Table of Contents

Full Papers

Solar Cell - A Novel Process Control Transducer	1
A Hybrid Aggregation Technique for Continuous-Monitoring in Wireless Sensor Networks	9
FLD-SIFT: Class Based Scale Invariant Feature Transform for Accurate Classification of Faces	15
Understanding the Performance of Multi-core Platforms	22
Improvisation of E-Learning System Using Web Services Composition	27
Artificial Neural Network Based Contingency Ranking	33
Detection and Tracking of Moving Object in Compressed Videos E. Jayabalan and A. Krishnan	39
An Enhanced Round Robin Policy for Real Time Traffic	44
A Novel Reconfigurable Video Burst Processor Offering High QoS B. Bag, A.K. Jana, and M.K. Pandit	51
Public Key Cryptography Based Approach for Securing SCADA Communications	56
gBeL: An Efficient Framework for e-Learning Using Grid Technology M.B. Geetha Manjusha, Suresh Jaganathan, and A. Srinivasan	63
An Algorithm Design to Evaluate the Security Level of an Information System	69
Duine Linuau. 1131160 106610. Ulta Mullicaec Duina	



Multi-agent Based Dynamic Data Integrity Protection in Cloud Computing	76
S. Venkatesan and Abhishek Vaish	
Design of Efficient Reversible Parallel Binary Adder/Subtractor H.G. Rangaraju, U. Venugopal, K.N. Muralidhara, and K.B. Raja	83
A Computationally Simplified Numerical Algorithm for Evaluating a Determinant	88
S.N. Sivanandam and V. Ramani Bai	
Deriving Association between Learning Behavior and Programming Skills	96
S. Charles, L. Arockiam, and V. Arul Kumar	
Analysis of a New Base Station Receiver for Increasing Diversity Order in a CDMA Cellular System	104
An Improved SRS Document Based Software Complexity Estimation and Its Robustness Analysis	111
A Novel Model for Software Effort Estimation Using Exponential Regression as Firing Interval in Fuzzy Logic	118
Fault Informant Distributed Deadlock Detection Using Colored Probes	128
Experiments with a Behavior-Based Robot	133
Investigation of Channel Capacity of Railway Power Lines for Track and Level Cross Monitoring Application	142
A Distributed Weighted Cluster Based Routing Protocol for MANETs	147
Naveen Chauhan, L.K. Awasthi, Narottam Chand, and Ankit Chugh	
ReeRisk - A Decisional Risk Engineering Framework for Legacy System Rejuvenation through Reengineering	152

Time Synchronization Approach in Wireless Sensor Network Surendra Rahamatkar, Ajay Agarwal, and Praveen Sen	159
Efficient Video Streaming in Wireless P2P Network Using HIS-MDC Technique	164
A Novel Framework for Target Tracking and Data Fusion in Wireless Sensor Networks Using Kernel Based Learning Algorithm	170
Low Power Lapped Bi-orthogonal Transform (LBT) for FPGA's	175
CASE-JigDFS: Context-Aware, Smart and Efficient JigDFS Network Anand Gupta, Ankit Kumar, and Hemant Malik	182
Novel Stock Market Prediction Using a Hybrid Model of Adptive Linear Combiner and Differential Evolution	187
Secure Self Organization of Wireless Sensor Network: A Need Based Approach Using Certificate Less Public Key Infrastructure	192
Design of High Resolution, Fast Locking, Low Power Multiphase-Output Delay Locked Loop	197
Dynamic Materialized View Selection Approach for Improving Query Performance	202
Approximate Pattern Matching for DNA Sequence Data	212
DFIG Based Wind Energy System (WES)	219
Modelling and Voltage Stability Enhancement Using "Sen" Transformer	224
DBAM: Novel User Based Bandwidth Allocation Mechanism in WiMAX	229

Applying a Predictive Approach for QoS Monitoring in Web Service Mahmoud Hossein Zadeh and Mir Ali Seyyedi	237
An Effective Performance of Fuzzy Hierarchical Clustering Using Time Series Data Streams	242
Credit Scoring Using PCA-SVM Hybrid Model	249
Energy Efficient Data Aggregation and Routing in Wireless Sensor Networks	254
Poster Papers	
Design of High Speed Optimized Flash ADC	260
Alleviating the Data Loss in Congested Sensor Networks Using a Differentiated Routing Methodology	264
Interoperable Dynamic Composite Web Service	267
A Message Passing System with Faulty Node Identification for Mobile Agents	270
Automatic Traffic Signal Controller for Roads by Exploiting Fuzzy Logic	273
Multimedia Conferencing for MANET in Cluster Based Signaling R. Ganeshan, Amritha Ramachandran, J. Thangakumar, and M. Roberts Masillamaní	278
Specification Based Test Case Generation Using Classification Tree Method	281
Mammogram Problem Solving Approach: Building CBR Classifier for Classification of Masses in Mammogram	284

