

# **2017 10th International Symposium on Advanced Topics in Electrical Engineering (ATEE 2017)**

**Bucharest, Romania  
23-25 March 2017**

**Pages 463-928**



**IEEE Catalog Number: CFP1714P-POD  
ISBN: 978-1-5090-5161-8**

**Copyright © 2017 by the Institute of Electrical and Electronics Engineers, Inc  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP1714P-POD
ISBN (Print-On-Demand):	978-1-5090-5161-8
ISBN (Online):	978-1-5090-5160-1
ISSN:	2068-7966

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

The 10<sup>th</sup> International Symposium on  
ADVANCED TOPICS IN ELECTRICAL ENGINEERING  
Bucharest, March 23-25, 2017

The Faculty of Electrical Engineering , University POLITEHNICA of Bucharest

**SESSIONS / PAPERS**

**ADSP - ANALOG AND DIGITAL SIGNAL PROCESSING**

- ADSP 1 99 [FREQUENCY AND MAGNITUDE ESTIMATION IN VOLTAGE UNBALANCED POWER SYSTEMS.](#) 1-4  
*Nicoleta GILLICH, Ion Cornel MITULETU, Gilbert-Rainer GILLICH, Cristian Paul CHIONCEL, Cornel HATIEGAN*
- ADSP 2 164 [A NON-CONTACT HEART-RATE MONITORING SYSTEM FOR LONG-TERM ASSESSMENTS OF HRV.](#) 5-8  
*Radu-Ion CIUCU, Daniel-Andrei DRAGOMIR, Ioana-Raluca ADOCHIEI, George-Călin SERIȚAN, Costin Cepișcă, Felix-Constantin ADOCHIEI*
- ADSP 3 203 [SOME CONSIDERATIONS ABOUT THIRD-ORDER STATISTICS FOR DIFFERENT TYPES OF RADAR SIGNALS.](#) 9-12  
*Teofil-Cristian OROIAN, Florin ENACHE, Petrică CIOTĂRNEAE*
- ADSP 4 207 [LOW COST ELECTRIC NETWORK SIGNAL AND FREQUENCY RECORDER.](#) 13-16  
*Valentin A. NIȚĂ, Amelia CIOBANU, Cristian NEGRESCU, Dumitru STANOMIR*
- ADSP 5 247 [EXPERIMENTAL RESULTS IN PREDICTION BY PARTIAL MATCHING AND STAR TRANSFORMATION APPLIED IN LOSSLESS COMPRESSION OF TEXT FILES.](#) 17-22  
*Radu RĂDESCU, Sever PAȘCA*
- ADSP 6 265 [MEASUREMENT, NYQUIST AND SHANNON: A VIEW OF PMU METROLOGY.](#) 23-27  
*H. KIRKHAM, Mihaela ALBU*

**CIT - COMMUNICATIONS, INFORMATION TECHNOLOGY**

- CIT 1 234 [DATA ACQUISITION AND IMAGE PROCESSING SYSTEM FOR SURFACE INSPECTION.](#) 28-33  
*Cosmin BANICA, Sanda Victorinne PATURCA, Sorin Dan GRIGORESCU, Ana Maria STEFAN*
- CIT 2 261 [SEGMENT ROUTING.](#) 34-38  
*GELAL Maila, IORDACHE Marius, CROITORU Victor*

**EDU - EDUCATION**

- EDU 1 58 [TOWARDS AUGMENTED REALITY IN POWER ENGINEERING.](#) 39-44  
*Ioana OPRÎȘ, Sorina COSTINAȘ, Cristina Sorana IONESCU, Daniela Elena GOGOĂȘE NISTORAN*
- EDU 2 76 [WHAT THEY BELIEVE, WHAT THEY WANT: A NEEDS ANALYSIS OF ELECTRICAL ENGINEERING STUDENTS ON TEACHING AND ASSESSMENT METHODS.](#) 45-50  
*Cristina Mihaela GHEORGHE, Aurel-Ionuț CHIRILĂ, Ioan-Dragoș DEACONU*
- EDU 3 92 [AN EXAMPLE OF ENHANCING THE TEACHING PROCESS IN POWER ENGINEERING.](#) 51-56

Viorel PETRE, Mihaela ALBU

EDU 4 205 [LABORATORY ELECTRONIC CIRCUIT FOR TRACING I-V AND P-V CHARACTERISTICS OF PHOTOVOLTAIC DEVICES.](#) 57-61

Georgi GOSPODINOV, Krasimira SHTEREVA, Velyana ZHELYAZOVA, Valentin MUTKOV, Yavor NEIKOV, Valentin DIMOV

EDU 5 228 [A PROJECT-BASED ROBOTICS LABORATORY.](#) 62-67

Sanda Victorinne PATURCA, Ana Maria DUMITRESCU, Valeriu BOSTAN, Ana Maria STEFAN

### ELAPP - ELECTRICAL APPARATUS

ELAPP 1 136 [PORTABLE EQUIPMENT FOR ACQUIRING DATA FROM NEW TYPES OF GAS SENSORS.](#) 68-71

Vlad-Cristian GEORGESCU, Mihaela-Nicoleta SMADU

ELAPP 2 138 [THE HYSTERESIS PHENOMENON IN THE HUMAN BIO-ENERGETIC FIELD.](#) 72-75

Lucian M-NDREA, Ioan CURTA

ELAPP 3 165 [THE TESTING STAND OF THE FERRITE CORE TRANSFORMERS.](#) 76-81

Anghel DORIAN, Ionescu FLORIN, Predus Marius FLORIAN

ELAPP 4 170 [INSULATING OIL QUALITY DIAGNOSIS IN EXPLOITATION.](#) 82-87

Marius-Florian PREDUS, Florin IONESCU, Dorian ANGHEL

ELAPP 5 172 [ENERGY INDEPENDENT REMOTE TRANSMISSION UNIT FOR DATA ACQUISITION FROM EX ZONES.](#) 88-91

Silviu TEODORU

### ELCI - ELECTRIC CIRCUITS

ELCI 1 7 [AN ALTERNATIVE METHOD FOR PARTIAL DISCHARGES MEASUREMENT USING DIGITAL FILTERS.](#) 92-97

M. QUIZHPI-CUESTA, F. G-MEZ-JUCA, W. OROZCO-TUPACYUPANQUI, F. QUIZHPI-PALOMEQUE

ELCI 2 41 [ELECTRICAL EQUIVALENT OF WOUND ALUMINUM FOILS.](#) 98-102

Andreas MICHAELIDES, Thanos NICOLAOU

ELCI 3 63 [ORCAD IMPLEMENTATION OF A FREQUENCY RESPONSE FUNCTION USING EQUIVALENT CIRCUITS.](#) 103-106

Laura DARABANT, Denisa STET, Mihaela CRETU, Gloria COSOVICI

ELCI 4 88 [USING S PARAMETERS IN WIRELESS POWER TRANSFER ANALYSIS.](#) 107-112

Marilena ST-NCULESCU, Lavinia IORDACHE (BOBARU), Mihai IORDACHE, Dragoş NICULAE, Victor BUCAT-

