

IEEE EUROCON 2009

**International Conference Devoted to
the 150th Anniversary of Alexander
Popov**

**St. Petersburg, Russia
18 – 23 May 2009**

Pages 1 - 687



IEEE Catalog Number: CFP09EUR-PRT
ISBN: 978-1-4244-3860-0

**Copyright © 2009 by the Institute of Electrical and Electronic 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 publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP09EUR-PRT
ISBN 13:	978-1-4244-3860-0
Library of Congress No.:	2009900519

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

TABLE OF CONTENTS

Periodic Transmission Line Bandstop Filter	1
<i>J. Malherbe</i>	
Technical Guidelinds In Numerical Calculation Of The Scattering Parameters In Filled Three Dimensional Waveguide Structures	5
<i>F. Fesharaki, R. Safian, H. R. Pour, G. Askari, H. Mirmohammad-Sadeghi</i>	
Double-band Circularly-polarized Antenna For GLONASS-GPS Applications	11
<i>M. V. Chufarov, L. A. Lvova, A. V. Babushkin</i>	
A New High-Power, Dual-Band, E-plane, Ferrite Circulator	17
<i>H. Razavipour, G. Askari, F. Fesharaki, H. Mirmohammad-Sadeghi</i>	
The Least-squares Boundary Residual Method in the Antenna Analysis.....	23
<i>A. M. Jovanovic, S. P. Jovicevic</i>	
Effective Time-domain Antenna Modeling Based on Impulse-matching Method	30
<i>I. Hertl, M. Strýcek</i>	
Multi-band and Tunable Multi-band Microwave Resonators and Filters Based on Cascaded Left/Right-handed Transmission Line Sections	36
<i>P. Kapitanova, D. Kholodnyak, S. Humbra, R. Perrone, J. Mueller</i>	
Adaptive WiMAX Subscriber Anetntna for 2.6 GHz and 3.45 GHz	43
<i>P. Ritosa, T. Korosec, J. Tratnik, L. Naglic, B. Batagelj</i>	
Reducing the Intermodulation Distortion in OFDM Systems by Feedforward Linearization Technique.....	49
<i>A. Ç. Yapıcı, C. Çiflikli</i>	
Phase Velocity Measurement of Surface Wave Propagating Along a Goubau-Line: Wire Resonator Method.....	54
<i>A. O. Salman</i>	
Modelling of Tunable Bulk Acoustic Resonators and Filters with Induced Piezoelectric Effect in BSTO Film in a Wide Temperature Range	61
<i>P. A. Turalchuk, I. B. Vendik</i>	
Electromagnetic Field Evaluation on an Antennas Shared Site.....	67
<i>V. Nitu, G. Lojewski, S. Nitu</i>	
Propogation of Transverse-Magnetic Waves in a Waveguide with Anisotropic and Magnetoactive Modulated Insert	73
<i>E. A. Gevorkyan</i>	
Varactor-loaded Microstrip Patch Antenna With Frequency-tuning Capability and Complete Polarization Diversity.....	77
<i>T. Korosec, P. Ritosa</i>	
Real-time Screening System Using Living Cells for Chemosensitivity Testing	83
<i>B. Becker, S. Etzbach, M. Schmidhuber, D. Grundl, F. Ilchmann, H. Grothe, B. Wolf</i>	
Development of a Multiparametric Handheld Biosensor for Use in Mobile Applications.....	90
<i>M. Schmidhuber, B. Becker, J. Wiest, B. Wolf</i>	
A Method for Noise Reduction in Speech Signal Based on Singular Value Decomposition and Genetic Algorithm	98
<i>B. Nazari, S. M. A. Sarkmi, P. Karimi</i>	
Reproducibility of "BUDA" Multisensor System for Gait Analysis.....	104
<i>M. Djuric-Jovicic, I. P. Milovanovic, N. S. Jovicic, D. B. Popovic</i>	
Construction of Growth Models Using Linear Differential Equations	108
<i>M. Greitans, E. Hermans, A. Greitane</i>	
Content Based Image Retrieval in Medical Applications: An Improvement of the Two-level Architecture.....	114
<i>K. Trojacanec, I. Dimitrovski, S. Loskovska</i>	
Biotechnical Systems for Group Researches of the Functional State of Operators	118
<i>E. P. Popechitelev, K. N. Bolsunov</i>	
Microwave Diagnostics of Some Bio-medical Solutions Using Cylindrical Resonator	124
<i>B. Kapilevich, A. Yahalom, B. Litvak, D. Mihaeli</i>	
Design of Ultrasonic Motion Analysis System for Estimating Segment's Stabilization During Dynamic Condition	130
<i>N. Hemmati, P. Rangraz</i>	
Complex Biomedical System with Biotelemetric Monitoring of Life Functions	134
<i>O. Krejcar, D. Janckulik, L. Matalova</i>	
Optimization of Multi-pad Surface Electrode: Selective Stimulation of Wrist	138
<i>L. Z. Popovic, N. M. Malesevic, M. B. Popovic</i>	

