

2009 International Conference on Advances in Computing, Control, and Telecommunication Technologies

(ACT 2009)

**Bangalore, India
28 – 29 December 2009**



**IEEE Catalog Number: CFP0946I-PRT
ISBN: 978-1-4244-5321-4**

2009 International Conference on Advances in Computing, Control, and Telecommunication Technologies

ACT 2009

Table of Contents

Message from General Chair
Message from Organizing Chair
Organizing Committee
International/National Advisory Committees
Program Committee
Reviewers

ACT 2009

Effective Web Service Discovery Based on Functional Semantics	1
<i>Demian Antony D'Mello and V. S. Ananthanarayana</i>	
Detection of Earth Surface Cracks Using Parallel Genetic Algorithm Based Thresholding	4
<i>Priyadarshi Kanungo, Pradipta Kumar Nanda, and Ashish Ghosh</i>	
A Novel Robust Negative High Gain ILC Current Controller for PMSM	12
<i>R. Suja and N. Amuthan</i>	
A Nonlinear State Observer Design for 2-DOF Twin Rotor System Using Neural Networks	15
<i>Ferdose Ahammad Shaik and Shubhi Purwar</i>	
Design of Wireless Sensor Network Node on ZigBee for Temperature Monitoring	20
<i>Sridevi Veerasingam, Saurabh Karodi, Sapna Shukla, and Mehar Chaitanya Yeleti</i>	
Rudder Actuation System for an Autonomous System	24
<i>K. Navinkumar, C.M. Sujatha, K.S. Arunlal, and S.A. Hari Prasad</i>	
Performance Evaluation of Homomorphic Filtering, Anisotropic Filtering and Autocontrast Algorithm	27
<i>C.M. Sujatha, K. Navinkumar, K.S. Arunlal, and S.A. Hari Prasad</i>	

Searching Path by Applying Intelligent Techniques	30
<i>Kiran Yadav and Ranjit Biswas</i>	
Indexed Array Algorithm for Sorting	34
<i>Varinder Kumar Bansal, Rupesh Srivastava, and Pooja</i>	
Probable Sequence Determination Using Incremental Association Rule Mining and Transaction Clustering	37
<i>Thivakaran T.K, Rajesh N., Yamuna P., and Prem Kumar G.</i>	
Performance Analysis of Parallel Apriori on Heterogeneous Nodes	42
<i>Ketan Shah and Sunita Mahajan</i>	
Neural Modeling of 15 Element Dynamic Phased Array Smart Antenna	45
<i>Abhishek Rawat, R.N. Yadav, and S.C. Shrivastava</i>	
Standard Scores Correlation Based Off-Line Signature Verification System	49
<i>Prashanth C.R., K.B. Raja, K.R. Venugopal, and L.M. Patnaik</i>	
Minutiae Extraction in Fingerprint Using Gabor Filter Enhancement	54
<i>Lavanya B.N., K.B. Raja, Venugopal K.R., and L.M. Patnaik</i>	
Design of Trickle Irrigation Control Unit Using PSoC	57
<i>Nandakumar R., K.S. Lalmohan, and Sreejeesh S.G.</i>	
SVD and Error Control Coding Based Digital Image Watermarking	60
<i>Swanirbhar Majumder, Tirtha Sankar Das, Vijay H. Mankar, and Subir Kumar Sarkar</i>	
Performance Evaluation and Analysis of Cluster Based Routing Protocols in MANETs	64
<i>Yogesh Chaba, Yudhvir Singh, and Manish Joon</i>	
Performance Enhancement of Microstrip Bandpass Filter Using CSSRR	67
<i>S.S. Karthikeyan and Rakhesh Singh Kshetrimayum</i>	
Effects of Coupling Coefficient on Static Properties of Bistable QWS-DFB Semiconductor Laser Amplifiers	71
<i>Mahmoud Aleshams and Masoud Jabbari</i>	
Distributed Route Selection Algorithm in Nested Multihomed Mobile Networks	75
<i>Sulata Mitra and Sumanta Pyne</i>	
Parallel Genetic Algorithm for VLSI Standard Cell Placement	80
<i>P. Subbaraj, S. Saravana Sankar, and S. Anand</i>	
Failure Performance Study of Hierarchical Agent Based Patient Health Monitoring in Wireless Body Sensor Mesh Network	85
<i>Norman A. Benjamin and Suresh Sankaranarayanan</i>	
A Novel Three Stage Process for Palmprint Verification	88
<i>Raghavendra R., Ashok Rao, and Hemantha Kumar G.</i>	
M-ary QIM Data Hiding for Error Concealment of Digital Image in JPEG Pipeline	93
<i>Amit Phadikar and Santi P. Maity</i>	