ELCI 5 162 [CHALLENGES AND OPPORTUNITIES FOR BATTERIES OF ELECTRIC VEHICLES.](#) 113-117

George SUCIU, Adrian PASAT

ELCI 6 163 [SMART, LOW POWER, WEARABLE MULTI-SENSOR DATA ACQUISITION SYSTEM FOR ENVIRONMENTAL MONITORING.](#) 118-123

M. SERBANESCU, V. M. PLACINTA, O. E. HUTANU, C. RAVARIU

### ELMAD - ELECTRICAL MACHINES AND DRIVES

ELMAD 1 18 [EVALUATION OF CONDUCTION AND SWITCHING LOSSES IN CASCADED MULTILEVEL INVERTERS.](#) 124-127

Ali MIRIZADEH, Farshid Abdolhnejad BAROOGH, Milad GHEYDI, Houman ZARRABI, Payam FARHADI

ELMAD 2	24	<a href="#"><u>NOISE ANALYSIS FOR NO LOAD OPERATING POWER TRANSFORMERS.</u></a>	128-131
		<i>Ioan-Dragoş DEACONU, Robert-Constantin DRAGOMIR, Aurel-Ionuş CHIRILĂ, Anca-Simona DEACONU, Cristina Gabriela SĂRĂCIN, Valentin NĂVRĂPESCU</i>	
ELMAD 3	27	<a href="#"><u>ROTOR-FLUX MODEL FOR SENSORLESS VECTOR-CONTROL OF SUPER-HIGH-SPEED IPMSM.</u></a>	132-137
		<i>Dragos Ovidiu KISCK, Dragos Sorin ANGHEL, Mariana KISCK</i>	
ELMAD 4	39	<a href="#"><u>EXPERIMENTAL MITIGATION TECHNIQUES TO REDUCE THE TOTAL HARMONIC DISTORTION OF LOW VOLTAGE NON-LINEAR POWER SOURCES.</u></a>	138-141
		<i>Laurențiu CIUFU, Claudia-Laurența POPESCU, Mihai-Octavian POPESCU</i>	
ELMAD 5	40	<a href="#"><u>NUMERICAL SIMULATIONS AND EXPERIMENTAL VERIFICATIONS OF A PERMANENT MAGNET SYNCHRONOUS MACHINE IN GENERATOR REGIME.</u></a>	142-147
		<i>Nicolae DIGA, Constantin-Florin OCOLEANU, Silvia-Maria DIGA</i>	
ELMAD 6	50	<a href="#"><u>INDUCTION MOTOR DRIVE DESIGN BASED ON EFFICIENCY OPTIMIZATION AND DRIVE LOSS MINIMIZATION.</u></a>	148-154
		<i>Davoud Mostafa TOBNAGHI, Masomeh ALIREZALOO, Milad GHEYDI, Farshid Abdollahnejad BAROOGH, Payam FARHADI</i>	
ELMAD 7	52	<a href="#"><u>USING EQUATIONS OF SATURATED ASYNCHRONOUS MACHINES WITH COMBINED STATE VARIABLES FOR ANALYSIS OF SOME SPECIFIC DYNAMIC REGIMES.</u></a>	155-158
		<i>Sorin ENACHE, Aurel CAMPEANU, Ion VLAD, Monica-Adela ENACHE</i>	
ELMAD 8	91	<a href="#"><u>MATCHING THE PERFORMANCES OF A DIESEL ENGINE WITH A MILD-HYBRID DRIVING SYSTEM. BASED ON TELEMETRY DATA.</u></a>	159-164
		<i>Bogdan ANTON, Adriana FLORESCU</i>	
ELMAD 9	121	<a href="#"><u>ENHANCED MATHEMATICAL MODEL USED TO SIMULATE INDUCTION MACHINE OPERATION. EXPERIMENTAL VALIDATION.</u></a>	164-169
		<i>Ion-Daniel ILINA</i>	
ELMAD 10	148	<a href="#"><u>TORQUE ANALYSIS IN BRUSHLESS DIRECT CURRENT MOTORS AND CONSTRUCTIVE RECOMMENDATIONS.</u></a>	170-175
		<i>Ion VLAD, Aurel CAMPEANU, Sorin ENACHE, Monica Adela ENACHE</i>	
ELMAD 11	156	<a href="#"><u>ANALYSIS OF EQUIVALENT CONTROL STRUCTURES FOR POSITIONING SYSTEMS.</u></a>	176-181
		<i>Aurelian SARCA, Liviu KREINDLER</i>	
ELMAD 12	179	<a href="#"><u>PERFORMANCE ANALYSIS OF AN AUTONOMOUS SYSTEM USED TO GUIDE THE SOLAR PANELS.</u></a>	182-185
		<i>Adrian Neculai ROMANESCU, Mihaela POENAR, Ilie NIȚAN</i>	
ELMAD 13	188	<a href="#"><u>COMPLETE FPGA BASED REAL-TIME MOTOR DRIVE SIMULATOR WITH BIDIRECTIONAL BATTERY AND ULTRACAPACITOR POWER SUPPLY.</u></a>	186-191
		<i>Mircea RUBA, Sorina CIORNEI, Horia HEDESIU, Claudia MARTIS</i>	
ELMAD 14	193	<a href="#"><u>DESIGN AND MODELING OF A HYBRID STEPPER MOTOR.</u></a>	192-195
		<i>Ioana IONICĂ, Mircea MODREANU, Alexandru MOREGA, Cristian BOBOC</i>	
ELMAD 15	221	<a href="#"><u>MODELLING AND TRANSIENT ANALYSIS OF A</u></a>	196-200

THREE-PHASE LOW-SPEED SWITCHED  
RELUCTANCE MICRO-WIND GENERATOR

*M.A. DRANCA, M.V. ZAHARIA, M.M. RADULESCU*

- ELMAD 16 225 HIGH TEMPERATURE SUPERCONDUCTOR DIPOLAR  
MAGNET FOR HIGH MAGNETIC FIELD GENERATION  
N̄ DESIGN AND FABRICATION ELEMENTS 201-205  
*I. DOBRIN, A.M. MOREGA, D. ENACHE, A. DOBRIN, M.  
MOREGA, A.A. DOBRE, I. POPOVICI*
- ELMAD 17 236 NUMERICAL MODELING OF A PLANAR  
TRANSFORMER FOR MICRO-POWER CONTROLLERS 206-210  
*Yelda VELL, Alexandru M. MOREGA, Mihaela MOREGA, Lucian  
PESLARU-DĂNESCU*
- ELMAD 18 240 PARAMETER OPTIMIZATION FOR A FUZZY LOGIC  
CONTROL OF A PERMANENT MAGNET BRUSHLESS  
MOTOR 211-216  
*F. Philibert ANDRINIRINIIMALAZA, N. †Jean RAZAFINJAKA,  
Liviu M. KREINDLER*
- ELMAD 19 259 EFFECT OF PARAMETERS AND RESISTANT TORQUE  
UPON DYNAMIC PERFORMANCES OF PERMANENT-  
MAGNET SYNCHRONOUS MACHINE 217-222  
*Aurel CAMPEANU, Ion VLAD, Sorin ENACHE, Monica Adela  
ENACHE*