A Forth Order Finite Difference Scheme for Pennes' Bioheat Transfer Equation in a Three Dimensional Triple-layered Skin Structure with Multilevel Blood Vessel	142
<i>H. Shagoftasbi</i>	
Highly Sensitive Biomedical Amplifier With CMRR Calibration and DC-Offset Compensation.....	148
<i>W. Galjan, K. M. Hafkemeyer, J. M. Tomasik, F. Wagner, W. H. Krautschneider, D. Schroeder</i>	
Using Approximation Functions in Analysis of Trehalose Intracellular Concentration	152
<i>L. D. Milici, S. Pohoata, M. R. Milici</i>	
FPGA Implementation of Fully Parallel Fast MDCT Algorithm	157
<i>M. Pohronska, P. Malik, M. Balaz</i>	
Optic Disc Positioning and Blood Vessels Extraction on Eye Fundus.....	163
<i>E. Ardizzone, R. Pirrone, O. Gambino</i>	
Research of Microwave-bandwidth P-I-N Photodetectors	169
<i>M. E. Belkin, N. A. Dezhkovski</i>	
Modeling of Current Crowding for On-chip Multi Turn Differential-spiral Inductors	173
<i>C. Lin, T. S. Kalkur</i>	
Dual Feedback Low Noise Amplifier for Ultra Wideband Application	178
<i>E. V. Balashov, A. S. Korotkov</i>	
A New CMOS Current Differencing Transconductance Amplifier (CDTA) and It's Biquad Filter Application.....	184
<i>F. Kacar, H. Kuntman</i>	
Systematic Analysis of the Electric Power and Magnetic Energy for Linear Electric and Magnetic Circuits with Modifiable Parameters.....	192
<i>H. Andrei, F. Spinei, I. Caciula, P. C. Andrei</i>	
Current-mode CMOS Pipelined ADC	200
<i>S. R. Krishna, M. S. Baghini, J. Mukherjee</i>	
Design of a Current-mode Analog CMOS Fuzzy Logic Controller.....	206
<i>V. F. Dinavari, A. Khoei, K. H. Hadidi, M. Soleimani, H. Mojarrad</i>	
Cascade Configuration of Inverted T-type LC EMI Chip Filters and It's EM Simulation.....	213
<i>V. Maric, A. Menicanin, L. Zivanov, O. Aleksic</i>	
Pattern Recognition Using N-input Neuron Circuits Based on Floating Gate MOS Transistors	219
<i>F. Keles, T. Yildirim</i>	
RF Small Signal Avalanche Characterization and Repercussions on Bipolar Transistor Circuit Design	225
<i>V. Milovanovic, R. van der Toorn</i>	
Analysis of Switching Activity in DSP Signals in the Presence of Noise	229
<i>A. Havashki, L. Lundheim, P. G. Kjeldsberg, O. Gustafsson, G. E. Øien</i>	
Analysis and Design of a 3-5 GHz Ultra-wideband CMOS Low-noise Amplifier.....	235
<i>B. Ansari, H. Shamsi</i>	
Computational Circuits Using Bulk-driven MOS Devices	241
<i>C. Popa</i>	
Curvature-corrected Voltage Reference Using FGMOs Devices	247
<i>C. Popa</i>	
Time Domain Analysis of Switching Circuits by Using the Simulink-based Co-simulation.....	251
<i>G. Acciani, F. Vacca, S. Vergura</i>	
The Gauss Elimination From the Circuit Theory Point of View: Diagonal Nodal Equivalent	259
<i>S. Vergura</i>	
Neuron Adaptive Control of a Shunt Active Power Filter and Its Realization of Analog Circuit	267
<i>K. Rahimi, M. Pakdel, M. R. Yousefi</i>	
A New High Speed Voltage Mode MAX-MIN Circuit for Fuzzy Applications	273
<i>H. Mojarrad, A. Naderi, H. Hajghassem, V. D. Faghih, A. Khoei, Kh. Hadidi</i>	
Four-quadrant CMOS Analog Multiplier Based on New Current Squarer Circuit with High-speed	277
<i>A. Naderi, H. Mojarrad, H. Ghasemzadeh, A. Khoei, Kh. Hadidi</i>	
Multi-class Classification Using Support Vector Machines in Decision Tree Architecture.....	283
<i>G. Madzarov, D. Gjorgjevikj</i>	
Discrimination Between Different Art Types: Marbled Paper, Watercolor and Tile Images	291
<i>Z. Iscan</i>	
Unmanned Object Detection for Image Surveillance Systems	297
<i>S. Sheraizin, S. Itzikowitz</i>	
Informatization of Learning and Training in Slovenian Armed Forces	303
<i>A. Kavacic</i>	
A Measurement-based Simulation Model of a Web Cluster Representing System Application Level Dynamics	309
<i>I. Dietrich, K.-S. Hielscher, R. German</i>	
Ethnomuse: Archiving Folk Music and Dance Culture	317
<i>Matija Marolt, J. F. Vratnar, G. Strle</i>	

On Ear Biometrics.....	322
<i>B. Kocaman, M. Kirci, E. O. Gunes, Y. Cakir, O. Ozbudak</i>	
Solving Economic Dispatch Problem Using Hybrid GA-PS-SQP Method	328
<i>J. S. Alsumait, J. K. Sykulski</i>	
Data Replication Techniques with Applications to the MonALISA Distributed Monitoring System	334
<i>E.-D. Tîrsa, M. I. Andreica, A. Costan</i>	
Inefficient WiFi Adapter of Wireless Mobile Devices- Problem Solving by Artifacts Prebuffering Using Mobile Database Cache and Secured Wireless Connection.....	342
<i>O. Krejcar</i>	
Fractal Recognition of Shapes.....	348
<i>K. J. Gdawiec</i>	
Identification of Crosscutting Constraints in Metamodel-based Model Transformations	354
<i>L. Lengyel, T. Levendovszky L. Angyal</i>	
Embedded Server with Wake on LAN Function	360
<i>M. Popa, T. Slavici</i>	
Keeping Industrial Systems and Communicators Up-to-Date Using Interoperable Communicating Components and Electronic Data Sheets.....	366
<i>V. Gh. Gaitan, I. Ungurean, N. C. Gaitan, V. Popa</i>	
The Basis for Building a Business Case in Software Development, a Case Study	374
<i>R. Khajavinia</i>	
An Intelligent Web-based Voice Chat Bot.....	381
<i>S. J. du Preez, M. Lall, S. Sinha</i>	
Codifying Domain-specific Experience into Software Development Tools: an Eclipse-based Embedded Platform Development Experience	387
<i>C. Catal</i>	
Vocal Tract Length Normalization Strategy Based on Maximum Likelihood Criterion.....	394
<i>N. M. Jakovljevic, M. S. Secujski, V. D. Delic</i>	
Towards Truly Parallel Model Transformations: a Distributed Pattern Matching Approach.....	399
<i>G. Mezei, T. Levendovszky, T. Meszaros, I. Madari</i>	
Implementation of W-CDMA Cell Search on a Runtime Reconfigurable Coarse-grain Array.....	407
<i>F. Garzia, C. Brunelli, C. Giliberto, J. Nurmi</i>	
Design and Use of RFID Receiver in Food Service Activities.....	412
<i>F. Vrbancic</i>	
Synchronization of Textual and Visual Representations of Evolving Information in the Context of Model-based Development	416
<i>L. Angyal, L. Lengyel</i>	
Declarative Transformation of Arbitrary Structured Data to Ontologies.....	422
<i>S. V. Perminov, V. I. Vorobyev, A. J. Atiskov</i>	
Constrained Dynamical Surface Reconstruction from Unorganized Point Cloud	428
<i>K. Nurzynska</i>	
New Opportunities for Java ME Developers with Location API 2.0.....	434
<i>E. S. Abramov, S. V. Rogov</i>	
Improve Sub-synchronous Resonance (SSR) Damping Using a STATCOM in the Transformer Bus	440
<i>H. Khalilinia; J. Ghaisari</i>	
A Computer Model for Surge Distribution Studies in Transformer Windings	446
<i>V. Venegas, J. L. Guardado, S. G. Maximov, E. Melgoza</i>	
A Method of Obtaining of Electric Arc Model Parameters for SF6 Power Circuit Breakers	453
<i>S. Maximov, V. Venegas, J. L. Guardado</i>	
A Comparative Study of Fuel Cell Technologies and their Role in Distributed Generation	459
<i>S. Hoseinnia, S. M. Sadeghzadeh</i>	
Load Flow Analyzes of Power System of PETKIM Petrochemical AliaGa Complex	465
<i>A. C. Serrean, A. Ozdemir, S. Ilhan</i>	
Development of a Back-up Battery Management System- a Case Study in Petroleum Development Oman	470
<i>M. S. Qatan, D. M. Hepburn, C. Zhou</i>	
Technical and Economic Arguments for Using Fuel Cells in RET Power Station's Self Services Feeding	475
<i>I. Ardelean, V. Dusa, B. Lustrea, I. Borlea, D. J. Oprea</i>	
An Integrated Method for Decentralized Combined Heat and Power Planning	481
<i>S. M. Sadeghzadeh</i>	
The Peer-to-Peer Paradigm Applied to Hydrogen Energy Distribution.....	489
<i>M. Amoretti</i>	
The Design and Operation of 700MW Class Totally Air-Cooled Hydroelectric Generators	496
<i>Y. Sun, Q. Gao</i>	

