOZ; A. Egemen YILMAZ; Gabriela CIUPRINA
ELCI 3 - Analysis of Positive and Negative SequenceParameters of	*RES 4 - Theoretical and Experimental Research on the Methodology of Designing a System of Trigeneration with*		

Overhead Power Lines over Transient Phases Caused by Short Circuits Iulia CATA; Simona ILIE; Constantin BLAJ; Dumitru TOADER	*Renewable Energy* Ion PARASCHIV; Nicolae BADEA; Ion VONCILA	*Machine Used on Road Vehicles* Valerian CROITORESCU; Iulian CROITORESCU; Grigore DANCIU	*NUMETH 3 - Impact of Problem Dimension on the Execution Time of Parallel Particle Swarm Optimization Implementation* O. Tolga ALTINOZ; A. Egemen YILMAZ; Gabriela CIUPRINA
ELCI 4 - Performance Optimization in Wireless Transfer of Electromagnetic Energy Mihai IORDACHE; Dragos NICULAE; Lucia DUMITRIU	*RES 6 - Stability Limits of a Three-phase Induction Generator Supplying Single-phase Loads* Catalin Petrea ION; Corneliu MARINESCU		*MATHEE 3 - Performance of Enhanced Insulation System Designed for Medium Voltage Cables* Andrzej URBANCZYK
ELCI 5 - Space Phasor Geometrical Loci in Polar Coordinates as Voltage Unbalance Monitoring Tool Aurelian CRACIUNESCU; Gloria Stefania CIUMBULEA; Cătălina NECULA-DUMITRICĂ			

Saturday, 25 May 2013

9:00-11:00	**Technical Visit at the Photovoltaic Power Station** (EA) *Chair:*Prof. Claudia POPESCU, Prof. Valentin NĂVRĂPESCU
11:00-11:30	**Closing Meeting**