**ELSP - ELECTROSPINNING**

- ELSP 1 198 FILTERING MEMBRANES BASED ON ELECTROSPUN  
EXPANDED POLYSTYRENE/B-CYCLODEXTRIN  
FIBERS 223-226  
*Cristina BANCIU, Adela BARA, Elena CHITANU, Marius  
LUNGULESCU, Ioana ION, Lucia LEONAT*
- ELSP 2 212 PAN/ZNO COMPOSITE ELECTROSPUN FIBERS FOR  
UV SHIELDING APPLICATIONS 227-230  
*Elena CHITANU, Adela BARA, Delia PATROI, Virgil  
MARINESCU, Maria Mirela CODESCU, Cristina BANCIU*

**ELTECH - ELECTROTECHNOLOGIES**

- ELTECH 1 23 THE ORIGINAL PATENTED CORONA  
MULTITHREADED ELECTRODE FOR ROTATING  
CYLINDER ELECTROSEPARATORS 231-236  
*Calin PLESA, Roman MORAR, Tudor PLESA, Maria VADAN*
- ELTECH 2 87 POWERING AERIAL SURVEILLANCE DRONES 237-240  
*Cristina Gabriela SĂRĂCIN, Ioan Dragoş DEACONU, Aurel  
Ionuţ CHIRILĂ*

**ELVE - ELECTRICAL VEHICLE**

- ELVE 1 254 DEVELOPMENT OF A WIRELESS BATTERY CHARGER  
FOR DACIA ELECTRON EV 241-247  
*Andrei MARINESCU, Adrian VINTILA, Danut Gabriel  
MARINESCU, Viorel NICOLAE*

**EMB - ENGINEERING IN MEDICINE AND BIOLOGY**

- EMB 1 59 COMPARISON OF SIGNAL PROCESSING METHODS  
APPLIED ON A MAGNETOCARDIOGRAPHIC SIGNAL 248-253  
*Georgiana ROSU, Miuta Carmina RAU, Octavian BALTAG*
- EMB 2 129 LOW-POWER WIRELESS TEMPERATURE SENSOR  
FOR HEALTH MONITORING 254-257  
*Ionuţ RĂDOI, Lidia DOBRESCU, Sever Viorel PAŞCA*
- EMB 3 184 ASPECT RATIO INFLUENCE ON FLOW FOCUSING IN  
CROSS MICROCHANNELS 258-261  
*Iulia Rodica DAMIAN, Nicoleta Octavia TANASE, Corneliu  
BALAN*
- EMB 4 208 COMPARISON OF THE ICA AND PCA METHODS IN 262-267

CORRECTION OF EEG SIGNAL ARTEFACTS,

Monika KACZOROWSKA, Malgorzata PLECHAWSKA-WOJCIK,  
Mikhail TOKOVAROV, Roman DMYTRUK

EMB 5 223 A NEURAL-NETWORK BASED APPROACH FOR EXUDATES EVALUATION IN RETINAL IMAGES, 268-273

Traian CARAMIHAI, Dan POPESCU, Loretta ICHIM

EMB 6 226 PLANNING OF RENAL TUMOR ABLATION AIDED BY NUMERICAL MODELING, 274-278

Alin A. DOBRE, Alexandru M. MOREGA, Larisa D. VGERLAN,  
Alina M. SANDOIU, Mihaela MOREGA

EMB 7 231 A STUDY OF CARDIOVASCULAR HEMODYNAMICS IN OBESE PATIENTS ASSESSED BY ECHOCARDIOGRAPHY AND NUCLEAR SCINTIGRAPHIC TESTS AND USING A MATHEMATICAL MODEL, 279-282

Vasile MANOLIU, Cristina Maria STANESCU, Dan Adrian STANESCU

EMB 8 238 ISSUES ON EARLY CANCER DETECTION USING THERMOGRAPHIC METHODS, 283-286

George Marian VASILESCU, Victor CAUNI, Gabriel KACSO,  
Marilena STĂNCULESCU, Mihai Eugen MARIN, Mihai MARICARU, Ioan Florea HĂNȚILĂ

EMB 9 253 AN ANALYSIS OF EYE-TRACKING AND ELECTROENCEPHALOGRAPHY DATA FOR COGNITIVE LOAD MEASUREMENT DURING ARITHMETIC TASKS, 287-292

Magdalena BORYS, Mikhail TOKOVAROV, Martyna WAWRZYK,  
Kinga WESOŁOWSKA, Malgorzata PLECHAWSKA-WOJCIK,  
Roman DMYTRUK, Monika KACZOROWSKA

EMB 10 257 PARAMETER-BASED ANALYSIS OF ANTEPARTUM AND LABOUR ELECTROHYSTEROGRAM SIGNALS, 293-296

Alexandru PĂȘĂRICĂ, Casian MIRON, Hariton COSTIN, Dragoș AROTĂRIȚEI, Cristian ROTARIU

EMB 11 258 HAND GESTURE DETECTION USING A STEREO CAMERA SYSTEM AND SIMULATION OF MOVEMENT, 297-300

Casian MIRON, Alexandru PĂȘĂRICĂ, Dragoș AROTĂRIȚEI,  
Hariton COSTIN, Radu Gabriel BOZOMITU, Cristian ROTARIU

EMB 12 263 NEW TRENDS IN BLOOD PRESSURE HOME MONITORING, 301-304

Mihai CHETAN, Corneliu MOLDOVAN

EMB 13 264 REMOTE SENSING TECHNOLOGIES FOR PHYSIOTHERAPY ASSESSMENT, 305-312

Octavian POSTOLACHE

**EMC - ELECTROMAGNETIC COMPATIBILITY**

EMC 1 35 THE CONNECTION OF RENEWABLE SOURCES TO THE GRID INFLUENCES AND POWER QUALITY ISSUES, 313-318

Stefan GHEORGHE, Nicolae GOLOVANOV, George Cristian LAZAROIU, Carmen STANESCU, Gabriel GHEORGHE

EMC 2 47 EFFICIENT METHOD FOR ANALYZING OF BROADSIDE-COUPLED SUSPENDED SUBSTRATE STRIPLINE, 319-322

Ali BOUOUDEN, Mohamed Lahdi RIABI, Abdelhalim A. SAADI

EMC 3 110 MAGNETIC FIELD OF PARALLEL AND TWISTED WIRE PAIRS, 324-329

Octavian BALTAG, Georgiana ROSU, Miuta Carmina RAU

EMC 4 152 SIDE EFFECTS OF THE POWER FREQUENCY 330-335

MAGNETIC FIELD MITIGATION

*Marian COSTEA, Ileana BĂRAN*

- EMC 5 161 ANALYZING THE ATTENUATION OF ELECTROMAGNETIC SHIELDING MATERIALS FOR FREQUENCIES UNDER 1 GHz, 336-339  
*Viorica VOICU, Ion PĂTRU, Petre-Marian NICOLAE, Livia-Andreea DINA*