Test Study for Bi-directional Thrust Bearing	504
<i>Y. Sun, Z. Wu, J. Wu</i>	
Software Tool for Power Transfer Distribution Factors (PTDF) Computing Within the Power Systems	510
<i>C. Barbulescu, S. Kilyeni, G. Vuc, B. Lustrea, R.-E. Precup, S. Preitl</i>	
Identification of Power System Model Parameters for Sliding Mode Based Load-frequency Control.....	518
<i>K. Vrdoljak, T. Radosevic, N. Peric</i>	
Application of Synchronous Static Series Compensator (SSSC) on Enhancement of Voltage Stability and Power Oscillation Damping.....	526
<i>H. Taheri, S. Shahabi, Sh. Taheri, A. Gholami</i>	
Transformer Hot Spot Temperature Assessment Terminated at Transmission Line Through a Cable Under Lightning Impulses.....	533
<i>Sh. Taheri, S. Shahabi, A. Gholami</i>	
Control Scheme for a Multiphase Matrix Converter	538
<i>J. Szczepanik, T. Sienko</i>	
Network Operation and Reconfiguration to Maximize Social Welfare With Distributed Generations.....	545
<i>M. N. Mojdehi</i>	
Distributed Generation and Competition in Electric Distribution Market	551
<i>M. A. Golkar</i>	
Design and Analysis of Line-starting 3150kW Permanent Magnet Motor	557
<i>J. B. Danilevich, V. N. Antipov, A. D. Grozov, I. Yu. Kruchinina</i>	
On the Use of Harmony Search Algorithm in Optimal Placement of Facts Devices to Improve Power System Security	563
<i>A. Kazemi; A. Parizad; H. R. Baghaee</i>	
Optimal Reactive Power Dispatch Considering TCPAR and UPFC.....	570
<i>S. M. Sadeghzadeh, A. H. Khazali, S. Zare</i>	
Analysis and Design of Ultracapacitor-boosted Back-up Power Supply for Tramcars	576
<i>H. Hoimaja, D. Vinnikov, T. Jalakas</i>	
Wind Turbine as an Energy Fuel Saver- a Case Study for Remote Area in Oman.....	583
<i>A. Malik, A. H. Al-Badi</i>	
Grid Integration of Wind Power PLants in Congested Line	589
<i>M. Klarić, I. Kužle</i>	
Multi-input Small-power Renewable Energy Supply System Realized by Special Power Electronics.....	595
<i>H. H. Weiss, K. Ince, G. St. Zinoviev</i>	
Design Considerations of High-speed Permanent Magnet Machines. Evaluating Approach.....	601
<i>I. Yu. Kruchinina, V. N. Antipov, A. V. Ivanova, Y. Ph. Khozikov</i>	
The Behavior of Thyristor Switched Capacitor (TSC) Installed in an Infinite Bus System	607
<i>A. Gelen, T. Yalcinoz</i>	
Methodology for the Detection of Partial Discharges in Power Transformers Using the Acoustic Method.....	611
<i>C. H. B. Azevedo, A. P. Marques, C. J. Ribeiro</i>	
Consideration of Load Forecast Uncertainty in Calculating the Optimal Bidding Strategy of Generating Companies	615
<i>M. Kabiri, S. Akbari, N. Amjadiy, S. A. Taher</i>	
Short Term Daily Load Forecasting Using Recursive ANN	624
<i>D. Jigoria-Oprea, B. Lustrea, I. Borlea, S. Kilyeni, P. Andrea, C. Barbulescu</i>	
Ecological Solutions for Power Switching Apparatus	630
<i>S. Nitu, D. Pavelescu, P. Anghelita, M. Lungu, S. Gabrilu</i>	
Congestion Risk Management Using the Probably Value of Congestion and the Optimization of the Operating Regimes Case Study for Western Part of Romanian Power System	636
<i>D. M. Pop, S. Kilyeni, P. Andea, C. Barbulescu</i>	
A Voltage Reference Design for Three-Phase Boost Inverter	642
<i>B. Koushki, J. Ghaisari</i>	
Bridge Stresses and Design in IPM Machines	647
<i>R. D. Bremner</i>	
A FEM Investigation on the Synchronous Reluctance Machine Rotor Geometry with Just One Flux Barrier as a Guide Toward the Optimal Barrier's Shape	655
<i>R. R. Moghaddam, F. Magnussen, C. Sadarangani</i>	
Displacement Inductive Sensor: Simulation Tool Algorithm	663
<i>S. M. Djuric, M. S. Damnjanovic, L. F. Nagy, L. D. Zivanov, N. M. Djuric</i>	
Study on the Hunting in High Speed Hysteresis Motors Due to the Rotor Hysteresis Material	669
<i>H. R. Soroush, A. R. Rahmati, H. Moghbelli, A. Vahedi, H. Niasar</i>	
Modeling, Simulation and Implementation of Four-switch, Brushless DC Motor Drive Based on Switching Functions	674
<i>A. H. Niasar, H. Moghbelli, A. Vahedi</i>	

