

2013 International Conference on Current Trends in Engineering and Technology

(ICCTET 2013)

**Coimbatore, India
3 July 2013**



**IEEE Catalog Number: CFP1300W-POD
ISBN: 978-1-4799-2585-8**

TABLE OF CONTENTS

A Secure Fast 2D - Discrete Fractional Fourier Transform Based Medical Image Compression Using Hybrid Encoding Technique	1
<i>P. Vasanthi Kumari, K. Thanushkodi</i>	
Automatic Defect Detection Inspectacles and Glass Bottles Based on Fuzzy C Means Clustering	8
<i>Jaina George, S. Janardhana, J. Jaya, K. J. Sabareesaan</i>	
Experimental Investigation on R.C.C Beam Retrofitted with Jute Fibre Sheet	13
<i>A. S. Jeyabharathy, S. Robert Ravi</i>	
Indian Rice Husk Ash – Improving the Strength and Durability of Concrete: a Review	16
<i>A. N. Swaminathen</i>	
Automatic Registration of Images with Simulated Rotation and Translation Estimation Using Hairis	18
<i>K. Priyadharshini, R. R. Jegan, G. K. D. Prasanna Venkatesan</i>	
Detection of Suspicious Region in Medical Images by Genetic Algorithm	25
<i>S. Janardhana, J. Jaya, K. J. Sabareesaan, Jaina George, D. Yokeshwaran</i>	
Computer Aided Inspection System for Food Products Using Machine Vision – a Review	29
<i>S. Janardhana, J. Jaya, K. J. Sabareesaan, Jaina George, D. Yokeshwaran</i>	
Robust Image Watermarking Based on Block Based Error Correction Code	34
<i>A. Umaamaheshvari, K. Thanushkodi</i>	
Low-leakage Full Adder Circuit Using Current Comparison Based Domino Logic	41
<i>R. Naveen, K. Thanushkodi</i>	
A New Improved Algorithm for Speed Control of Brushless DC Motor	46
<i>T. V. Mahendiran, K. Thanushkodi</i>	
A Numerical Novel TANAN’s Algorithm for Solving Economic Load Dispatch Problems	52
<i>R. Subramanian, K. Thanushkodi, A. Prakash</i>	
ANN Modeling of Forced Convection Solar Air Heater	57
<i>P. T. Saravanakumar, K. Mayilsamy, V. Boopathi Sabareesh, K. J. Sabareesan</i>	
Image Noise Removal Framework Based on Morphological Component Analysis	63
<i>S. Janardhana, J. Jaya, K. J. Sabareesaan, Jaina George</i>	
Efficient Channel Assignment and Routing in Wireless Mesh Network	67
<i>D. Jasmine David, V. Jagathesan</i>	
EMMT: Multiflow Wireless Multicasting Transmission for IEEE 802.11	74
<i>S. Rameshkumar, A. Vijay</i>	
Effect of Alkali Treated Maize Fibers, Compared with Raw Maize Fibers and Their Application	79
<i>P. Baranitharan, K. Soorya Prakash</i>	
Computer Vision System for Food Quality Evaluation – a Review	85
<i>P. Nandhini, J. Jaya, Jaina George</i>	
Handicapped Assisting Robot	88
<i>S. Kumar, P. Rajasekar, T. Mandharasalam, S. Vignesh</i>	
Robust Techniques for Automated Bone Age Assessment	92
<i>P. Thangam, R. Saravanan, K. Thanushkodi</i>	
Nitrogen Gas Flow Driven Voltage Production of Self Assembled Monolayer Coated Doped P-type and N-type Silicon Wafers	95
<i>D. Devaprakasam, R. Guganesan, P. Prakash, U. Satheesh</i>	
Comparison of Performance of High Speed VLSI Adders	99
<i>A. N. Jayanthi, C. S. Ravichandran</i>	
Quality Analysis of Food Products Through Computer Aided Visual Inspection: a Review	105
<i>George Mathew, Jaina George, J. Jaya, S. Janardhana, K. J. Sabareesaan</i>	
Empowered Service Delegation with Attribute Encryption for Distributed Cloud Computing	110
<i>S. S. Aravinth, M. Ramkumar, B. Rajkumar, M. Anitha, S. Elangodi</i>	
Application of GIS in Highway Alignment with Soft Computing Tools	114
<i>S. Loganathan, K. Elangovan</i>	
An Ontological Approach to Identify Expert Knowledge in Academic Institution	120
<i>K. Kalaiselvi, P. S. Balamurugan</i>	
Identifying Trusted Routing Path in WSNs Through TARF	123
<i>S. Anitha, A. Nithya, A. Vijay</i>	
Non Convex Economic Load Dispatch Problem by Efficient Biogeography Based Optimization Algorithm	127
<i>M. Vanitha, K. Thanushkodi</i>	