**EMGF - ELECTROMAGNETIC FIELDS**

- EMGF 1 30 NUMERICAL MODELLING OF A MICROSTRIP PATCH ANTENNA FOR WIRELESS APPLICATIONS, 340-345  
*Viorel IONESCU*
- EMGF 2 43 ELECTROMAGNETIC EXPOSURE DUE TO PORTABLE TWO-WAY RADIO TRANSCEIVERS AND WALKIE-TALKIES, 346-349  
*Simona MICLAUS, Ionel DUMBRAVA, Viorica VOICU, Paul BECHET, Ion PATRU*
- EMGF 3 61 PLANAR TRANSFORMER WINDINGS LOSSES AT DIFFERENT WAVEFORMS, 350-353  
*Lucian PETRESCU, Bogdan CHESCA, Emil CAZACU, Catalina PETRESCU*
- EMGF 4 62 3D ASSESSMENT OF ESD FIELD LEVEL FOR PROTECTION DEVICES SAFETY, 354-357  
*BENIUGĂ Oana, BENIUGĂ Răzvan*
- EMGF 5 64 EXTREME LIGHT INFRASTRUCTURE - NUCLEAR PHYSICS (ELIŃNP): PRESENT STATUS AND PERSPECTIVES, 358-362  
*Nicolae Victor ZAMFIR*
- EMGF 6 65 AN EFFICIENT METHOD FOR INVESTIGATING THE FERRORESONANCE OF SINGLE-PHASE IRON CORE DEVICES, 363-368  
*Emil CAZACU, Valentin IONIŃĂ, Lucian PETRESCU*
- EMGF 7 75 REMARKS ABOUT THE MAGNETIC CHARACTERIZATION OF MAGNETITE NANOPOWDERS, 369-372  
*Valentin IONIŃĂ, Emil CAZACU, Lucian PETRESCU*
- EMGF 8 97 USING WEBENCH COIL DESIGNER FOR WIRELESS POWER TRANSFER COIL GENERATION 373-377  
*Catalin BIBIRICA, Cristian SANDU, Lucian ENE, Mihai IORDACHE*
- EMGF 9 124 SHIELDING OF MAGNETIC FIELD PRODUCED BY ENERGIZED CABLES, 378-381  
*Monica ALEXANDRU, Cristian Gabriel FARTINESCU, Claudia Laurenta POPESCU, Mihai Octavian POPESCU*
- EMGF 10 168 LOSSES ANALYSIS FOR A SOFT MAGNETIC COMPOSITE MATERIAL, 382-385  
*Adelina BORDIANU*
- EMGF 11 176 PARAMETRIC CURVES TO TRACE THE TMS COILS WINDINGS, 386-391  
*Przemyslaw SYREK, Ruxandra BĂRBULESCU*
- EMGF 12 209 EARLY DETECTION OF A SQUIRREL-CAGE BAR BREAKAGE THROUGH HARMONICS OF STATOR CURRENTS AND OF MAGNETIC FIELD IN THE MOTOR PROXIMITY, 392-397  
*Alexandru-Ionel CONSTANTIN, Virgiliu FIRETEANU*
- EMGF 13 251 SIMPLE HIERARCHICAL MODELS OF THE TRANSCRANIAL MAGNETIC STIMULATION, 398-403  
*Daniel IOAN, Ruxandra BĂRBULESCU, Jean CIUREA, Gabriela CIUPRINA, Przemyslaw SYREK*



EMGF 14	262	<a href="#">ON ELECTRIC VEHICLE WIRELESS CHARGERS WITH TIGHT COUPLING.</a>	404-409
		<i>Ioana-Gabriela ȘERBU, Andrei MARINESCU, Lucian MANDACHE</i>	

### **IADI - INDUSTRY APPLICATIONS, DESIGN AND INFORMATICS**

IADI 1	256	<a href="#">RFID SYSTEM WITH PASSIVE RFID TAGS FOR TEXTILES.</a>	410-415
		<i>Aurelian MORARU, Elena HELEREA, Corneliu URSACHI, Marius Daniel CĂLIN</i>	
IADI 2	260	<a href="#">ON THE EVALUATION OF THE FLEXIBILITY EFFORT OF THE ELECTRICAL EQUIPMENT PRODUCTION SYSTEM.</a>	416-419
		<i>Maria BROJBOIU, Virginia IVANOV</i>	

### **MATEL - MATERIALS FOR ELECTROTECHNICS**

MATEL 1	32	<a href="#">LABORATORY SET-UP TO EVALUATE THE B-H RELATIONSHIP IN SOFT MAGNETIC MATERIALS.</a>	420-423
		<i>Gheorghe PALTANEA, Veronica MANESCU (PALTANEA), Paul Cristian ANDREI, Catalin GRUMEZA, Stelian MARINESCU</i>	
MATEL 2	33	<a href="#">INFLUENCE OF INCREASE MECHANICAL CUTTING DEGRADATION ON 50 HZ MAGNETIC PROPERTIES OF NON-ORIENTED ELECTRICAL STEELS.</a>	424-427
		<i>Gheorghe PALTANEA, Veronica MANESCU (PALTANEA), Horia GAVRILA, Doina Elena GAVRILA Iosif Vasile NEMOIANU</i>	
MATEL 3	69	<a href="#">DETERMINATION OF THE REMAINING LIFETIME OF POWER TRANSFORMERS LIQUID INSULATIONS BASED ON THE ABSORPTION/RESORPTION CURRENTS.</a>	428-433
		<i>Petru V. NOTINGHER, Laurentiu Marius DUMITRAN, Stefan BUSOI, Gabriel TANASESCU, Laurentiu Viorel BADICU, Radu SETNESCU</i>	
MATEL 4	80	<a href="#">THERMAL AND ELECTRICAL STRESSES EFFECT ON THE XLPEEPR DC CABLE JOINTS INSULATIONS.</a>	434-439
		<i>Cristina STANCU, Petru NOTINGHER, Lucian TARANU, Adelina CERNAT, Alexandra CONSTANTIN</i>	
MATEL 5	81	<a href="#">EXPERIMENTAL STUDY OF AIR DEHUMIDIFICATION IN AN ELECTROSTATIC WIRE-CYLINDER CONDENSER.</a>	440-443
		<i>Laurentiu Marius DUMITRAN, Daniel Constantin OANCEA, Gabriela Elena DUMITRAN</i>	
MATEL 6	204	<a href="#">EXCHANGE HARDENED FERRIMAGNETIC NANOCOMPOSITES.</a>	444-447
		<i>M. M. Codescu, W. Kappel, E. Chitanu, E. Manta</i>	