Neural Network: A Machine Learning Technique for Tertiary Structure Prediction of Proteins from Peptide Sequences	98
<i>Sandeep Kumar Kushwaha and Madhvi Shakya</i>	
Fuzzy Semi-Markov Model for Web Testing	102
<i>B. Praba, R. Sujatha, and S. Srikrishna</i>	
Isolated Word Recognition Using Normalized Teager Energy Cepstral Features	106
<i>Navnath S. Nehe and Raghunath S. Holambe</i>	
Contrast Stretching Recursively Separated Histogram Equalization for Brightness Preservation and Contrast Enhancement	111
<i>P. Jagatheeswari, S. Suresh Kumar, and M. Rajaram</i>	
Digital Image Compression Using Neural Networks	116
<i>Dipta Pratim Dutta, Samrat Deb Choudhury, Md Anwar Hussain, and Swanirbhar Majumder</i>	
Energy-Efficient Deployment of Distributed Mobile Sensor Networks Using Fuzzy Logic Systems	121
<i>Rahul Mathur, Manoj Kumar Sharma, Abhinav Misra, and Deep Baveja</i>	
Performance Analysis of a System Using Fuzzy Probist Reliability and Rank Correlation	126
<i>B. Praba, R. Sujatha, and V. Hilda Christy Gnanam</i>	
Computational Modeling and Simulation of Biomolecular Motors	130
<i>Shwetha M., Madathil Suchitra, Vasavi C.S., Radhagayathri K.U., Krishnan Namboori P.K., and Deepa Gopakumar</i>	
PSO-DV and Bacterial Foraging Optimization Based Dynamic Economic Dispatch with Non-smooth Cost Functions	135
<i>K. Vaisakh, P. Praveena, and S. Rama Mohana Rao</i>	
Adaptive PSO-DV Algorithm for Minimization of Power Loss and Voltage Instability	140
<i>K. Vaisakh, M. Sridhar, and K.S. Linga Murthy</i>	
A Novel Cluster Reformation Scheme to Improve Key Pre-distribution for Wireless Sensor Networks	145
<i>Kishore R., Radha S., Dipika G., Pavithra A., and Aarthi R.</i>	
Fingerprint's Core Point Detection Using Orientation Field	150
<i>H.B. Kekre and V.A. Bharadi</i>	
Robust Control of Unmanned Arial Vehicles	153
<i>Germane Xavier Athanasius, Jian Guo Zhu, and Anavatti G. Sreenatha</i>	
Loading Effect of a Series Resonance Circuit on Asynchronous Generator in an Isolated Power Generation	156
<i>Kulandhaivelu Subramanian and Ray Kalyan Kumar</i>	

Master Token Resource Management Algorithm for Distributed System - Time Sharing Strategy	159
<i>Abhijeet Uday Gole</i>	
Automatic Emotion Recognition from Speech Using Artificial Neural Networks with Gender-Dependent Databases	162
<i>Firoz Shah A., Raji Sukumar A., and Babu Anto P.</i>	
Performance Comparison of AODV, DSR and ZRP Routing Protocols in MANET'S	165
<i>Shaily Mittal and Prabhjot Kaur</i>	
Cryptographic Key Management for SCADA System: An Architectural Framework	169
<i>Om Pal, Sharda Saiwan, Peeyush Jain, Zia Saquib, and Dhiren Patel</i>	
Proposal of a New Steganographic Approach	175
<i>Amitabh Mishra, Akshay Gupta, and Dinesh Kumar Vishwakarma</i>	
An Efficient Algorithm for Mining Frequent Itemsets	179
<i>Jitendra Agrawal and R.C. Jain</i>	
Design and Analysis of MEMS Cantilever Based Binary Logic Inverter	184
<i>Subha Chakraborty, Ashesh Ray Chaudhuri, and Tarun Kanti Bhattacharyya</i>	
Multi-path and Message Trust-Based Secure Routing in Ad Hoc Networks	189
<i>Sanjay K. Dhurandher and Vijeta Mehra</i>	
3-D Model Watermarking Using Fuzzy Logic	195
<i>Sharvari C. Tamane, R.R. Manza, and R.R. Deshmukh</i>	
Search Engine that Enhances Search Results by Categorizing the Search Results Based on Conditional Probability	198
<i>Pralav Dessai and VijayMohanReddy Borra</i>	
Robustness Analysis of Efficient & Scalable Priority Based Jingle-Mingle Model Using Mosix	201
<i>Ankit Gupta, Rahul Agarwal, Rohit Vashishtha, Shakti Mishra, and D.S. Kushwaha</i>	
Performance of Dynamic Voltage Restorer (DVR) against Voltage Sags and Swells Using Space Vector PWM Technique	206
<i>Palaparthy Ananthababu, Burle Trinadha, and K. Ram Charan</i>	
Network Traffic Resilient Remote Resource Management Framework	211
<i>Chunky Gupta, Deepak Pandey, Prashant Kr. Singh, Rahul Agrawal, Shakti Mishra, and D.S. Kushwaha</i>	
Performance Comparison and Fabrication of Micro Machined Electron Tunneling Accelerometers having Cantilever and Proof-Mass Structures	214
<i>Ashesh Ray Chaudhuri, Pijus Kundu, Subha Chakraborty, and T.K. Bhattacharyya</i>	
Ticketing Solutions for Indian Railways Using RFID Technology	217
<i>Venugopal Prasanth, Hari Prasad R., and K.P. Soman</i>	