Finite Element Analysis on Two Wheeler Gear Drive	131
<i>C. Clement Christy Deepak</i>	
Visual Quality Analysis of Using Computer Aided Inspection Technique	134
<i>J. S. Arun, Jaina George, J. Jaya, S. Janardhana, K. J. Sabareesaan</i>	
Dynamic Hierarchical Mobility Detection for Mobile Target in Wireless Networks	138
<i>V. K. Rathina Bharathy, S. Kowsalya, P. S. Balamurugan</i>	
Solution of Economic Load Dispatch Problems with Valve-point Effect Using Novel TANAN's Algorithm	141
<i>R. Subramanian, K. Thanushkodi, P. N. Neelakantan</i>	
An Experimental Investigation on Flexural Behaviour of Stainless Steel Fiber Reinforced Concrete Beam Elements	146
<i>P. Prasath, D. Silambarasan</i>	
Anaerobic Digestion Treatment of Tannery Waste Water	152
<i>P. Tamilchelvan, S. Mohan</i>	
Efficient Exclusive Opportunistic Routing for Vastly Dynamic Mobile Ad Hoc Networks	157
<i>P. B. Edwin Prabhakar, K. Tirunadana Sikamani</i>	
A Vigorous Distributive Approach to Adaptive Link Scheduling in Mobile Ad - Hoc Networks	161
<i>X. S. Asha Shiny, R. Jagadeeshkannan</i>	
Bettering the Reliability Through Gossiping in Wireless Sensor Networks	164
<i>P. Subramanian, E. Logashanmugam</i>	
A Novel Method to Avoid Stale Route Cache Problem of Dynamic Source Routing Protocol for Mobile Ad Hoc Network	167
<i>Deepadasarathan, P. Nirmal Kumar</i>	
Minimization of Link Failure in Mobile Ad Hoc Network by Using Rss Based Aodv Routing Protocol	171
<i>Rajan Pravinchandra Modi, K. Thirunadana Sikamani</i>	
A New Supportive Opportunistic Routing Scheme in Mobile Ad-hoc Networks	174
<i>S. Senthil Kumar, V. Parthasarathy</i>	
Systematic Assessment of Path Extent Time in Mobile Ad-hoc Networks	177
<i>M. Varghese, V. Parthasarathy</i>	
Design of High Speed and Low Power New Reconfigurable FIR Filter for DSP Applications	181
<i>N. C. Sendhilkumar, E. Logashanmugam</i>	
Localization of Optic Disc Using Fuzzy C Means Clustering	184
<i>K. Padmanaban, R. Jagadeesh Kannan</i>	
Improved Route Error Tolerant Mechanism for Aodv Routing Protocol in Manet	187
<i>S. Shanthini Devi, K. Thirunadana Sikamani</i>	
A Novel Approach of Graphene-based Composite Thin Films for Electronics Applications	191
<i>G. Arthi, S. Balaji, J. Jaya</i>	
Automated Seizure Detection Using Multilayer Feed Forward Network Trained Using Scaled Conjugate Gradient Method	195
<i>K. Sivasankari, K. Thanushkodi, K. Kalaivanan</i>	
Thresholding Approaches for Extracting Optic Disc in Digital Fundus Image	199
<i>N. Thulasi, K. Thirunadana Sikamani</i>	
Discarded Tyre Rubber As Concrete Aggregate: a Possible Outlet for Used Tyres	202
<i>R. Thiruppathi</i>	
Confide Based Path Discovery Scheme (CPD) for Mobile Ad - Hoc Network to Increase the Quality of Service	208
<i>S. Omkumar, S. Rajalakshmi</i>	
Energy Aware Multicast Opportunistic Routing Protocol (Eamor) to Optimize Lifetime of Manet	210
<i>S. Muthumari Lakshmi, K. Thirunadana Sikamani</i>	
Wavelet Analysis for Medical Image Denoising Based on Thresholding Techniques	213
<i>A. K. Velmurugan, R. Jagadeesh Kannan</i>	
Low Power and High Speed AES Using Mix Column Transformation	216
<i>J. Balamurugan, E. Logashanmugam</i>	
Modeling and Manual Design Comparison of Stresses in Castellated Beam Using Ansys	220
<i>E. Rajalakshmi</i>	
Design and Implementation of Digital RF Transmitter for Bluetooth Applications	225
<i>S. Praghajieeth Raajhen, S. Janardhana, J. Jaya, K. J. Sabareesaan</i>	
Colour Image Enhancement Based on Wavelet Approximation Coefficient Histogram	228
<i>K. Baranitharan, S. Srinivasa Rao Madane</i>	
Proficient Routing Method That Exploits the Lifetime of Wireless Sensor Networks	231
<i>B. Thenral, K. Thirunadana Sikamani</i>	