Solid Rotor End Effects- Analytic and Experimental Results for High-power High-speed Machines	680
<i>J. J. Pyrhonen, J. K. Nerg, T. Aho, P. T. Kurronen</i>	
The Heat Conducting Analysis of Transient Temperature Field in IMCCR With Discontinuous Blocked Rotor Under Different Structure	688
<i>C. Junci, L. Weili, H. Feiyang, C. Peng, S. Jiafeng</i>	
Operation Features of the Improved Induction Motors in the Variable Speed Drive of Pump Units	695
<i>O. O. Muravleva, PJ. V. Tyuteva</i>	
Hybrid Analytical- FEM Analysis of Single Phase Permanent Magnet Synchronous Motor	701
<i>L. Petkovska, G. Cvetkovski</i>	
Field Oriented Control Drives for Naval Mechanisms	709
<i>C. Sorandaru, S. Musuroi, M. Svoboda, V.-N. Olarescu, D. Popovici</i>	
Dual Inverter Space Vector Modulation with Power Balancing Capability	713
<i>G. Grandi, D. Ostojic</i>	
Modified Motor Mode Represented on the Basis of the Generalized Machine Theory for Modeling	721
<i>Y. N. Petrenko, V. P. Belyaev</i>	
On Fault Tolerance Increase of Switched Reluctance Machines	726
<i>L. Szabo, M. Ruba</i>	
Similarities in Development of Digital Computers and Mobile Robots	732
<i>A. Aksamovic, M. Hebibovic, S. Konjicija</i>	
Dissipationless Loop of Magnetic Flux as a Basis for Designing a New Type of Electric Machines According to the Slot Cutting Conception	738
<i>K. Ziolko</i>	
Minimizing Skin Effect in Random Wound High Speed Machine Stator	744
<i>H. M. Hamalainen, J. J. Pyrhonen, J. Puranen</i>	
Electric Energy Recovery System Efficiency in a Hydraulic Forklift	750
<i>T. A. Minav, L. I. E. Laurila, P. A. Immonen, M. E. Haapala, J. J. Pyrhonen</i>	
Automatic Synchronization Unit for the Parallel Operation of Synchronous Generators	758
<i>E. Bekiroglu, A. Bayrak</i>	
Improved Voltage Oriented Control of AC-DC Converter Under Balanced and Unbalanced Grid Voltage Dips	764
<i>M. Bobrowska, K. Rafal, H. Milikua, M. P. Kazmierkowski</i>	
Estimate and Taking Into Account Change of Steel Losses in Induction Motors in Process of Their Aging	769
<i>V. V. Prus, M. V. Zagirnyak, I. A. Kolotylo, D. Miljavec</i>	
Design of Damper Windings for Direct-On-Line Permanent Magnet Synchronous Generators	775
<i>K. Kamiev, J. Nerg, J. Pyrhonen</i>	
Distance Control of Electric Drives and Power Converters Via Internet: Concept of E-laboratory	783
<i>V. Vodovozov, Z. Raud</i>	
Identification of Mechanical Load for Electrical Drives Commissioning - Labelling Machine Case Study	789
<i>L. Peretti, M. Zigliotto</i>	
Self-tuning Adaptive Sensorless Induction Motor Drive with the Stator Current-based MRAS Speed Estimator	796
<i>M. Dybkowski, T. Orlowska-Kowalska</i>	
Converter-fed Induction Motor Diagnosis Using Instantaneous Electromagnetic Torque and Power Signals	803
<i>C. T. Kowalski, M. Wolkiewicz</i>	
Mitigating Ferroresonance in Coupling Capacitor Voltage Transformers with Ferroresonance Suppressing Circuits	809
<i>S. Shahabi, D. Babazadeh, R. E. Shirvani, M. Purrezagholi</i>	
A Novel Two-quadrant Soft-switched Converter	815
<i>M. R. Yousefi, K. Rahimi, M. Pakdel</i>	
Brushless Torque Motors Quality Level Indexes for Servo Drive Applications	819
<i>A. G. Mikerov</i>	
Performance, Limitations, and Control of a High-speed Tooth Belt Drive in a Motion Control Application	827
<i>S. Saarakkala, M. Haapala, M. Jokinen, M. Niemela, R. Pollanen, J. Pyrhonen</i>	
Torque Ripple Minimization in Permanent Magnet Synchronous Motor Magent Demagnetization	835
<i>C. Chen, X. Xiao</i>	
A New Resonant Step-up Converter Based on Unidirectional Switches	841
<i>M. Jabbari, H. Farzanehfard, S. Farhangi</i>	
The Magnetic Noise of Three-phase and Single-phase Induction Motors with Squirrel Cage Rotors	845
<i>I. Peter, G. Scutaru, R. M. Ionescu</i>	
Component Minimized AC/DC/AC Converter With DC-link Capacitors Voltages Balancing	853
<i>K. Rafal, M. Bobrowska, J. A. Barrena, M. P. Kazmierkowski</i>	
Modelling and Simulation of a Parallel Hybrid Drive System for Mobile Work Machines	859
<i>P. Immonen, L. Laurila, M. Rilla, J. Pyrhonen</i>	

Calculation of Electric and Magnetic Field Strengths Produced by a Direct Current Traction Network.....	865
<i>S. M. Apollonskii, A. N. Gorksy</i>	
Weight Reduction of Permanent Magnet Disc Motor for Electric Vehicle Using Genetic Algorithm Optimal Design Procedure	873
<i>G. V. Cvetkovski, L. B. Petkovska</i>	
Identification of the Electrical Power System Developement for Creating a Control Model as Artificial Genetic Code	881
<i>J. R. Tchorzewski</i>	
Robust PID Controller Design Using BMI	887
<i>D. Rosinova, V. Vesely</i>	
Visual Based Lane Following for Non-holonomic Mobile Robot.....	893
<i>A. Rezoug, M. S. Djouadi</i>	
Extended Stochastic Approximation Algorithms for Systems Parameters Identification	899
<i>K. R. Chernyshov</i>	
Delayed Feedback Control as Applied to Active Suspension of a Ground Vehicle	907
<i>Y. Kucukefe, A. Kaypmaz</i>	
Approximate Computation of H2 Norm for Linear Periodic Systems Based on Integral Equation Method.....	913
<i>B. P. Lampe, E. N. Rosenwasser, M. G. Chernyaev</i>	
Robust UDE-Based Control of Uncertain Nonlinear State-Delay Systems.....	919
<i>A. Kuperman, Q.-C. Zhong</i>	
Robust Decentralized PID Controller Design: A Case Study	925
<i>D. Rosinova, A. Kozakova</i>	
Fuzzy Variable Structure Control Strategy for Stable Nonlinear Dynamic System	933
<i>M. A. A. Morsy, M. S. A. Moteleb, H. T. Dorrah</i>	
Low-Order Robust Regulator Synthesis, Based on Linear-Matrix Correlations	939
<i>V. N. Pilishkin</i>	
A Simple Method for Estimation the Time Delay Based on Damped Oscillations	945
<i>N. Salkanovic, Z. Juric, B. Perunicic, H. Sehovic</i>	
Stability Analysis Approach to a Class of Fuzzy Controlled Nonlinear Time-varying Systems	949
<i>R.-E. Precup, M. L. Tomescu, S. Preitl, E. M. Petriu, S. Kilyeni, C. Barbusescu</i>	
Sliding Mode Control of Lorenz Chaotic System on a Moving Fuzzy Surface	955
<i>M. F. Mohammad, A. Alireza, M. Majid, M. Hamidreza</i>	
FPGA-based Controllers for Switching Converters.....	962
<i>K. Jezernik</i>	
Training Practical Control Skills in Robot Design Project.....	968
<i>A. Friesel</i>	
Controll of Processes with an Integrator and Long Dead-time: The Smith Predictor vs. Virtual Sensor	975
<i>A. Dementjev, D. Stein, K. Kabitzsch</i>	
A Control System-based Reduction of Electromagnetic Torque Ripples in a VSI-fed Poly-phase PMSM with Non sinusoidal Back-EMF	981
<i>M. Pronin, O. Shonin, A. Vorontsov, G. Gogolev</i>	
An Efficient Car Like-mobile Robot Design.....	987
<i>W. M. El-Medany, A. M. Abuash, N. M. Abuash</i>	
UPFC Controller Design Using QFT Method in Electric Power Systems	993
<i>S. A. Taher, S. Akbari, R. Hematti, A. Abdolalipour</i>	
Sequential Stable Model Predictive Control Design.....	1002
<i>V. Vesely</i>	
Role of Prof. V.P. Vologdin and His School in Radio and Electrotechnology	1007
<i>V. S. Nemkov</i>	
Evolution of the Voice Networks: Historic Perspective from a Developing Nation	1015
<i>A. C. Odinma</i>	
Tesla Against Marconi: The Dispute for the Radio Patent Paternity	1022
<i>P. Brenner</i>	
Swedish Induction Motors Made in the USSR	1030
<i>S. J. A. Eriksson</i>	
Crimean Historiography of A. S. Popov's Activity	1035
<i>P. P. Yermolov</i>	
Electric Egypt: Khufu's Maser, The Denderah Lamps and Other Energy Features in Acient Egypt	1040
<i>P. Brenner, V. Krasnoholovets</i>	
History and Technology - Mutual Impacts.....	1048
<i>J. Baal-Schem</i>	