An Improved Parallel Genetic Algorithm for Path Bandwidth Calculation in TDMA-Based Mobile Ad Hoc Networks	220
<i>Gunasekaran R., Siddharth S., Raghavan Muthuregunathan, Srivathsan R., and V.R. Uthariaraj</i>	
Minimize the Effect of IGMP Leave Latency in Layered Multicast	227
<i>Karan Singh, Rama Shankar Yadav, and Girish Kumar Gupta</i>	
JS2DR2: An Effective Two-Level Job Scheduling Algorithm and Two-Phase Dynamic Replication Strategy for Data Grid	232
<i>P.K. Suri and Manpreet Singh</i>	
2-D Discriminative Component Analysis for Face Recognition	237
<i>Madhava S., D. Sheshachalam, and Yajnesh Padiyar</i>	
ICA Based Flow Artifact Removal from ECG during MRI	241
<i>Bhargav Bhatt and M. Ramasubba Reddy</i>	
FPGA Implementation of Low Phase Noise Oscillator	244
<i>Nitin P. Narkhede and Shyamkant S. Limaye</i>	
Design and Modeling of Biconical Dipole for Broad Band Applications	248
<i>Chalasani Subba Rao and Alapati Sudhakar</i>	
Low-Energy Equivalent Sized Location Aware Grouping in Wireless Sensor Networks	252
<i>Ajay Kumar Gautam and Amit Kumar Gautam</i>	
Evaluation of Audio Based Searching for Indian Traditional Music	255
<i>Yuvraj Singh Negi</i>	
Device Resource Monitoring System in Wireless Grids	260
<i>S.S. Manvi and M.N. Birje</i>	
A Hyperheuristic Approach to Select Enumeration Strategies in Constraint Programming	265
<i>Broderick Crawford, Mauricio Montecinos, Carlos Castro, and Eric Monfroy</i>	
An Ant-Based Solver for Subset Problems	268
<i>Broderick Crawford, Carlos Castro, and Eric Monfroy</i>	
FPGA or Cell for an Image Processing Application	271
<i>Ryan N. Rakvic, Hau Ngo, Randy P. Broussard, and Robert W. Ives</i>	
Direct Torque Fuzzy Control of an AC Drive	275
<i>Jagadish H. Pujar and S.F. Kodad</i>	
Multi-scale Modeling for Nano Scale Phenomenon Using CUDA Based Framework	278
<i>Rohit Pathak and Satyadhar Joshi</i>	
Automated Detection of Brain Tumor in EEG Signals Using Artificial Neural Networks	284
<i>M. Murugesan and R. Sukanesh</i>	
A Scheduling Algorithm for Network on Chip	289
<i>S. Subha</i>	

Implementation of a CCMT Compression Technique to Improve Performance Metrics in SECNTP-CKM for MANET	292
<i>Edna Elizabeth N. and S. Radha</i>	
Teaching Engineering Education Using Virtual Worlds and Virtual Learning Environments	295
<i>M.J. Callaghan, K. McCusker, J. Lopez Losada, J.G. Harkin, and S. Wilson</i>	
Minimum Switching Loss ADPWM Algorithm Based DTC Induction Motor Drive Operating at Near Rated Speeds	300
<i>K. Sri Gowri, T. Brahmananda Reddy, and Ch. Sai Babu</i>	
Capacity Estimation of ADSL Line Using Frequency Domain Based SELT Technique	304
<i>M. Bharathi, S. Ravishankar, and Usha Rani</i>	
Graphical Deadlock Avoidance	308
<i>Passent M. El-Kafrawy</i>	
Position Invariant Optical Character Recognition through Symmetry Features	313
<i>Sam Holland and Richard Neville</i>	
Classification of Handwritten Characters by their Symmetry Features	316
<i>Sam Holland and Richard Neville</i>	
Segmentation of Motion Objects from Four Successive Video Frames Simultaneously Using Multiple Correlation	319
<i>Girisha R. and Murali S.</i>	
Reinforcement Learning Solution for Unit Commitment Problem through Pursuit Method	324
<i>Jasmin E.A., Imthias Ahamed T.P., and Jagthy Raj V.P.</i>	
An Area-Throughput Efficient FPGA Implementation of the Block Cipher AES Algorithm	328
<i>Banraplang Jyrwa and Roy Paily</i>	
Multiresolution Features Based Polynomial Kernel Discriminant Analysis for Speaker Recognition	333
<i>Pawan K. Ajmera and Raghunath S. Holambe</i>	
Support Vector Machine for Classification of Plants and Animal miRNA	338
<i>Bhasker Pant, Kumud Pant, and K.R. Pardasani</i>	
Classification Models: Non Evolutionary vs. Evolutionary Approach	341
<i>Pardeep Kumar, Saroj, and Rajesh Siddavatam</i>	
An Energy-Efficient Congestion-Aware Routing Protocol for Heterogeneous Mobile Ad Hoc Networks	344
<i>S. Santhosh Baboo and B. Narasimhan</i>	
Enhanced Aperiodic Responsiveness by Preemption Control	351
<i>Ran Vijay, Rama Shankar Yadav, and Smriti Agrawal</i>	