Design and Analysis of Nonlinear Aes S-box and Mix-column Transformation with the Pipelined Architecture	235
<i>V. Gopi, E. Logashanmugam</i>	
High Throughput Pipelined Implementation of Pulse Width Modulation on FPGA	239
<i>V. Nandagopal, M. Manikandan</i>	
Design, Analysis and FPGA Implementation LDPC Codes with BCH Codes	242
<i>R. Muthammal, S. Srinivasa Rao Madhane</i>	
Design and Analysis of OFDM Transceiver with Novel Architecture	248
<i>P. Sadhasivam, M. Manikandan</i>	
Design and Analysis of AES-CM with Non-linearity S-box Architecture	252
<i>K. Sandyarani, P. Nirmal Kumar</i>	
Efficient and Secure Trust Based Ad Hoc Routing in MANET	255
<i>D. Santhosh Kumar, K. Thirunadana Sikamani</i>	
Design and Analysis of Various Slice Reduction Algorithm for Low Power and Area Efficient Fir Filter	259
<i>A. Umasankar, N. Vasudevan</i>	
Analysis on Data Collection Using Mobile Robot in Wireless Sensor Networks	264
<i>P. Rajaram, P. Prakasam</i>	
Performance Analysis of Mobile Sampling and Broadcast Scheduling in Wireless Sensor Networks	270
<i>R. Rajasekar, P. Prakasam</i>	
Maximum Power Point Tracking of Photovoltaic System Using Fuzzy Logic Controller Based Boost Converter	275
<i>Shilpa Sreekumar, Anish Benny</i>	
Development of Composite Materials by Rapid Prototyping Technology Using FDM Method	281
<i>S. Kannan, D. Senthilkumaran, K. Elangovan</i>	
Network Reconfiguration and Restoration in Distribution Systems Through Opposition Based Differential Evolution Algorithm and Pgsa	284
<i>R. Muthu Kumar, K. Thanushkodi</i>	
Practical Power System Operation Criterion and Expansion Planning Based Optimal Placement of Facts Controllers	291
<i>G. Balamurali, K. Thanushkodi</i>	
Improving Fault Tolerance and Load Balancing in Wireless Networks	296
<i>S. K. B. Rathika</i>	
Low Power and Area Efficient Reconfigurable FIR Filter Implementation in FPGA	301
<i>K. Gunasekaran, M. Manikandan</i>	
Industrial Drive Belt Tensioning Optimization	305
<i>R. R. Senthilkumar, K. Sooryaprakash</i>	
Environmental Causious Design of Subassemblies in 0.5 Hp Pump	308
<i>P. Prathap, D. Senthilkumaran, Pradeep Johnson</i>	
Illegal Packet Tracing and Track Hackers Using Ip Traceback Scheme	312
<i>K. S. Shala, G. Shenbagamoorthy</i>	
Design and Implementation of Nine Levels for H-bridge Inverter Using FPGA	316
<i>V. Maheswari, M. Manikandan</i>	
Certain Investigation of Precision Agriculture Robot Using Lab View	320
<i>S. Mohan, E. Praveen Kumar, B. Paulchamy</i>	
Design and Implementation of FPGA Based Invisible Image Watermarking Encoder Using Wavelet Transformation	324
<i>S. Kiran, K. V. Nadhini Sri, J. Jaya</i>	
A Framework for Dual Watermarking Scheme Under Fractional Transform	327
<i>R. Lavanya, N. Suguna</i>	
Resource Cost Reduction in Cloud Computing	332
<i>G. Anitha, P. Damodharan</i>	
Detecting Misbehavior Routing and Attacks in Disruption Tolerant Network Using Itrm	335
<i>K. Devi, P. Damodharan</i>	
A Noval Approach of Geofencing and Geotagging System Based Sea Border Identification Using Embedded System	339
<i>K. Prabakaran, N. Raj Kumar, G. Punitha, Sabana Asmi, B. Paulchamy</i>	
Certain Investigation on Image Compression Technique Using Wavelet Transform for Telemedicine Application	343
<i>S. Vairaprakash, A. Shenbagavalli</i>	
Design and Implementation Robots for Industrial and Medical Applications	348
<i>V. Madhu Kumar, R. Balamurugan, S. Navaneetha Krishnan, S. Dinesh Kumar, P. Nalin Kumar</i>	