### **MATHEE - MATHEMATICS IN ELECTRICAL ENGINEERING**

MATHEE 1	105	<a href="#">A NEW METHOD TO EVALUATE THE STABILITY OF A DROOP CONTROLLED MICRO GRID.</a>	448-453
		<i>Alessandro LABELLA, Daniele MESTRINER, Renato PROCOPIO, Massimo BRIGNONE</i>	
MATHEE 2	106	<a href="#">ANALYSIS OF A MULTIRATE CT/DT CASCADE ΣΔ MODULATOR</a> <a href="#">IMPACT OF USING A LOWEST OUTPUT SAMPLING FREQUENCY.</a>	454-457
		<i>J. G. GARCÍA-SANCHEZ, F. SANDOVAL-IBARRA</i>	
MATHEE 3	144	<a href="#">AN OVERVIEW REGARDING THE ANALYTICAL VS. NUMERICAL COMPUTATION FOR A PMB USED FOR FESS.</a>	458-462

Dan V. DANIEL, Nicolae TĂNASE, E.S. APOSTOL, Ionel

CHIRIȚĂ, Cristinel ILIE

MATHEE 4 159 [SYNCHRONIZATION VERSUS OSCILLATION](#) 463-468  
[QUENCHING](#)

Vladimir RĂȘVAN

MATHEE 5 201 [MATHEMATICAL MODELING OF EDDY CURRENT](#) 469-474  
[NON-DESTRUCTIVE TESTING](#)

E.S. APOSTOL, Adrian NEDELICU, Dan V. DANIEL, Ionel

CHIRIȚĂ, Nicolae TĂNASE

### MPHYS - MULTIPHYSICS PROBLEMS AND MODELING

MPHYS 1 46 [MODELING THE WATER AND SEDIMENT DYNAMICS](#) 478-482  
[IN VEGETATIVE FILTER STRIPS](#)

Stelian ION, Dorin MARINESCU, Stefan Gicu CRUCEANU

MPHYS 2 48 [NUMERICAL MODELLING OF THE SHEAR BANDING](#) 483-486  
[FLOW IN THE PROXIMITY OF MICRO-STRUCTURES](#)

Diana BROBOANA, Cristina Sorana IONESCU, Corneliu BALAN

MPHYS 3 67 [PERFORMANCE ANALYSIS OF LORENZ CHAOTIC](#) 487-492  
[DYNAMICAL CONTROL SYSTEMS USING ADAPTIVE](#)  
[SYNCHRONIZATION AND ADAPTIVE](#)  
[BACKSTEPPING CONTROL](#)

Zhengmao YE, Hang YIN

MPHYS 4 78 [VISCOELASTIC EFFECTS ON DROP DETACHMENT IN](#) 493-496  
[A VISCOUS OUTER FLUID](#)

Claudiu PĂTRAȘCU, Corneliu BĂLAN

MPHYS 5 96 [THE EFFECTS OF FOAM ON NON-CONTACTING](#) 497-502  
[RADARBASED LEVEL MEASUREMENT](#)

Vlad NEAGU

MPHYS 6 137 [STUDIES REGARDING FORCED CRYSTALLIZATION](#) 503-508  
[OF DIFFERENT IONIC MULTIPHASE SOLUTIONS ON](#)  
[INTENSE AND UNIFORM ELECTRIC FIELD](#)

Lucian M-NDREA, Zoltan MAROSY, Marian COSTEA

MPHYS 7 149 [FAN COWL'S ORIFICES TYPE ANALYSIS OF FAN-](#) 509-512  
[COOLED INDUCTION MOTORS](#), Aurel-Ionuț CHIRILĂ,

Lucian M-NDREA, Ioan-Dragoș DEACONU, Carmen

MATEESCU, Valentin NĂVRĂPESCU

MPHYS 8 154 [PARAMETRIC REDUCED ORDER MODELS IN STATIC](#) 513-518  
[MULTIPHYSICS ANALYSIS OF MEMS SWITCHES](#)

Aurel Sorin LUP, Gabriela CIUPRINA, Daniel IOAN, Anton

DUCA, Alexandra ȘTEFĂNESCU, Dan VASILACHE, Michael

KRAFT

MPHYS 9 216 [DIELECTRIC PROPERTIES ESTIMATION OF](#) 519-523  
[NANODIELECTRIC INTERPHASE BY NUMERICAL](#)

[MODELING AND DIELECTRIC SPECTROSCOPY](#)

Laura ANDREI, Florin CIUPRINA

### NUMETH - NUMERICAL METHODS

NUMETH 1 73 [COMPARISON BETWEEN NON-ORIENTED SILICON](#) 524-528  
[IRON SHEETS USED FOR ELECTRICAL MACHINES](#)

Lucian PETRESCU, Emil CAZACU, Valentin IONIȚĂ, Catalina

PETRESCU

NUMETH 2 79 [PARAMETRIZED REDUCED MODEL OF RF MEMS](#) 529-532  
[CAPACITIVE SWITCH](#)

Sebastian KULA, Aurel-Sorin LUP

NUMETH 3 127 [SENSITIVITY ANALYSIS ON FLOW RATE](#) 533-538  
[ESTIMATION USING DESIGN OF EXPERIMENTS](#)

[APPLICATION TO THE PRESSURE-TIME METHOD](#)

Georgiana DUNCA, Diana Maria BUCUR, Michel J.

CERVANTES

## PEE - POWER ENGINEERING, ENERGETICS

PEE 1	60	<a href="#"><u>VERTICAL EARTH GROUNDING DESIGN USING OPTIMAL CRITERIA</u></a> , Virgil MAIER, Sorin G. PAVEL, Horia G. BELEIU, Sorin C. PICĂ	539-544
PEE 2	98	<a href="#"><u>SOME POWER QUALITY ISSUES IN POWER SUBSTATION FROM RESIDENTIAL AND EDUCATIONAL BUILDINGS</u></a> , Gabriel N. POPA, Angela IAGĂR, Corina M. DINIȘ	545-550
PEE 3	118	<a href="#"><u>SMART METERING BASED APPROACH FOR PHASE BALANCING IN LOW VOLTAGE DISTRIBUTION SYSTEMS</u></a> , Gheorghe GRIGORAS, Bogdan-Constantin NEAGU, Florina SCARLATACHE	551-554
PEE 4	146	<a href="#"><u>OUTLIERS DISCOVERY FROM SMART METERS DATA USING A STATISTICAL BASED DATA MINING APPROACH</u></a> , Bogdan Constantin NEAGU, Gheorghe GRIGORAȘ, Florina SCARLATACHE	555-558
PEE 5	150	<a href="#"><u>THE IMPACT OF USING THE POST-COMBUSTION CCS ON THE COAL-FIRED TPP INTERNAL CONSUMPTIONS</u></a> , Mihaela NORIȘOR, Victor-Eduard CENUȘĂ, Elena ARION	559-562
PEE 6	166	<a href="#"><u>DISTRIBUTION GRID RECONFIGURATION THROUGH SIMULATED ANNEALING AND TABU SEARCH</u></a> , Valentin A. BOICEA	563-568
PEE 7	180	<a href="#"><u>ON THE FREQUENCY MEASUREMENT IN WIDE AREA MEASUREMENT AND CONTROL SYSTEMS</u></a> , Mihai SĂNDULEAC, Ana-Maria DUMITRESCU, Lucian TOMA, Carmen STĂNESCU, Mihaela ALBU	569-572
PEE 8	224	<a href="#"><u>STUDY OF ENERGY EFFICIENCY IN INDUSTRY</u></a> , Mariana IORGULESCU	573-578
PEE 9	227	<a href="#"><u>INVESTIGATION OF POWER QUALITY PROBLEMS AT A WOOD-BASED PANELS PLANT</u></a> , Angela Iagăr, Gabriel N. Popa, Corina M. Diniș	579-584