Particle Swarm Optimization in Fine Tuning of PID Fuzzy Logic Power System Stabilizer	356
<i>K.R. Sudha, V.S. Vakula, and R. Vijayasanthi</i>	
A Common Palette Creation Algorithm for Multiple Images with Transparency Information	359
<i>P.S. Periasamy, S. Athi Narayanan, and K. Duraiswamy</i>	
On Improving the Performance of Promoter Prediction Classifier for Eukaryotes Using Fuzzy Based Distribution Balanced Stratified Method	364
<i>C. Premalatha, Chandrabose Aravindan, and K. Kannan</i>	
Wavelet Transform Based Abnormality Analysis of Heart Sound	367
<i>P.S. Vikhe, S.T. Hamde, and N.S. Nehe</i>	
Secure Path Loss Prediction in Fringe Areas Using Fuzzy Logic Approach	372
<i>Vishal Gupta and S.C. Sharma</i>	
Modeling and Analysis of an Efficient Bow-Tie Antenna for UWB Applications	376
<i>Bandi Saidaiah, Alapati Sudhakar, and K. Padma Raju</i>	
A New Approach for CBIR Using Coefficient of Correlation	380
<i>Neetesh Gupta, Niket Bhargava, Bhupendra Verma, Md. Ilyas Khan, and Shiv Kumar</i>	
A Novel Particle Swarm Optimization Based Optimal Design of Three-Ring Concentric Circular Antenna Array	385
<i>D. Mandal, A.K. Bhattacharjee, and S.P. Ghoshal</i>	
Handover Latency Analysis of Mobility Management Protocols in All-IP Networks	390
<i>Deepak Kumar Panwar, Shyam Lal, and Ila Chaudhary</i>	
Sea State Monitoring HF Radar Controller Using Reconfigurable LabView FPGA	395
<i>Shubhada Rajesh Gadgil, Dharmesh Verma, Meena S. Panse, and Kushal Tuckley</i>	
Design of a Form Factor Based Expert System for Detection of Myocardial Infarction Using Supervised Classification Technique	398
<i>Saurabh Pal and Madhuchhanda Mitra</i>	
Password Strength Prediction Using Supervised Machine Learning Techniques	401
<i>Vijaya M.S, Jamuna K.S, and Karpagavalli S.</i>	
Design and Implementation of Embedded Speed Controller on ARM for Micromanufacturing Applications	406
<i>Tanmay Pal, Chandra Shekhar, and Himanshu Dutt Sharma</i>	
Design of Reconfigurable UWB Transmitter to Implement Multi-rate MB-OFDM UWB Wireless System	411
<i>C. Vennila, G. Lakshminarayanan, and Sowjanya Tungala</i>	
Process Variations and Noise Analysis on a Miller Capacitance Tuned 1.8_2.4-GHz Dual-Band Low Noise Amplifier	414
<i>Deepak Balemarthy and Roy Paily</i>	