The Old Man from Naharaim: How a Russian Revolutionary Became the Electricity Pioneer of Israel	1052
<i>P. Brenner</i>	
A. S. Popov - The Inventer of a First Crystal Radio	1057
<i>V. M. Pestrikov</i>	
A. S. Popov - Scientist, Teacher, Inventor of Radio (To The 150 Annivesary From The Birth)	1065
<i>L. I. Zolotinkina</i>	
A. S. Popov's Foreign Contacts	1071
<i>L. I. Zolotinkina, M. A. Partala, V. A. Urvalov</i>	
Additional Findings Concerning Activity of Professor Popov in the Development of Wireless Communication	1077
<i>O. G. Vendik</i>	
History of Radio Navigation in Siberia	1081
<i>V. I. Kokorin, V. N. Bondarenko, R. G. Galeev</i>	
History and Nowadays of the A. S. Popov Central Museum of Communications	1087
<i>L. N. Bakayutova</i>	
Shilling's Pioneering Contribution to Practical Telegraphy	1092
<i>N. A. Borisova</i>	
Neuro-Fuzzy Based Compensation Technique for Capacitive Pressure Sensors	1097
<i>A. Salighehdar, J. Ghaisari</i>	
PeSoV - Pervasive Software-Oriented Vehicles	1103
<i>A. G. Foina, A. El-Deeb, J. Ramirez-Fernandez</i>	
Turbidimeters with Variable Gauge Length	1109
<i>V. S. Fetisov, O. V. Melnichuk</i>	
A Rogowski Winding with High Voltage Immunity	1115
<i>A. Mariscotti</i>	
Quaterion-Based Delay Time Determination for Kinematic Optical Measuring Systems	1120
<i>C. Depenthal</i>	
Adaptive Neuro-fuzzy Inference System for Bearing Fault Detection in Induction Motors Using Temperature, Current, Vibration Data	1126
<i>M. S. Yilmaz, Emine Ayaz</i>	
Obtaining Analytic Dependences of Diode Capacitance Bridge Output Voltage on Transducer Parameters	1132
<i>M. V. Zagirnyak, D. V. Polovinka, B. I. Nevezlin</i>	
Applicability of the LASPs in the Electric-power Industry	1138
<i>E. Banovac, I. Kuzle</i>	
Real-time Acquisition of Wideband Signals Data Using Non-uniform Sampling	1144
<i>I. Homjakovs, M. Greitans, R. Shavelis</i>	
Highlights of Low Cost RT Process Control Using WinPAC by Wireless Network	1150
<i>O. Krejcar, P. Konarik, M. Tutsch</i>	
Software for Camera Calibration and 3D Points Reconstruction in Stereophotogrammetry	1155
<i>P. Stancik, V. Ricny</i>	
Bulk Resistance Decay in CdTe	1162
<i>A. Andreev, L. Grmela, J. Sikula, M. Chvatal, M. Raska</i>	
Comparitive Study of Interferometric and Noninterferometric Measurement Schemes for Fiber Nonlinear Coefficient Measurement	1166
<i>B. Batagelj, J. Tratnik</i>	
Generation of Electrical Field in Rotatable Piezoactuator with Butt End Stimulation	1174
<i>Y. I. Sepp, V. S. Shestakov</i>	
A General Purpose Reconfigurable MEMS-based Attenuator for Radio Frequency and Microwave Applications	1182
<i>J. Iannacci, F. Giacomozzi, S. Colpo, B. Margezin, M. Bartek</i>	
A New Nanoelectric Based Approach for Efficient VLSI Realization of SHA-512 Algorithm	1191
<i>A. Shamoradi, M. Masoumi</i>	
Reconfigurable Audio Output STage in 45nm Process for Single Speaker Mobile Application	1199
<i>F. Neri, J.-C. Bini, A. Angeli</i>	
Suppression of Corner Effects in Triple-gate Bulk FinFETs	1204
<i>M. Poljak, V. Jovanovic, T. Suligoj</i>	
Basic Figures of Merit for a 1.575 GHz Low Noise Amplifier in 0.35um SiGe BiCMOS Technology	1210
<i>A. Djugova, M. Videnvovic-Misic</i>	
A Silver Nanowire Based Gas Ionization Sensor Eurocon 2009	1216
<i>N. Azmoodeh, N. Chivu, R. B. Sadeghian, M. Kahrobi</i>	
Circuit Implementation of Programmable High-resolution Rational-powered Membership Functions in Standard CMOS Technology	1221
<i>A. Naderi, H. Mojarrad, H. Ghasemzadeh, A. Khoei, K. Hadidi</i>	