## POWEL - POWER ELECTRONICS AND POWER CONVERTERS

POWEL 1	26	<a href="#"><u>POWER FLOW MANAGEMENT IN THREE PORT CONVERTER USING PV PANEL WITH MAXIMUM POWER POINT TRACKER</u></a> , Sarab Jwaid AL-CHLAHAWI, Aurelian CRACIUNESCU, Ammar Ghalib Al-GIZI	585-590
POWEL 2	66	<a href="#"><u>CONFIGURING AND EXPERIMENTAL EVALUATION OF A LABORATORY MODEL FOR FILTERING AND REGENERATION IN ACTIVE DC TRACTION SUBSTATIONS</u></a> , Alexandru BITOLEANU, Mihaela POPESCU, Constantin Vlad SURU	591-596
POWEL 3	74	<a href="#"><u>ELECTRIC DRIVE SYSTEM FOR SPEED ADJUSTING OF A THREE-PHASE ASYNCHRONOUS MOTOR USING A PLC FOR PROPELLING AN ELECTRIC VEHICLE</u></a> , †Lucian-Vasile ENE, Diana-Ramona SĂNĂTESCU	597-600
POWEL 4	85	<a href="#"><u>ON THE FREQUENCY CONTROL IN HIGH EFFICIENCY INDUCTION HEATING SYSTEM WITH RESONANT INVERTER</u></a> , Mihaela POPESCU, Alexandru BITOLEANU, Mircea DOBRICEANU	601-606

POWEL 5	90	<a href="#"><u>DSP CONTROL IMPLEMENTATION PARTICULARITIES FOR AN ACTIVE DC TRACTION SUBSTATION EXPERIMENTAL MODEL.</u></a>	607-612
		<i>Constantin Vlad SURU, Mihaela LINCA, Eugen SUBTIRELU</i>	
POWEL 6	112	<a href="#"><u>STUDY OF NONLINEAR BEHAVIOR OF THE BUCK CONVERTER BY MATHCAD NUMERICAL SIMULATION.</u></a>	613-616
		<i>Dan OLARU</i>	
POWEL 7	115	<a href="#"><u>EFFECT OF COMPONENT DESIGN ON THE DC/DC POWER CONVERTERS DYNAMICS.</u></a>	617-620
		<i>M.Q. DUONG, H.H. NGUYEN, T.H.D. NGUYEN, T.T. NGUYEN, G.N. SAVA</i>	
POWEL 8	119	<a href="#"><u>A REVIEW OF HYBRID FIVE-LEVEL VOLTAGE SOURCE INVERTERS.</u></a>	621-626
		<i>L. PARVULESCU, B. GLOD, D. FLORICAU</i>	
POWEL 9	122	<a href="#"><u>AUTOMATED SYSTEM ADJUSTMENT CRITERION FOR SINUSOIDAL INPUT SIGNAL.</u></a>	627-630
		<i>Mihail Ștefan TEODORESCU, Ștefan George ROȘU</i>	
POWEL 10	142	<a href="#"><u>A CONFLICT IN CONTROL STRATEGY OF VOLTAGE AND CURRENT CONTROLLERS IN MULTI-MODULAR SINGLE-PHASE UPS INVERTERS SYSTEM.</u></a>	631-636
		<i>Santosh Kumar SINGH, Ghatak CHOUDHURI</i>	
POWEL 11	158	<a href="#"><u>CASE STUDY FOR DESIGNING A BATTERY CHARGER WITH MINIMUM REQUIRED COMPONENTS.</u></a>	637-640
		<i>Viorel PETRE, Constantin Daniel OANCEA</i>	
POWEL 12	167	<a href="#"><u>FIBER OPTIC TEMPERATURE MONITORING SYSTEM OF POWER CABLE LINES.</u></a>	641-644
		<i>V.M. BARINOV, D.V. KIESEWETTER, D.A. SHATILOV, A.S. PYLTZOV</i>	
POWEL 13	194	<a href="#"><u>MULTILEVEL DIRECT PWM AC-AC CONVERTERS.</u></a>	645-648
		<i>Bogdan GLOD, Lucian P-RVULESCU, Dan FLORICĂU</i>	
POWEL 14	230	<a href="#"><u>A COMPREHENSIVE APPROACH TO THE MODELLING AND CONTROL OF A HIGH VOLTAGE DIRECT CURRENT MODULAR MULTILEVEL CONVERTER.</u></a>	649-654
		<i>Catalin DAMIAN</i>	

#### **QR - QUALITY AND RELIABILITY**

QR 1	93	<a href="#"><u>"HOLDERCPS" - A NEW TYPE DATA RECORDER SYSTEM FOR PROACTIVE MAINTENANCE TO ROTARY BLADE MACHINES.</u></a>	655-660
		<i>Constantin VILCU, Filip NICULESCU, Andrei MITRU, Cristian NECHIFOR, Claudia-Irina BORZEA, Camelia CORNEA</i>	
QR 2	109	<a href="#"><u>METRICS IMPROVEMENT FOR PHASE CONTAINMENT EFFECTIVENESS IN AUTOMOTIVE SOFTWARE DEVELOPMENT PROCESS.</u></a>	661-666
		<i>Ionuț-Andrei SANDU, Alexandru SALCEANU</i>	
QR 3	132	<a href="#"><u>DESIGN AND IMPLEMENTATION OF AN HVAC SYSTEM FOR CONVERTING A DECOMMISSIONED HANGAR IN A CONFERENCE ROOM WITH A CAPACITY OF 800 SEATS.</u></a>	667-672
		<i>Mihail-Florin STAN, Adela-Gabriela HUSU, Ionuț-Adrian MINA, Nicolae FIDEL, Cosmin COBIANU</i>	
QR 4	140	<a href="#"><u>INTEGRATED MANAGEMENT SYSTEM FOR QUALITY, SAFETY AND SECURITY IN DEVELOPING AUTONOMOUS VEHICLES.</u></a>	673-676
		<i>Simona GIFEI, Alexandru SALCEANU</i>	
QR 5	187	<a href="#"><u>QUALITY ANALYSIS OF AN EDUCATIONAL WEBSITE.</u></a>	677-682

[REGARDING THE SERVER TRAFFIC SUBJECT OF ANALYSIS: WWW.ELECTRO.PUB.RO SERVER](#)

*Cristian Gabriel FARTINESCU, Monica ALEXANDRU, Anca-Simona DEACONU, Mihai Octavian POPESCU, Claudia Laurenta POPESCU*

- QR 6 217 [RELIABILITY ANALYSIS OF A WEB SERVER BY FTA METHOD](#), Gabriel PETRICA, Ionut-Daniel BARBU, Sabina-Daniela AXINTE, Cristian PASCARIU 683-686
- QR 7 245 [E-LEARNING PLATFORM DEVELOPMENT MODEL](#), Sabina-Daniela AXINTE, Gabriel PETRICA, Ionut-Daniel BARBU 687-692