Low Power Pseudoexhaustive Testing with Cellular Automata	419
<i>Krishna Kumar S., Uday Bhaskar P., and Santanu Chattopadhyay</i>	
Multioutput Current-Controlled Current Conveyor-Based Function Generator	424
<i>Nigar Minhaj</i>	
The Effect of Spreading Factor on Network Lifetime and Energy Consumption Rate of Low Energy Adaptive Clustering Hierarchy (LEACH)	428
<i>Bhaskar P. Deosarkar, Narendra Singh Yadav, and R.P. Yadav</i>	
A Utilization Based Approach for Secured Real Time Applications on Clusters	433
<i>Sarsij Tripathi, Rama Shankar Yadav, and Rudra Pratap Ojha</i>	
Rule Based Machine Translation from English to Malayalam	439
<i>Remya Rajan, Remya Sivan, Remya Ravindran, and K.P. Soman</i>	
Transconductance Element-Based Non-inverting and Inverting Precision Full-Wave Rectifier Circuits	442
<i>Nigar Minhaj</i>	
Performance Measures for Fusion of Multiple Input Images	446
<i>Arathi T., Mallika K., Rahul C., and K.P. Soman</i>	
Novel Approach for Design and Optimization of Wideband Integrators and Differentiators	449
<i>Gaurav Kumar Thakur, Ankur Gupta, and Dharmendra Upadhyay</i>	
Implementation of Static VAR Compensator for Improvement of Power System Stability	453
<i>B. Venkateswara Rao, G.V. Nagesh Kumar, M. Ramya Priya, and P.V.S. Sobhan</i>	
Rule Based Reordering and Morphological Processing for English-Malayalam Statistical Machine Translation	458
<i>Rahul C., Dinunath K., Remya Ravindran, and K.P. Soman</i>	
Searching for the Centers of Spheres and Ellipsoids	461
<i>Md. Hasanuzzaman Bhuiyan and Syed Ishtiaque Ahmed</i>	
Group Communication Based Approach for Reliable Mobile Agent in Information Retrieval Applications	464
<i>M. Vigilson Prem and S. Swamynathan</i>	
Optimal Power Flow by Newton Method for Reduction of Operating Cost with SVC Models	468
<i>B. Venkateswara Rao, G.V. Nagesh Kumar, M. Ramya Priya, and P.V.S. Sobhan</i>	
Resistive Switching of Al/Sol-Gel ZnO/Al Devices for Resistive Random Access Memory Applications	471
<i>Saniya Deshpande and Vineet Vijaykrishnan Nair</i>	
Optimized Automatic Generation Control by SSSC and TCPS in Coordination with SMES for Two-Area Hydro-hydro Power System	474
<i>Praghnes Bhatt, S.P. Ghoshal, and Ranjit Roy</i>	

Scheduling Independent Tasks on Heterogeneous Distributed Computing Systems Using Multiobjective Optimization Approach on Multicore Processors	481
<i>S. Saranya, S. Revathi, P. Chitra, and P. Venkatesh</i>	
PBFMCSP: Prefix Based Fast Mining of Closed Sequential Patterns	484
<i>M. Thilagu, R. Nadarajan, M.S. Irfan Ahmed, and S. Sathya Bama</i>	
Secure Transmission Model for Structured Data	489
<i>Biswajit Biswal</i>	
Reliable Task Scheduling for Heterogeneous Distributed Computing Environment	494
<i>V. Nesa PriyaDarshini, P. Sabari Sankari, P. Chitra, and Venkatesh</i>	
Look Up Table Based Fuzzy Logic Controller for Unmanned Autonomous Underwater Vehicle	497
<i>P.V.S. Sobhan, G.V. Nagesh Kumar, M. Ramya Priya, and B. Venkateswara Rao</i>	
Design and Development of Embedded System on ARM for On-Line Characterization of DC Motor	502
<i>Tanmay Pal, Chandra Shekhar, and Himanshu Dutt Sharma</i>	
Framelet Based Image Fusion for the Enhancement of Cloud Associated Shadow areas in Satellite Images	507
<i>Mallika K., Arathi T., Krishna Rao G.V., and K.P. Soman</i>	
Daubechies-Lagarias Algorithm – A Simplified Approach	510
<i>K.P. Soman, Arathi T, Mridula Sara Augustine, and Arunima S.V.</i>	
False Alert Reduction on Network-Based Intrusion Detection Systems by Means of Feature Frequencies	513
<i>Sara Khanchi and Fazlollah Adibnia</i>	
An Intelligent Data Processing Engine for Spatial Data Management in Vehicular Telematics System	517
<i>Animesh Tripathy, Subhalaxmi Das, and Prashanta Kumar Patra</i>	
Study of Routing Protocols in Wireless Sensor Networks	522
<i>K. Pawai, A. Sivagami, and D. Sridharan</i>	
A Secure and Lightweight Service Discovery Model for Mobile Ad Hoc Networks	526
<i>R. Deepa and S. Swamynathan</i>	
Particle Swarm Optimization Aided Kalman Filter for Object Tracking	531
<i>Nimmakayala Ramakoti, Ari Vinay, and Ravi Kumar Jatoth</i>	
Design Parameters for a Secure System for Mobile Ad Hoc Network	534
<i>Vinu V. Das and R. Vijayakumar</i>	
Project Classification Using Soft Computing	537
<i>Malay Bhatt, Rituraj Jain, and C.K. Bhensdadia</i>	