Materials and Elements of Constructions for Extreme Micro and Nanoengineering	1227
<i>V. V. Luchinin, A. V. Korlyakov</i>	
AFM Techniques for Nanostructured Materials Used in Optoelectronic and Gas Sensors	1231
<i>I. E. Gracheva, Y. M. Spivak, V. A. Moshnikov</i>	
Sol-Gel Film Structures Based on Titanate Ferroelectric Nanoparticles.....	1235
<i>V. P. Afanasyev, D. A. Chigirev, L. P. Efimenko, V. G. Baryshnikov, T. V. Khamova, O. A. Shilova, I. M. Sokolova</i>	
European FP7 Project ICPC NanoNet Facilitates EU - RU Networking in Nano Area.....	1239
<i>A. S. Ivanov, V. V. Luchinin, M. Morrison</i>	
Nonlinear Properties of Nanostructured Composite with Spherical or Ellipsoidal Ferroelectric Inclusions.....	1243
<i>N. Y. Medvedeva</i>	
How a Cell Phone Can Change Dramatically The Way We Watch TV.....	1249
<i>A. G. Foina, J. Ramirez-Fernandez</i>	
An Industrial Technology of Test Automation Based on Verified Behavioral Models of Requirement Specifications to Telecommunication Applications	1256
<i>S. Baranov, V. Kotlyarov, A. Letichevsky, V. M. Glushkov</i>	
Enhanced Architecture for Multimodality for Real Time Monitoring of Vessels inthe Mauritian Lagoon.....	1264
<i>V. Armoogum, S. Armoogum, J. Polin</i>	
Adaptive ARQ for WiMAX Networks	1268
<i>O. G. Ivanov, A. S. Bazhenov</i>	
On Reducing of Core Dump File Size	1272
<i>S. S. Grekhov, J. Jeong, M. P. Levin</i>	
Method for Automatic Detection of the Reasons of Unusual System Behavior by Evaluation of Correlation Between Events in Monitoring Tool	1277
<i>E. A. Gorelkina, S. S. Grekhov, J. Jeong, M. P. Levin</i>	
System-wide Analyzer of Performance: Performance Analysis of Multi-core Computing Systems with Limited Resources	1283
<i>A. A. Gerenkov, E. A. Gorelkina, S. S. Grekhov, S. Y. Dianov, J. Jeong, O. Kokachev, L. V. Komkov, S. B. Lee, M. P. Levin</i>	
Quest for Knowledge - A Mobile Learning Platform	1289
<i>M. Pogacnik, J. Guna, M. Papic, J. Bester</i>	
Environment of STB Applications for Complex Customer Service	1293
<i>D. O. Vavilov, L. Melikhova, A. Kokhanyuk, E. Kosobokova, D. Ivanov</i>	
An Improved Switching Median Filter for Impulse Noise Removal	1297
<i>D. K. Kuykin, V. V. Khryashchev, I. V. Apalkov</i>	
Orientation-selective 2D Recursive Filter Design Based on Frequency Transformations.....	1303
<i>R. Matei, D. Matei</i>	
Synthesis of New Canonical Structures for a Second-Order IIR Digital Filters	1311
<i>V. A. Lesnikov, T. V. Naumovich, A. V. Chastikov</i>	
No-reference Quality Assessment of Wavelet-compressed Images.....	1315
<i>D. A. Zaramensky, A. L. Priorov, V. A. Bekrenev, V. E. Soloviev</i>	
Digital Watermarking of Still Images with Color Digital Watermarks	1321
<i>A. R. Zubair, O. A. Fakolujo, P. K. Rajan</i>	
Error Concealment for Classified Texture Images.....	1329
<i>J. Polec, M. Pohancenik, S. Ondrusova, K. Kotuliakova, T. Karlubikova</i>	
An Error Evaluation Apparatus for Object Contour	1335
<i>J. Polec, T. Karlubikova, S. Ondrusova, K. Kotuliakova</i>	
Semantic Audiovisual Analysis for Video Summarization	1341
<i>J. You, M. M. Hannuksela, M. Gabbouj</i>	
Variable Step Size Dichotomous Coordinate Descent Affine Projection Algorithm	1347
<i>F. Albu, C. Paleologu, J. Benesty, Y. V. Zakharov</i>	
The Modified Capon Approach in the Task of Binary FSK-Signals Demodulation.....	1353
<i>A. A. Loginov, O. A. Morozov, S. L. Khmelev</i>	
A Novel Reversible Visible Watermarking Technique for Images Using Noise Sensitive Region Based Watermark Embedding (NSRBWE) Approach	1357
<i>A. Verma, S. Tapaswi</i>	
Blind Seismic Wavefield Separation Using Frequency Singular Value Decomposition.....	1361
<i>A. W. S. Al-Qaisi, W. L. Woo, S. S. Dlay</i>	
Evaluating Methods to Binarize Historic Cosmic-Ray Recordings	1369
<i>T. Plessis, G. R. Drevin</i>	
Object Analysis in Images Using Complex 2D Matched Filters.....	1375
<i>M. Greitans, M. Pudzs, R. Fuksis</i>	
Multi-dimensional Particle Swarm Optimization for Dynamic Clustering	1381
<i>S. Kiranyaz, T. Ince, A. Yildirim, M. Gabbouj</i>	

Linearly Constrained Adaptive Arrays Based on a Quadratic Constant Modulus Criterion	1389
<i>V. I. Djigan</i>	
Multiscale Moments-based Edge Detection	1397
<i>A. Lisowska</i>	
Performance Analysis of the Neyman-Pearson Fusion Center for Spectrum Sensing in a Cognitive Radio Network	1403
<i>S. Mosleh, A. A. Tadaion, M. Derakhtian</i>	
Breast Border Extraction and Pectoral Muscle Detection Using Wavelet Decomposition	1409
<i>M. Mustra, J. Bozek, M. Grgic</i>	
A New Perceptually Weighted Distance Measure for VQ of the STFT Parameters of the Speech	1417
<i>R. Doost, A. Sayyadian, H. Shamsi</i>	
fMRI Activation Detection by Obtaining BOLD Response of Extracted Ballon Parameters with Particle Swarm Optimization	1420
<i>T. Ali, F. Emad</i>	
An Efficient Window Function for Design of FIR Filters Using IIR Filters	1426
<i>M. G. Shayesteh, M. Mottaghi-Kashtiban</i>	
Medical Radiographs Compression Using Neural Networks and Haar Wavelet	1431
<i>A. Khashman, K. Dimilir</i>	
Signal Processing and Fuzzy Cluster Based Online Fault Diagnosis	1437
<i>S. Postalcioglu</i>	
A New Hybrid Algorithm for Fire Vision Recognition	1443
<i>M. Kandil, M. Salama</i>	
High Performance Signal Generator Implemented on Two Axes Hydraulic Pulsator	1450
<i>S. Despotovic, Z. Despotovic, S. Sudarevic</i>	
Some Power Quality Indices in Distribution Network of City of Nis	1457
<i>L. M. Korunovic, D. P. Stojanovic, S. L. Jovanovic</i>	
Measurement and Analysis of Neutral Conductor Current in Low Voltage Distribution Network	1463
<i>D. P. Stojanovic, L. M. Korunovic, A. Jovic</i>	
Expansion of Wireless Networks of Standard MIMO Indoors	1469
<i>A. Lagunov</i>	
Design of an EMI Filter for Static Converters with Off-line Simplified Measurements	1475
<i>A. Mariscotti</i>	
Electromagnetic Environments- Phenomena, Classification, Compatibility and Immunity Levels	1480
<i>B. W. Jaekel</i>	
The Designing and Simulation of Passive Filters Used in Urban Transportation Substations	1485
<i>P.-M. T. Nicolae, L. N. Mandache, I.-D. V. D. Nicolae</i>	
Current Control Strategy Research for Active Power Filter	1493
<i>X. Wei, K. Zhao, K. Shuang</i>	
Study of a Single-phase Bidirectional AC/DC Converter with a High Power Factor	1501
<i>M. Hr. Antchev, M. P. Petkova, V. T. Gurgulitsov, H. M. Antchev</i>	
IMT-Advanced Coexistence Method with Fixed Services in Different Geographical Areas at 3500 MHz	1508
<i>Z. A. Shamsan, T. A. Rahman</i>	
Active Length of the Cable Lines with an Uninsulated Metal Sheath from the Standpoint of Grounding Effects	1514
<i>L. M. Popovic</i>	
Compatibility of the Gas Filled Surge Arresters Characteristics	1519
<i>B. B. Loncar, M. Lj. Vujicic, K. Dj. Stankovic, P. V. Osmokrovic</i>	
About Surge Impedance of Power Transmission Line Tower at Lightning Stroke	1526
<i>G. N. Tsitsikyan</i>	
Estimation of the Electromagnetic Environment on Objects of the Railway Electrified on Direct Current	1529
<i>S. M. Apollonskii</i>	
Influence of a Broadband Signal of Millimeter Range Low Density Electromagnetic Radiation Over the Bone Marrow Cells of Rats	1536
<i>V. Dobrova, El. Dolzhikova, L. Maloshtan, Ek. Stepanova</i>	
Combining Internal Scan Chains and Boundary Scan Register: A Case Study	1542
<i>Z. Stamenkovic, M. Giles, F. Russi</i>	
Enlarged Sample Holder for Optical AFM Imaging: Millimeter Scanning with High Resolution	1548
<i>A. Sinno, P. Ruaux, L. Chassagne, S. Topcu, Y. Alalyli, G. Lerondel, S. Blaize, A. Bruyant, P. Royer</i>	
A New Discrete PDE-Based Fusion Model	1553
<i>S. Pop, R. Terebes, M. Borda, O. Lavialle</i>	
Application Software for Minimum Loss Configuration of the Distribution Networks	1561
<i>M. Moga, F. Molnar-Matei, M. Biriescu</i>	
Ultra Light-Weight Antenna System for Full Polarimetric GPR Applications	1567
<i>D. Pletteteier, S. Balling, W.-S. Benedix, V. Ciarletti, S.-E. Hamran, C. Corbel, S. Linke</i>	