**RES - RENEWABLE ENERGY AND SOURCES**

- RES 1 17 [IMPACT OF WIND FARM AND THYRISTOR-SWITCHED SERIES CAPACITORS IN VOLTAGE ACTIVE AND REACTIVE POWER IN NORMAL CONDITION OF NETWORK](#), Milad GHEYDI, Payam FARHADI, Sajjad BAGHERI, Atieh HEMATIZADEH 693-698
- RES 2 20 [EFFECT OF RAPESEED BIODIESEL B20 ON COMBUSTION CHARACTERISTICS AND EMISSIONS OF DI DIESEL ENGINE](#), Mohanad ALDHAIHAWI, Radu CHIRIAC, Viorel BADESCU 699-702
- RES 3 25 [THE USE OF ANN TO SUPERVISE THE PV MPPT BASED ON FLC](#), Ammar Ghalib Al-GIZI, Aurelian CRACIUNESCU, Sarab Jwaid Al-CHLAIHAWI 703-708
- RES 4 34 [PV CELLS I-V CHARACTERISTIC. EXPLICIT EQUATION WITH THREE PARAMETERS AND ITS SIMPLIFIED FORMS](#), Mircea TACIUC 709-714
- RES 5 42 [EFFICIENCY ASSESSMENT OF AN URBAN AREA GRID CONNECTED PV POWER PLANT](#), Lucia-Andreea EL-LEATHEY, Adrian NEDELICU, Rareş-Andrei CHIHAI, Gabriela OPRINA, Sergiu NICOLAIE, Dorian MARIN 715-720
- RES 6 82 [ELECTRIC STORAGE DATABASE FOR SUBSTATION INTEGRATION](#), Marta Maria STURZEANU, Ana Ruxandra TOMA, Ana-Maria DUMITRESCU 721-726
- RES 7 100 [IMPACT OF PHOTOVOLTAIC POWER PLANTS ON POWER SYSTEM LOSSES](#), Lucian Ioan DULĂU, Dorin BICĂ, Karoly RONAY 727-730
- RES 8 114 [EFFECTS OF BYPASS DIODE CONFIGURATIONS ON SOLAR PHOTOVOLTAIC MODULES SUFFERING FROM SHADING PHENOMENON](#), Minh Quan DUONG, Hung Le KIM, Thi Sen DINH, Marco MUSSETTA, Gabriela Nicoleta SAVA 731-735
- RES 9 117 † [MODELLING OF OPERATION PMSG BASED ON FUZZY LOGIC CONTROL UNDER DIFFERENT LOAD CONDITIONS](#), Altan GENCER 736-739
- RES 10 123 [VARIABLE GAIN PI WITH FRACTIONAL ORDER FOR DOUBLY FED INDUCTION GENERATOR USED IN A CHAIN OF WIND POWER CONVERSION](#), Philibert Fanambintsoa ANDRINIRINAIMALAZA, Tsiory Patrick ANDRIANANTENAINA, Nirinarison Jean RAZAFINJAKA 740-745
- RES 11 145 [AERATION PROCESS INFLUENCE OVER THE OPERATION OF A SMALL HYDRO TURBINE N GENERATOR UNIT](#), 746-751

- RES 12 151 [ANALYZING THE HEAT AND EXERGY TRANSFER IN STEAM GENERATORS FOR CONCENTRATED SOLAR PLANTS WITH MOLTEN SALT IN THE PRIMARY CIRCUIT.](#) 752-757  
*Victor-Eduard CENUȘĂ, Florin-Niculae ALEXE, Mihaela NORIȘOR*
- RES 13 157 [TRANSIENT STABILITY ANALYSIS OF THE TRANSMISSION SYSTEM CONSIDERING THE INITIAL STEADY STATE RESULTS.](#) 758-763  
*Ebru TAVUKCU, Belgin Emre TIRKAY*
- RES 14 174 [A SIMPLE METHOD TO ASSESS THEORETICAL HYDROPOWER POTENTIAL OF A RIVER.](#) 764-767  
*Daniela Elena GOGOAȘE NISTORAN, Davide ABDELAL, Cristina Sorana IONESCU, Ioana OPRIȘ, Sorina COSTINAȘ*
- RES 15 182 [IMPROVEMENT OF POLYCRYSTALLINE SOLAR CELLS OPERATION UNDER LOW SOLAR RADIATION CONDITIONS BY USING ZNO NANOSTRUCTURED MATERIALS.](#) 768-773  
*E. CHIȚANU, L. PĂESLARU-DĂNESCU, L. A. EL-LEATHEY, D. MARIN, R. A. CHIHAI, C. A. BĂBUȚANU, V. MARINESCU, B. G. SB-RCEA*
- RES 16 191 [ANALYSIS OF A PHOTO-VOLTAIC-THERMAL PANEL USING COMSOL AND SIMULINK/SIMSCAPE TOOLS.](#) 774-777  
*Valeriu BOSTAN, Gabriel COLT, Tiberiu TUDORACHE, Sanda Victorin PATURCA, Ionel BOSTAN*
- RES 17 197 [IMPROVEMENT OF SOLAR RADIATION ABSORPTION OF A PV PANEL USING A PLANE LOW CONCENTRATION SYSTEM.](#) 778-781  
*Valeriu BOSTAN, Tiberiu TUDORACHE, Gabriel COLT*
- RES 18 211 [POWER POINT TRACKING IN PHOTOVOLTAIC SYSTEMS BY SLIDING MODE CONTROL.](#) 781-785  
*Payam FARHADI, Mahsa Sedaghat, Shokoufeh SHARIFI, Bahman TAHERI*
- RES 19 218 [PV SYSTEM INTEGRATION IN BUILDINGS- AN ENERGY AND ECONOMIC CASE STUDY.](#) 786-790  
*Alessandro CIOCIAI, Valentin Adrian BOICEA, Agostino DEMATTEIS, Paolo DI LEO, Francesco GIORDANO, Filippo SPERTINO*
- RES 20 219 [MICROGRIDS OPERATION IMPROVEMENT USING STORAGE TECHNOLOGIES.](#) 791-796  
*Ramona VATU, George SERITAN, Oana CEAKI, Monica MANCASI*
- RES 21 220 [ANALYSIS OF POWER QUALITY IMPROVEMENT IN SMART GRIDS.](#) 797-801  
*Oana CEAKI, George SERITAN, Ramona VATU, Monica MANCASI*
- RES 22 229 [ANALYSIS OF POWER QUALITY ISSUES RAISED BY PV GENERATION AND E-PARKING STORAGE CAPACITIES IN UPB SMART GRID ENVIRONMENT.](#) 802-807  
*Radu PORUMB, Ștefan GHEORGHE, George DARIE, Tudor BOBOC*
- RES 23 232 [TEMPERATURE INFLUENCE ANALYSIS ON THE HYSTERESIS OF A PARALLEL CONNECTION OF LFP BATTERY CELLS.](#) 808-811  
*Bogdan-Adrian ENACHE, Luminita-Mirela CONSTANTINESCU*