Simulation of Direct Current Controlled PWM Rectifier Feeding to Adjustable Speed Drives	540
<i>T. Narasa Reddy, T. Purnachandra Rao, and M. Dilip Kumar</i>	
Wavelet Based Image Compression: A Comparative Study	545
<i>S.P. Raja, N. Narayanan Prasanth, S. Arif Abdul Rahuman, S. Kurshid Jinna, and S.P. Princess</i>	
New Feature Vector for Image Retrieval: Sum of Value of Histogram Bins	550
<i>N.S.T. Sai and R.C. Patil</i>	
A Survey on Complex Wormhole Attack in Wireless Ad Hoc Networks	555
<i>Mohit Jain and Himanshu Kandwal</i>	
Design and Control of Hybrid Switched Capacitor DC-DC Converter with Different Operating Conditions	559
<i>Mummadi Veerachary and T. Narasa Reddy</i>	
A Control Strategy for a VSC HVDC System in Steady State Response	564
<i>Sonali Dasgupta and Gayatri Agnihotri</i>	
Development of a State-of-the-Art ECG DAS for Storing, Processing and Analysis Using MATLAB-Based GUI and Microprocessor	570
<i>Rajarshi Gupta, Madhuchhanda Mitra, and Jitendranath Bera</i>	
Robust Feature Extraction Technique for Optical Character Recognition	573
<i>R. Ramanathan, Arun S. Nair, L.Thaneshwaran, S. Ponmathavan, N. Valliappan, and K.P. Soman</i>	
Co-operative Approach to Detect Misbehaving Nodes in MANET Using Multi-hop Acknowledgement Scheme	576
<i>S. Usha and S. Radha</i>	
A Novel Power Allocation Scheme for Robust Transmission of JPEG Compressed Images over MIMO System Using LLSE	579
<i>R. Deepa and K. Baskaran</i>	
Soft Computing for Voltage Stability Analysis and Contingency Ranking in Power System	583
<i>C. Subramani, S.S. Dash, M. Arun Bhaskar, M. Jagadeeshkumar, and K. Balaji</i>	
A Low-Power Skew Tolerant Domino Digit Serial Multiplier	588
<i>Akkamahadevi D.H. and Nataraj Urs H.D.</i>	
Design of Low Power Mixed Radix FFT Processor for MIMO OFDM Systems	591
<i>M.P. Chitra and S.K. Srivatsa</i>	
Core-Stateless Fair Queuing for Fair Bandwidth Allocations in Internet	596
<i>M. Azath, A. Neela Madheswari, and R.S.D. Wahida Banu</i>	
Design of an Enhanced ACC for Collision Detection and Prevention Using RTOS	599
<i>P. Saravanan and M. Anbuselvi</i>	

Design and Analysis of Floating Point and Galois Field Multipliers Using Wave-Pipelining	602
<i>M. Anbuselvi, S. Salivahanan, and P. Saravanan</i>	
An Approach to the Design of a Rate Monotonic Scheduler for Real-Time Systems	605
<i>Santanu Chatterjee and Dhruba Basu</i>	
Optical Character Recognition for English and Tamil Using Support Vector Machines	610
<i>R. Ramanathan, S. Ponmathavan, N. Valliappan L.Thaneshwaran, Arun S. Nair, and K.P. Soman</i>	
Tamil Font Recognition Using Gabor Filters and Support Vector Machines	613
<i>R. Ramanathan, S. Ponmathavan, L. Thaneshwaran, Arun S. Nair, N. Valliappan, and K.P. Soman</i>	
Fuzzy Logic Controlled Shunt Active Power Filter for Mitigation of Harmonics with Different Membership Functions	616
<i>T. Narasa Reddy and M.V. Subramanyam</i>	
Behavior Analysis of Malicious Node in the Different Routing Algorithms in Mobile Ad Hoc Network (MANET)	621
<i>Dinesh Mishra, Yogendra Kumar Jain, and Sudhir Agrawal</i>	
PID Controllers Tuning for Improved Performance of Unstable Processes	624
<i>Gajanan M. Malwatkar, Prashant T. Bhosale, Satish D. Nikam, and Laxman N. Waghmare</i>	
Synchronization of Class of One-Way Coupled Chaotic Systems	629
<i>B.B. Sharma and I.N. Kar</i>	
Protocol for Anonymous and Secure E-Cash Transaction	634
<i>Vinu V. Das</i>	
Conventional versus Vedic Mathematical Method for Hardware Implementation of a Multiplier	640
<i>Parth Mehta and Dhanashri Gawali</i>	
JPEG Image Compression and Transmission over Wireless Channel	643
<i>Vaibhavi P. Lineswala and Jigisha N. Patel</i>	
Design and Implementation of Integer Transform and Quantization Processor for H.264 Encoder on FPGA	646
<i>N. Keshaveni, S. Ramachandran, and K.S. Gurumurthy</i>	
Design and Development of Clocked Transmission Gate Cross-Coupled Adiabatic Circuit	650
<i>Aminul Islam and Mohd. Hasan</i>	
D&C Fast Exponentiation Algorithm	654
<i>Ashwin Prabhu Verleker and Suneeta Agarwal</i>	
A Novel Approach for Clustering Web User Sessions Using RST	657
<i>Jyoti, A.K. Sharma, Amit Goel, and Payal Gulati</i>	