Jamming Detection in Providing for Radar Jamming Immunity	1575
<i>E. Markin</i>	
The Application of the Matrix Pencil and Beamforming to Determine the Presence of Termites in SITU	1578
<i>N. W. Le Marshall, A. Z. Tirkel</i>	
The Low Probability of Intercept Radar Systems with Spatial Feedback	1583
<i>S. P. Kalenichenko, V. M. Kutuzov</i>	
Numerical Simulation and Analysis of Heat and Mass Transfer Processes in Metallurgical Induction Applications	1587
<i>E. Baake, A. Umbrashko, A. Jakovics</i>	
Integral Parameters of Installations for Direct Resistance Heating of Ferromagnetic Steel Bars of Square Cross-section.....	1593
<i>S. Lupi, M. Forzan, A. Aliferov</i>	
Recent Research at the Institute of Electrotechnology In the Field of Electromagnetic Processing of Materials.....	1600
<i>B. Nacke</i>	
A Few Aspects About Increasing the Thermal Stability of Low Voltage ZnO Based Varistors	1607
<i>M. Biriescu, F. Frigura-Ilias, P. Andea, P. Ehegartner, M. Moga</i>	
Environmental, Low Cost, Energy Efficient, Electromagnetic Indoor Induction Space Heating System Design.....	1613
<i>A. Kucukkomurler</i>	
Numerical Model Approaches for In-line Strip Induction Heating.....	1616
<i>Sergey A. Galunin, M. V. Zlobina, K. Yu. Blinov</i>	
Electrical Conductivity Measurement of Lanthanum Chromite Melts	1620
<i>Y. Blinov, I. Pozniak, A. Shatunov, A. Pechenkov, A. Zuev</i>	
Cross Layer Combining of Adaptive Modulation and Hybrid ARQ for SVD-based MIMO Transmission over Ricean Fading Channels	1624
<i>P. N. Ivanis, D. D. Drajic</i>	
System for Analysis of End-to-end Quality of Data Services in Cellular Networks	1632
<i>T. Janevski, A. Tudzarov, M. Porjazoski, P. Latkoski</i>	
Low Complexity Iterative MLSE Equalization of M-QAM Signals in Extremely Long Rayleigh Fading Channels.....	1640
<i>H. C. Myburgh, J. C. Olivier</i>	
Impedance Upper Connected to Distribution Panel of Existing Wire Communication System	1646
<i>T. Matsumoto, S. Koise</i>	
Wireless Propagation Modelling Inside a Business Jet	1652
<i>K. Chetcuti, C. J. Debona, R. A. Farrugia, S. Bruijlot</i>	
Burst-error Correction for Cyclic Codes.....	1658
<i>V. P. Semerenko</i>	
CINR-based Load Balancing in Multi-HAP Networks	1664
<i>M. V. Popovic, I. V. Basicevic, D. Kukolj</i>	
New Adaptive ARQ/HARQ Scheme Using RS Coding and Its Throughput Analysis	1670
<i>P. Fidler, J. Poctavec, K. Kotuliakova, J. Polec</i>	
Applied Infocommunication Systems and Their Models for Healthcare	1676
<i>A. D. Sotnikov</i>	
Design and Implementation of Alamouti Encoder for 4G Wireless System	1684
<i>M. T. Islam, M. W. Numan, N. Misran</i>	
Short-term Fading Simulator Based on Artificial Neural Networks	1689
<i>N. M. Tomasevic, A. M. Neskovic, N. J. Neskovic</i>	
A Technique for Mitigation of Both Nonlinear and Frequency Offset Effects in OFDM-based Systems	1697
<i>N. Y. Ermolova</i>	
OFDM Pulse Shape Generation Using Artificial Neural Networks.....	1702
<i>H. M. Akah, A. Kamel, H. M. El-Hennawy</i>	
Application of Artificial Neural Networks in Classification of Digital Modulations for Software Defined Radio.....	1708
<i>M. M. Roganovic, A. M. Neskovic, N. J. Neskovic</i>	
Location Tracking in GPS Using Kalman Filter Through SMS	1715
<i>M. Zahaby, P. Gaonjur, S. Farajian</i>	
Implementation of 'ASR4CRM': An Automated Speech-enabled Customer Care Service System	1720
<i>A. A. Atayero, C. K. Ayo, I.-O. Nicholas, A. Ambrose</i>	
Improving Reinforcement Learning Using Temporal-Difference Network	1724
<i>H. Karbasian, M. N. Ahmadabadi, B. N. Araabi</i>	
Detection Of Pronunciation Out Of Vocabulary Words From Speech Recognition System	1731
<i>V. M. Degtyarev, M. N. Gusev</i>	
Fiber Interferometric Communications Using Mach-Zehnder Interferometer Topology.....	1737
<i>J. Tratnik, B. Batagelj</i>	
Performance of MIMO System in Weibull Fading Channel - Channel Capacity Analysis	1743
<i>M. Lupupa, M. E. Dlodlo</i>	

