

Contents

Image and Template Security for Palmprint	1
Munaga V. N. K. Prasad and B. Adinarayana	
Extending Network Lifetime by Time-Constrained Data Aggregation in Wireless Sensor Networks	11
K. B. Ashwini and G. T. Raju	
The Complex Network Analysis of Power Grid: A Case Study of the West Bengal Power Network	17
Himansu Das, Gouri Sankar Panda, Bhagaban Muduli and Pradeep Kumar Rath	
Comparison and Analysis of Node Deployment for Efficient Coverage in Sensor Network	31
Ram Shringar Raw, Shailender Kumar, Sonia Mann and Sambit Bakshi	
Performance Analysis of Routing Protocols for VANETs with Real Vehicular Traces	45
Sanjoy Das, Ram Shringar Raw, Indrani Das and Rajib Sarkar	
A Bluetooth-Based Autonomous Mining System	57
Saikat Roy, Soumalya Sarkar and Avranil Tah	
Transistor Representation of a Low-Power Reversible 32-Bit Comparator	67
A. V. AnanthaLakshmi and G. F. Sudha	
Performance Enhancement of Brillouin Distributed Temperature Sensor Using Optimized Fiber	81
P. K. Sahu and Himansu Shekhar Pradhan	

To Study the Architectural Designs of a Proposed Comprehensive Software Extractor for Reengineering Tool: A Literature Survey	91
Rashmi Yadav, Abhay Kothari and Ravindra Patel	
Detection of Web-Based Attacks by Analyzing Web Server Log Files	101
Nanhay Singh, Achin Jain, Ram Shringar Raw and Rahul Raman	
A Survey of Energy-Aware Routing Protocols and Mechanisms for Mobile Ad Hoc Networks	111
Charu Gandhi and Vivek Arya	
Lexical Ontology-Based Computational Model to Find Semantic Similarity	119
Jagendra Singh and Aditi Sharan	
Energy-Efficient Cluster-Based Aggregation Protocol for Heterogeneous Wireless Sensor Networks	129
Prakashgoud R. Patil and Umakant P. Kulkarni	
Digital Watermarking Based on Magic Square and Ridgelet Transform Techniques	143
Rama Seshagiri Rao Channapragada and Munaga V. N. K. Prasad	
Circle of Trust: One-Hop-Trust-Based Security Paradigm for Resource-Constraint MANET	163
K. M. Imtiaz-Ud-Din, Touhid Bhuiyan and Shamim Ripon	
Design of a Biometric Security System Using Support Vector Machine Classifier	173
J. Manikandan, V. K. Agrawal and B. Venkataramani	
Impact of Distance Measures on the Performance of Clustering Algorithms	183
Vijay Kumar, Jitender Kumar Chhabra and Dinesh Kumar	
Gender Identification Using Gait Biometrics	191
Richa Shukla, Reenu Shukla, Anupam Shukla and Nirupama Tiwari	
A Survey on Business Context	199
Danijel Novakovic and Christian Huemer	

Enhanced Caching for Geocast Routing in Vehicular Ad Hoc Network	213
Omprakash Kaiwartya and Sushil Kumar	
Cooperation Enforcement and Collaboration Inducement in Mobile Ad Hoc Networks	221
Ghyani Umesh Kumar Maurya and Sushil Kumar	
Uncoupling of Mobile Cloud Computing Services: An Architectural Perspective	233
Sohini De and Suddhasil De	
Non-subsampled Contourlet Transform-Based Image Denoising in Ultrasound Images Using Elliptical Directional Windows and Block-Based Noise Estimation	241
J. Jai Jaganath Babu and Gnanou Florence Sudha	
Marathi Parts-of-Speech Tagger Using Supervised Learning.	251
Jyoti Singh, Nisheeth Joshi and Iti Mathur	
Design and Evaluation of N-Module Reconfigurable Systems	259
Kunal Yogeshkumar Parikh, J. Manikandan and V. K. Agrawal	
Genre-Based Classification of Song Using Perceptual Features	267
Arijit Ghosal, Rudrasis Chakraborty, Bibhas Chandra Dhara and Sanjoy Kumar Saha	
Novel Distributed Dual Beamforming for Randomly Distributed Sensor by Phase Tracking Using Bilateral Probability Function	277
G. Vaikundam and G. F. Sudha	
Electrical Network Modeling of Amino Acid String and Its Application in Cancer Cell Prediction	293
T. Roy, S. Das and S. Barman	
Generation of AES-like 8-bit Random S-Box and Comparative Study on Randomness of Corresponding Ciphertexts with Other 8-bit AES S-Boxes	303
S. Das	
BCube-IP: BCube with IP Address Hierarchy	319
A. R. Ashok Kumar, S. V. Rao and Diganta Goswami	