FPGA Based Micro-PLC Design Approach	660
<i>Dhanashri Gawali and V.K. Sharma</i>	
Mathematical Model of Cloud Computing Framework Using Fuzzy Bee Colony Optimization Technique	664
<i>Kuntal Mukherjee and G. Sahoo</i>	
Applying Data Mining Techniques for Placement Chance Prediction	669
<i>Sudheep Elayidom, Sumam Mary Idikkula, Joseph Alexander, and Anurag Ojha</i>	
GPS Signal Distribution System	672
<i>Aaradhana A. Deshmukh and S.A. Kulkarni</i>	
Mobile Controlled Smart PLC with Integrated SMS Troubleshooting Technique	675
<i>Navneet Tohan, Akhil Sharma, and Pankaj Bande</i>	
Selection of Wavelets for Medical Image Compression	678
<i>V.K. Bairagi and A.M. Sapkal</i>	
Evaluation of Performance of Genetic Algorithm for Speech Signals Separation	681
<i>Samira Mavaddaty and Ataollah Ebrahimzadeh</i>	
Dynamic Partial Reconfigurable Embedded System to Achieve Hardware Flexibility Using 8051 Based RTOS on Xilinx FPGA	684
<i>Titendra B. Zalke and Sandeep Kumar Pandey</i>	
Node Voltage Improvement by Network Reconfiguration: A Soft Computing Approach	687
<i>Sandeep Chakravorty, Jaydeep Chakravorty, and Shweta Sarkar</i>	
Performance Analysis of Dual Vt Asymmetric SRAM - Effect of Process Induced Vt Variations	692
<i>Mamatha Samson</i>	
A New Performance Enhancement Technique of the Current Feedback Amplifier	695
<i>Rakesh Kumar Singh and R.K. Nagaria</i>	
SBSQLID: Securing Web Applications with Service Based SQL Injection Detection	702
<i>Shri V. Shanmuganeethi, Smt C. Emilin Shyni, and S. Swamynathan</i>	
Wavelet Adaptive Output Tracking Control for a Class of Delayed Uncertain MIMO Nonlinear Systems Subjected to Actuator Saturation	705
<i>Manish Sharma, Ajay Kulkarni, and Ajay Verma</i>	
Digital Signal Modulator on FPGA Using on the Fly Partial Reconfiguration	711
<i>Sheetal U. Bhandari, Shaila Subbaraman, and Shashank Pujari</i>	
Dynamic Analysis of a Grid-Connected Wind Electric Generator with Embedded Static VAR Compensator	714
<i>Vishnuvardhanan V. and Sasi K. Kottayil</i>	

Active Power Control in Variable Speed Wind Electric Generators	717
<i>Remya K. and Sasi K. Kottayil</i>	
H-S-X Cryptosystem and Its Application to Image Encryption	720
<i>Bibhudendra Acharya, Sambit Kumar Shukla, Saroj Kumar Panigrahy, Sarat Kumar Patra, and Ganapati Panda</i>	
Stabilization Using Fractional-Order PIDa Controllers for First Order Time Delay System	725
<i>T. Vinopraba, N. Sivakumaran, N. Selvagesan, and S. Narayanan</i>	
Performance Comparison of Hashing Algorithm with Apriori	729
<i>R. Rathinasabapathy and R. Bhaskaran</i>	
Heuristic Approaches with Probabilistic Management for Node Placement in Wireless Sensor Networks	734
<i>Sasikumar P. and Jagadeesan N.</i>	
Improving Retrieval Effectiveness Using Ant Colony Optimization	737
<i>Sandeeo G. Khode and Rajesh Bhatia</i>	
Authorship Protection for Textual Documents	742
<i>Adimoolam M., Vasanth I., Prabhu D., and Karthi G.</i>	
A Structure Based Computer Grammar to Understand Compound-Complex, Multiple-Compound and Multiple-Complex English Sentences	746
<i>Umesh Chandra Jaiswal, Ravindra Kumar, and Susheel Chandra</i>	
Multi-valued Logic Addition and Multiplication in Galois Field	752
<i>Vasundara Patel K.S. and K..S. Gurumurthy</i>	
A Novel Technique for Improvement of Power Supply Rejection Ratio in Amplifer Circuits	756
<i>Vivek Gupta, Anu Gupta, Nitin Chaturvedi, and Abhijit Asati</i>	
An Adaptive Intrusion Prevention System Based on Immunity	759
<i>Peeyush Jain and Sudhansu Goyal</i>	
Iris Feature Extraction for Personal Identification Using Lifting Wavelet Transform	764
<i>Chandrashekar M. Patil and Sudarshan Patilkulkarani</i>	
Mathematical Modeling for Evaluation of Quality of Service Parameters in Next Generation Cellular Wireless Networks	767
<i>Raj Kumar Samanta, Partha Bhattacharjee, and Gautam Sanyal</i>	
Procedure for Multiplication Based on DNA Computing	772
<i>Sanchita Paul and Gadadhar Sahoo</i>	
GSM Network Based Z-axis Position Control System	775
<i>S. Hemnath and V. Sridevi</i>	
Denosing of ECG by Statistical Adaptative Thresholding and Detection of T-Wave Alternans Using Principal Component Analysis	778
<i>N. Krishna Prakash, S.M. Reseeda Banu, and S.M. Haseena Banu</i>	