Russian National Intelligent Network: Signaling Traffic Calculation for Different Configurations.....	1749
<i>I. L. Buzukova, Y. V. Gaidamaka</i>	
Opportunistic Use of Mobile Relays for Mobile Positioning for Next Generation Networks.....	1755
<i>B. A. Bakaimis</i>	
The Application of Discrete Time Methods to Position Estimation in WMANs	1762
<i>J. K. Buhagiar, C. J. Debono</i>	
Effective Transmission Speed in AX.25 Protocol.....	1770
<i>B. M. Zielinski</i>	
Self-Organizing Network Security Environments - A Simulative Analysis.....	1776
<i>F. Dressler, L. Poondru, T. Limmer, R. German</i>	
A Gateway-based Framework for Transparent Interconnection Between WSN and IP Network.....	1782
<i>K. A. Emara, M. Abdeen, M. Hashem</i>	
Next Generation Network Based Carrier Ethernet Test Bed for IPTV Traffic.....	1788
<i>R. Fu, M. S. Berger, Y. Zheng, L. Brewka, H. Wessing</i>	
Negative Effects of Electromagnetic Field in Induction Systems.....	1795
<i>V. A. Bukanin</i>	
Centralized Policy Provisioning for Inter-domain IMS QoS.....	1800
<i>M. Ageal, R. Good, A. Elmangosh, M. Ashibani, N. Ventura, F. Ben-Shatwan</i>	
Securing Control Signaling in Mobile IPv6 Route Optimization with Identity-based Encryption.....	1805
<i>H. Forsgren, K. Grahn, J. Karlsson, T. Karvi, G. Pulkkinen</i>	
Mathematical Analysis of Priority Model EDF for HLR/HSS	1813
<i>S. Finsterbusch</i>	
Resource Allocation in Multiservice Networks Using Fairness Index.....	1817
<i>A. M. Galkin, G. G. Yanovsky</i>	
Accuracy of the IP Packet Delay Variation Estimation	1822
<i>A. Sokolov</i>	
Approximating Blocking Probabilities for Multiservice Network Link with Unicast and Multicast Connections.....	1826
<i>O. N. Plaksina, K. E. Samouylov</i>	
State Estimation & Self-localization Using Distributed Kalman Filter & Recursive Expectation Maximization Algorithm in Sensor Networks.....	1830
<i>F. Amirafaci, H. Ghaffoorfard, M. B. Menhaj</i>	
Architecture & System Design of Authentication, Authorization, & Accounting Services.....	1838
<i>N. Papathoeodoulou, N. Sklavos</i>	
Empirical Performance Evaluation of Peer-to-peer VoIP Telephony Using SIP	1845
<i>J. Javornik, M. Volk, I. Humar, A. Kos</i>	
Performance Analysis of LPF Based VOQ Crossbar Switches.....	1851
<i>M. Radonjic, I. Radusinovic, Z. Veljovic</i>	
Synchronizing User Interfaces of Different Mobile Platforms	1859
<i>I. Madari, L. Lengyel</i>	
A Secure Dynamic Cryptographic and Encryption Protocol for Wireless Networks	1867
<i>P. H. Yu, U. W. Pooch</i>	
Signaling Flows Distribution Modeling in the IMS	1873
<i>I. I. Kuzmin, O. A. Simonina</i>	
Next-generation Router Model for Unicast and Multicast Communication Simulations	1877
<i>M. J. Urban</i>	
Three Phase Power Line Balancing Based on Smart Energy Meters	1883
<i>A. Pasdar, S. Mirzakuchaki</i>	
Models and Methods for Increasing of Service Provider Competitive Advantage by Minimizing Quoted in Customers' SLA Service Fulfillment Flow Times	1886
<i>K. S. Sizukhin</i>	
Statement of a Task Corporate Information Networks Interface Centers Structural Synthesis	1890
<i>T. Tatarnikova, M. Kolbanev</i>	
Concept Extraction Using Temporal-difference Network	1895
<i>H. Karbasian, M. N. Ahmadabadi, B. N. Araabi</i>	
Comparative Analysis of RSSI, SNR and Noise Level Parameters Applicability for WLAN Positioning Purposes	1902
<i>M. N. Borenovic, A. M. Nesovic</i>	
Central Placement of Storage Servers in Tree-like Content Delivery Networks	1908
<i>M. I. Andreica, N. Tapus</i>	
IEEE 1900.4 Generic Procedures to Realize Dynamic Spectrum Access Use Cases	1916
<i>S. Filin, H. Harada, H. Murakami, K. Ishizu, G. Miyamoto, H. N. Tran, M. Hasegawa</i>	
The Power-Series Algorithm for M/M/1-Type Polling System with Impatient Customers	1921
<i>V. M. Vishnevsky, O. V. Semenova</i>	

Margin Adaptive Resource Allocation with Long-term Rate Fairness Considered in Downlink OFDMA Systems.....	1925
<i>L. Hou, X. Lin</i>	
Managing Emergency Situations in IEEE 802.21 Enabled Networking Environments.....	1930
<i>V. M. Atanasovski, L. M. Gavrilovska</i>	
Random Multiple Access with Successive Interference Cancellation for Centralized Networks.....	1936
<i>A. V. Vinel, K. A. Fedorov</i>	
Design, Simulation and Realization of a Highly Efficient Wireless Sensor Network	1941
<i>S. Haq, M. Hamuda, S. Rafique</i>	
Meeting the Environmental and Operational Challenges of the O&G Industry with TETRA- Today and Future.....	1947
<i>I. Purg</i>	
Comparison of Three-level Torque Hysteresis Controllers for Direct Torque Control.....	1954
<i>J. Beerten, J. Vervecken, J. Driesen</i>	
Ranging in the IEEE 802.15.4a Standard Using Energy Detectors	1960
<i>B. Geiger</i>	
A Hybrid IWO/PSO Algorithm for Fast and Global Optimization.....	1968
<i>H. Hajimirsadeghi, C. Lucas</i>	
Low-complexity Model Predictive Control of Electromagnetic Actuators.....	1976
<i>R. M. Hermans, M. Lazar, S. Di Cairano, I. Kolmanovsky</i>	
The Support Vector Machined Kernel.....	1982
<i>K. S. Refaat</i>	
On the Local Stability Estiamtion Using First Lyapunov Exponent Calculation	1989
<i>A. v. Bespalov, Y. S. Christyakov</i>	
Basic Terms and Methods of Mechatronics on Example of BDC Motor Control.....	1995
<i>D. A. Lenevskiy, Y. L. Siek</i>	
Control Scheme for a Multiphase Matrix Converter	1999
<i>J. Szczepanik, T. Sienko</i>	
Orthogonality, Amplitude and Number of Users Effects on Conventional Multiuser Detection Using Turbo Decoding	2006
<i>S. V. Halunga, I. M. Marcu, O. Fratu, I. Marghescu</i>	
Characteristics of Stability of Different Design Strategies for Analogue Circuit Design.....	2013
<i>A. M. Zemliak, T. M. Markina</i>	
The Charging Problems in Mobile Service Deployment	2019
<i>L. S. Globa, A. Dyadenko, A. Reverchuk</i>	
Reorganization Features Of Field Spatial Structure Of Brain Biopotentials At Bilinguals During Verbal Tasks In The Native And Second Languages	2026
<i>O. V. Kruchinina, A. N. Shepovalnikov</i>	
Polarimetric Michelson Interferometer for Sub-nanometric Scale Positioning Control	2032
<i>S. Xu, L. Chassagne, S. Topcu, Y. Alayli, P. Juncar</i>	
Active and Reactive Power Control of a Doubly Fed Induction Generator for Wind Applications.....	2037
<i>B. Nait-kaci, M. L. Doumbia, K. Agbossou, A. Yousif</i>	
Determination of Electromagnetic Field in a Three-phase System with Three Single-core Power Electric Cables 110 kV	2043
<i>M. A. Prsa, N. D. Mucalica, K. K. Kasas-Lazetic</i>	
Structure of the Control Vector for the Minimal-time Circuit Design Algorithm.....	2049
<i>A. M. Zemliak</i>	
A Comprehensive Concept and System for Measurement and Testing Near Field Communication Devices	2055
<i>J. Langer, C. Saminger, S. Grunberger</i>	
Author Index	