## SIMOP - SIMULATION AND OPTIMIZATION

SIMOP 1	68	<a href="#"><u>QUALITATIVE AND QUANTITATIVE STUDY OF GAS AND PSO BASED EVOLUTIONARY INTELLIGENCE FOR MULTILEVEL THRESHOLDING.</u></a>	812-817
		<i>Zhengmao YE, Yongmao YE, Hang YIN</i>	
SIMOP 2	71	<a href="#"><u>AIRFLOW ESTIMATION OF A LABORATORY ANEMOMETER VIA FISHER STATISTICAL TECHNIQUE.</u></a>	818-822
		<i>M. Saeed EBRAHIMI SAADABADI, Ehsan YOUSEFI, Kiyan KHALOOZADEH, Hamid KHALOOZADEH</i>	
SIMOP 3	77	<a href="#"><u>QUANTUM-BEHAVED PSO WITH NEIGHBORHOOD STRATEGIES FOR SOLVING NDET INVERSE PROBLEMS.</u></a>	823-827
		<i>Laurentiu-Cristian DUCĂ, Daniel IOAN, Cornel POPESCU</i>	
SIMOP 4	103	<a href="#"><u>70MHZ OSCILLATOR CIRCUIT BASED ON CONSTANT THRESHOLD INVERTERS.</u></a>	828-831
		<i>Alexandru Mihai ANTONESCU, Lidia DOBRESCU</i>	
SIMOP 5	111	<a href="#"><u>MONITORING THE PARAMETERS OF THE ELECTRONICS DEVICES TO ASSURE THE PREDICTIVE MAINTENANCE OF EQUIPMENT.</u></a>	832-835
		<i>George Robert SISMAN, Mihai OPROESCU</i>	
SIMOP 6	125	<a href="#"><u>ON THE INFLUENCE OF NETWORK IMPEDANCE ON FLICKER MEASUREMENTS.</u></a>	836-841
		<i>Ionel URDEA MARCUS, Costin CEPISCA</i>	
SIMOP 7	183	<a href="#"><u>ANALYSIS OF PIEZOELECTRIC STRUCTURES BASED ON NEW MODIFIED PZT ZIRCONATE TITANATE DESIGNED FOR ENERGY HARVESTING APPLICATIONS.</u></a>	842-847
		<i>L. PEȘLARU-DĂNESCU, M. MOREGA, A. I. DUMITRU, J. PINTEA</i>	
SIMOP 8	192	<a href="#"><u>TRANSIENT PHENOMENA IN POWER TRANSFORMERS THEORETICAL AND PRACTICAL APPROACH.</u></a>	848-854
		<i>Paul Mihai MIRCEA, Mircea Alexandru BORUZ, Ion MIRCEA</i>	
SIMOP 9	199	<a href="#"><u>TRANSMISSION EXPANSION PLANNING OPTIMIZATION FOR IMPROVING RES INTEGRATION ON ELECTRICITY MARKET.</u></a>	855-859
		<i>Catalina Alexandra SIMA, George Cristian LAZAROIU, Virgil DUMBRAVA</i>	
SIMOP 10	200	<a href="#"><u>COMPARATIVE PREDICTION OF SINGLE AND DOUBLE DIODE PARAMETERS FOR SOLAR CELL MODELS WITH FIREFLY ALGORITHM.</u></a>	860-865
		<i>Mohamed LOUZAZNI, Ahmed KHOUYAI, Khalid AMECHNOUE, Aurelian CRĂCIUNESCU, Marco MUSSETTA</i>	
SIMOP 11	206	<a href="#"><u>A NOVEL VIBRATION ABSORBER WITH VARIABLE STIFFNESS CONTROLLED BY ELECTROMAGNETIC FORCE.</u></a>	866-871
		<i>Tudor SIRETEANU, Ana Maria MITU, Gheorghe GHITA</i>	
SIMOP 12	213	<a href="#"><u>DESIGN AND OPTIMIZATION OF THE COOLING PROCESS TO RAPID CONTROL A SMA-BASED WAVE GENERATOR.</u></a>	872-875
		<i>Ion-Cornel MITULETU, Alexandru BORZA, Viorel Ionut BIZAU</i>	
SIMOP 13	237	<a href="#"><u>CONSUMPTION PROFILE OPTIMIZATION IN SMART CITY VISION.</u></a>	876-881
		<i>Mihaela TELICEANU, George Cristian LAZAROIU, Virgil DUMBRAVA</i>	
SIMOP 14	244	<a href="#"><u>MULTI-OBJECTIVE RFID NETWORK PLANNING</u></a>	882-887

WITH PROBABILISTIC COVERAGE MODEL BY  
GUIDED FIREWORKS ALGORITHM

*Viktor TUBA, Adis ALIHODZIC, Milan TUBA*

**ST - SENSORS AND TRANSDUCERS**

- ST 1 53 [REMOTE MONITORING SYSTEM DESIGN FOR PHOTOVOLTAIC PANELS](#) 888-891  
*Ersan KABALCI, Yasin KABALCI*
- ST 2 113 [PREDICTING TEMPERATURE IN THERMOMETERS WITH HIGH RESPONSE TIME](#) 892-897  
*Ioana OPRIȘ*
- ST 3 126 [AUTOMATIC SYSTEM FOR MONITORING OF STRATEGIC INFRASTRUCTURE USING WIRELESS SENSORS](#) 898-902  
*Mihail-Florin STAN, Adela-Gabriela HUSU, Octavian IONESCU*
- ST 4 202 [AUTOMATION HEATING AND PUMPING FOR WATER USING ZELIO PLC](#) 903-908  
*Corina M. DINIȘ, Gabriel N. POPA, Angela IAGĂR*

**VI - VIRTUAL INSTRUMENTATION**

- VI 1 143 [POWER QUALITY ANALYZER, GHEORGHE-EUGEN SUBTIRELU, MIRCEA DOBRICEANU](#) 909-914  
*Mihaïta LINCĂ*
- VI 2 178 [SYNTHESIS AND DESIGN OF VIRTUAL MEASUREMENT SYSTEM FOR INVESTIGATION ON PHOTOVOLTAIC MODULES](#) 915-918  
*Ivaylo S. STOYANOV, Teodor B. ILIEV, Grigor Y. MIHAYLOV, Elena P. IVANOVA*
- VI 3 222 [USE OF PEDAGOGICAL AGENTS TO BUILD MULTIPLE CHOICE EQUATIONS FOR AN ELECTRIC WORKSHOP BASED ON LABVIEW](#) 919-924  
*Sorin Dan GRIGORESCU, Costin CEPIȘCĂ, Sanda Victorinne PAȚURCĂ, Octavian Mihai GHITA, George SERITAN, Florin ARGATU, Felix ADOCHIEI, Cosmin BANICA*
- VI 4 242 [A SMART GRID MODEL FOR HIGH PERFORMANCE COMPUTING SERVICE](#) 925-928  
*Alexandru Mihai VULCAN, Maximilian NICOLAE*