Implementation of Network Layer Protocols in Wireless Networks for Efficient Routing	351
<i>S. Grace Diana, S. Janardhana, J. Jaya, K. J. Sabareesan</i>	
A Novel Approach of Organic Solar Cells Based on ZNO Nanowires Layer	355
<i>R. Preethi Nivedha, S. Balaji, J. Jaya</i>	
Neural Networks and Genetic Algorithm Based Intelligent Robot for Face Recognition and Obstacle Avoidance	358
<i>S. Arun, G. Harish, K. Salomon, R. Saravanan, K. Kalpana, J. Jaya</i>	
High Throughput Pipelined Implementation of Reconfigurable FIR Filter for SDR	364
<i>M. Gnanasekaran, M. Manikandan</i>	
Reduced Capacitor Voltage Stress and Soft-start Capability by Adding New ZSI for PMBLDC	367
<i>R. Murugesan, M. Manikandan</i>	
Improving Routing Performance in Disruption Tolerant Network	370
<i>S. Jeevitha, P. Damodharan</i>	
User Profile Creation Based on Navigation Pattern for Modeling User Behaviour with Personalised Search	373
<i>Josna Jojo, N. Sugana</i>	
Multiphase Text Mining Predictor for Market Analysis	377
<i>K. Kamatchi, A. Sivabalan</i>	
Aggregating Secure Data in Wireless Sensor Networks	383
<i>K. Parameswari, M. Mohamed Raseen</i>	
Optimizing the Network Lifetime Using PMAC in Wireless Sensor Networks	386
<i>S. Preetha, S. Balaji</i>	
Controlled Mobility Sensor Networks for Target Tracking Using Particle Swarm Optimization	390
<i>K. Selvaraj, S. Balaji</i>	
A Framework of Location Privacy and Minimum Average Communication Under the Global Eaves Dropper	394
<i>S. Sivashankari, M. Mohamed Raseen</i>	
Enhancing Security for Storage Services in Cloud Computing	398
<i>S. Suganya, P. Damodharan</i>	
Overcoming Neighbor-hood Based Collaborative Filtering in the Online Shopping for the User Recommendation	401
<i>G. Uma Maheshwari, N. Suguna</i>	
Mobile Web Browsing Based on Content Preserving with Reduced Cost	404
<i>V. Umashankari, N. Suguna</i>	
Enhanced Slicing Models for Preserving Privacy in Data Publication	408
<i>S. Kiruthika, M. Mohamed Raseen</i>	
Finding the DSoS Attacks in the Network Using Distance Based Routing	412
<i>P. Sowkarthiga, N. Suguna</i>	
Fully Selfish Node Detection, Deletion and Secure Replica Allocation Over Manet	415
<i>N. Muthumalathi, M. Mohamed Raseen</i>	
Pcloud Implementing Saas in Distributed System	418
<i>M. S. Kavitha, P. Damodharan</i>	
Secure Sharing of Financial Records with Third Party Application Integration in Cloud Computing	420
<i>K. Kanagasabapathi, S. Balaji</i>	
3G ATM	423
<i>Annamary Antony, R. Aswathy, K. H. Keerthana</i>	
Author Index	