Table of Contents	XIII
New Mutants Generation for Testing Java Programs	290
A Novel Approach to Hindi Text Steganography	295
Object Detection and Tracking in Videos Using Snake and Optical Flow Approach	299
An Improved Technique for Handling Information Regarding Location of Moving Object	302
Advanced Bioinformatics Approach in Machine Learning for Analyzing Genome Wide Expression Profiles and Proteomic Data Sets	305
Simulation and Performance Analysis of OLSR under Identity Spoofing Attack for Mobile Ad-Hoc Networks	308
Bayesian Belief Networks – Based Product Prediction for E-Commerce Recommendation	311
Yield Prediction Using Artificial Neural Networks	315
A Novel Approach for Matrix Chain Multiplication Using Greedy Technique for Packet Processing	318
Width of a General Tree for Packet Routing	322
Unified Knapsack Problem	325
Autonomous System Dealings in the Internet	331
Federated Query Processing Service in Service Oriented Business Intelligence	337
Comparative Study of P2P and Cloud Computing Paradigm Usage in Research Purposes	341
Vineet Sinha, Aditi Gupta, and Guneet Singh Kohli	91

of EVM and RCE for WiMAX Network
Budhaditya Bhattacharyya, Iti Saha Misra, and Salil Kumar Sanyal
Experimental Study of Rank 1 Chaos in Chua's Oscillator with Cubic Nonlinearity
A Novel Algorithm for the Implementation of PSO-Based SVM
Omega Loops of Proteins in <i>Homo Sapiens</i> : Role in Diseases
Voice Record on RISE (Radio Broadcasting Integrated System) on Air Application
Design of Hybrid Billboard with Scrolling Static Image and Remotely Updatable Matrix Display
Determining Factors of Online Auction Prices Analysis with Data Mining Algorithms on the Basis of Decision Trees
A Framework for Efficient Information Retrieval Using NLP Techniques
Modified Graph Spectra Approach for Music Information Retrieval Madhur Sarin
Comparative Analysis of CK Metrics across Object Oriented Languages
Integration of Spatial and Transform Domain in LSB Steganography K.B. Shiva Kumar, K.B. Raja, R.K. Chhotaray, and Sabyasachi Pattnaik
Rail Road Strategy for SJF Starvation Problem
A Descriptive Approach towards Data Warehouse and OLAP Technology: An Overview

G. Archana, B. Muruganantham, and J. Jayapradha

A New Buyer-Seller Watermarking Protocol with Discrete Cosine Transform
Ashwani Kumar, Mohd Dilshad Ansari, Jabir Ali, and Kapil Kumar
Efficient Non-chronological Dynamic Video Abstraction Using the Rack-Through Method
Target Tracking in Aerial Videos Using Image Registration Techniques
Cost Control and Quality Maintenance Metrics for Component- Based Software Development
Study of Process Variations on f_t in 30 nm Gate Length FinFET Using TCAD Simulations
A Cluster Based Multi-Radio Multi-Channel Assignment Approach in Wireless Mesh Networks
VSPACE: A New Secret Sharing Scheme Using Vector Space
Secure Group Deffie-Hellman Key Exchange with ID Based Cryptography
Computing with Enhanced Test Suite Reduction Heuristic
Robotic Arm with Finger Movement
Impulse Noise Removal in Digital Images Using Image Fusion Technique
Faster Arithmetic and Logical Unit CMOS Design with Reduced Number of Transistors

Dimensionality Reduction of Data Warehouse Using Wavelet Transformation: An Enhanced Approach for Business Process	523
Analysis of Adaptive Floating Search Feature Selection Algorithm D. Devakumari and K. Thangavel	526
Reconfigurable Vlsi Architecture for Graph Color Allocation with Its Chromatic Number	531
Hop-Count Filtering: A Successful Security Alongside Spoofed Network Traffic	535
Impulse Noise Reduction Using Mathematical Morphology J. Harikiran, R. Usha Rani, P.V. Lakshmi, Y. Anil Bharath, and A. Sindhura	539
Improving the QoS Routing for Mobile Ad Hoc Networks	544
An Approach towards Promoter Database Search Using Hidden Markov Model	547
Computational Characterization of CNT-Papain Interactions for Developing a Biosensor	553
A Fast Sentence Searching Algorithm	557
Early Congestion Detection and Self Cure Routing in Manet T. Senthil kumaran and V. Sankaranarayanan	562
WCDMA-Third Generation Radio Interface	568
Image Registration Using Mexican-Hat Wavelets and Invariant Moments	574
Centralized Management Approach for WLAN	578

XVIII Table of Contents

A New Metric Based Cluster Head Selection Technique for Increasing the Lifetime of Energy Aware Wireless Sensor Network	581
A Feature Extraction Algorithm with Minimum Entropy for Images $M.\ Sindhu$	587
Shot Boundary Detection Algorithm Based on Color Texture Moments B.H. Shekar, M. Sharmila Kumari, and Raghuram Holla	591
Secured and Authentic Communication by Combined Approach of Digital Watermarking and Steganography	595
Building and Controlling a Ball and Plate System	600
A VLSI Based Scheme for Implementation of BIBD	609
On 3D Streaming over Peer-to-Peer Networks	615
Secure Identity-Based Key Establishment Protocol	618
RSA Based Threshold Cryptography for Secure Routing and Key Exchange in Group Communication	624
Cooperative Caching Strategy in Mobile Ad Hoc Networks	628
Enhancement of Color Image Using Forth Order Partial Differential Equation Based on S-Type Enhancement	631
Log Based Recovery with Low Overhead for Mobile Computing Systems	637
Custom Processor Implementation of a Self Clocked Coding Scheme for Low Power RF Communication Systems	643

A Novel Message Routing in Unstructured P2P Using CIS and Ant	
Search Algorithm	649
M. Sadish Sendil, N. Nagarajan, U. Kaleelurrahaman, M. Kavitha, and S. Karthik	
Image Fusion Framework	653
An Enhancement to BioPPISVMExtractor Using Multidimensional	
Support Vector Machine	658
Industrial Monitoring Using Zigbee Network	663
Author Index	667

Table of Contents

XIX