Improved Analysis on Chang and Chang Password Key Exchange Protocol	781
<i>R. Padmavathy, Tallapally Shirisha, M. Rajkumar, and Jayadev Gyani</i>	
Active Worm Early Detection Using Network Sniffer	784
<i>S. Babu Regna Rajan, R. Arock Nirmelt, S. Arif Abdul Rahuman, S. Mohideen Abdul Kader, and S. Ganesh</i>	
Enhanced Local Repair AODV (ELRAODV)	787
<i>Jagpreet Singh, Paramjeet Singh, and Shaveta Rani</i>	
Thyristor Controlled Series Capacitor as an Optimizer in an Electrical Market	792
<i>M. Arun Bhaskar, S.S. Dash, N. Meyyappan, and P. Chidambaram</i>	
Load Balancing in Structured P2P Systems Using Server Reassignment Technique	795
<i>S.S. Patil and S.K. Shirgave</i>	
Congestion in SMS-Based Query-Response Mechanism - A Possible Solution	798
<i>Tathagato Mukhopadhyay and Balaram Bhattacharyya</i>	
A Resource Management Mechanism for Down Linking in WiMax Networks	803
<i>N. Karthick, K. Venkatraman, J. Naren, and B. Amutha</i>	
Target Tracking with Integrated Coverage in Wireless Sensor Networks	806
<i>Amutha Nanmaran, M. Ponnaivaikko, and N. Karthick</i>	
Multi Channel MAC Implementation for Wireless Sensor Networks	809
<i>M. Ramakrishnan and P. Vanaja Ranjan</i>	
Task Independent Privacy Preserving Data Mining on Medical Dataset	814
<i>E. Poovammal and M. Ponnaivaikko</i>	
Image Registration by Template Matching Using Normalized Cross-Correlation	819
<i>J.N. Sarvaiya, Suprava Patnaik, and Salman Bombaywala</i>	
A Multiagent System for Distributed Sensor Networks	823
<i>R.B. Patel and Deepika Jain</i>	
A Novel Metric Learning Method and Its Application	827
<i>A. Shaik Abdul Khadir, S.V. Kasmir Raja, and K. Mohamed Amanullah</i>	
A KDD System for the Discovery of Quantified Exception Rules	830
<i>Tamanna Siddiqui and M. Afshar Alam</i>	
Optimal Learning with Progressive Accuracy for Function Representations in Orthogonal Wavelet Neural Network (WNN)	834
<i>Pushpalatha M.P. and Nalina N.</i>	
An Investigation of the Effect of Discretization on Defect Prediction Using Static Measures	837
<i>Pradeep Singh and Shirish Verma</i>	
Enhancement of QoS of VOIP over Heterogeneous Networks by Improving Handoff Speed and Throughput	840
<i>B. Balavenkatesh, K.A. Bala Krishnan, S. Ramkumar, V. Berlin Hency, and D. Sridharan</i>	

Scan Chain Design Targeting Dual Power and Delay Optimization for 3D Integrated Circuit	845
<i>Chandan Giri, Surajit Kumar Roy, Baishali Banerjee, and Hafizur Rahaman</i>	
Automated Surveillance of Unattended Bags for Complex Situations	850
<i>Irfan Ahmed K. Mohammed and Sreela Sasi</i>	
A Novel Edge Based Method to Extract Text in Camera Captured Images	853
<i>H.K. Chethan, G. Hemantha Kumar, and Raghavendra R.</i>	
Genetic Algorithm Based Indicator Sequence Method for Exon Prediction	856
<i>V.G. Biju and P. Mydhili</i>	
Image Scaling Comparison Using Universal Image Quality Index	859
<i>Prashanth H.S., Shashidhara H.L., and Balasubramanya Murthy K.N.</i>	

Author Index