Image Retrieval Using Fuzzy Color Histogram and Fuzzy String Matching: A Correlation-Based Scheme to Reduce the Semantic Gap	327
Nidhi Goel and Priti Sehgal	
A Multi-Objective Optimization Approach for Lifetime and Coverage Problem in Wireless Sensor Network	343
Anil Kumar Sagar and D. K. Lobiyal	
Evaluation of English-to-Urdu Machine Translation	351
Vaishali Gupta, Nisheeth Joshi and Iti Mathur	
A Novel Edge Detection Technique for Multi-Focus Images Using Image Fusion.	359
Priya Ranjan Muduli and Umesh Chandra Pati	
Event Detection Refinement Using External Tags for Flickr Collections.	369
Sheba Selvam, B. Ramadoss and S. R. Balasundaram	
Proposed Threshold Based Certificate Revocation in Mobile Ad Hoc Networks	377
Priti Swapnil Rathi and Parikshit N. Mahalle	
“Bin SDR”: Effective Algorithm for Wireless Sensor–Actor Network.	389
M. E. Sanap and Rachana A. Satao	
An Elliptic-Curve-Based Hierarchical Cluster Key Management in Wireless Sensor Network.	397
Srikanta Kumar Sahoo and Manmanth Narayan Sahoo	
Probabilistic Approach-Based Congestion-Aware Swarm-Inspired Load-Balancing Multipath Data Routing in MANETs.	409
Subhankar Joardar, Debasis Giri and Vandana Bhattacharjee	
Integration of Eco-Friendly POF-Based Splitter and Optical Filter for Low-Cost WDM Network Solutions	423
Archana Rathore	
Sensor Cloud: The Scalable Architecture for Future Generation Computing	433
Subasish Mohapatra, Banshidhar Majhi and Srikanta Patnaik	

Partial Fingerprint Matching Using Minutiae Subset	445
S. Asha and C. Chellappan	
Genetic Algorithm-Based Approach for Adequate Test Data Generation	453
Swagatika Swain and D. P. Mohapatra	
ISA: An Intelligent Search Algorithm for Peer-to-Peer Networks . . .	463
Mahdi Ghorbani, Mohammad Jooyan and Mostafa Safarpour	
Modified Graph-Cut Algorithm with Adaptive Shape Prior	473
Adonu Celestine and J. Dinesh Peter	
Analysis on Optimization of Energy Consumption in Mobile Ad Hoc Networks	481
A. Karmel and C. Jayakumar	
Accuracy of Atomic Transaction Scenario for Heterogeneous Distributed Column-Oriented Databases	491
Ramesh Dharavath, Amit Kumar Jain, Chiranjeev Kumar and Vikas Kumar	
Implantable CPW-fed Double-Crossed-Type Triangular Slot Antenna for ISM Band	503
S. Ashok Kumar and T. Shanmuganantham	
Training a Feed-Forward Neural Network Using Artificial Bee Colony with Back-Propagation Algorithm	511
Partha Pratim Sarangi, Abhimanyu Sahu and Madhumita Panda	
Navigation of Autonomous Mobile Robot Using Adaptive Neuro-Fuzzy Controller	521
Prases Kumar Mohanty and Dayal R. Parhi	
Performance Estimation of Fuzzy Logic-Based Mobile Relay Nodes in Dense Multihop Cellular Networks	531
Devendra Gurjar, Ajay Bhardwaj and Ashutosh Singh	
Local Binary Pattern as a Texture Feature Descriptor in Object Tracking Algorithm	541
Prajna Parimita Dash, Dipti Patra and Sudhansu Kumar Mishra	

A Sensor-Based Technique for Speed Invariant Human Gait Classification	549
Anup Nandy, Soumabha Bhowmick, Pavan Chakraborty and G. C. Nandi	
High-Speed 100 Gbps/Channel DWDM System Design and Simulation	557
Bijayananda Patnaik and P. K. Sahu	
Performance Analysis of Contention-Based Ranging Mechanism for Idle-Mode Mobility	565
Rajesh Anbazhagan and Nakkeeran Rangaswamy	
A Novel Approach to Face Detection Using Advanced Support Vector Machine.	573
Swastik Mohapatra, Asutosh Kar, Satyanarayan Dash, Sidhant Mohanty and Prasant Swain	
Concept Based Clustering of Documents with Missing Semantic Information	579
E. Anupriya and N. Ch. S. N. Iyengar	
Theoretical Validation of New Class Cohesion Metric Against Briand Properties	591
Sandip Mal and Kumar Rajnish	
RF-SEA-Based Feature Selection for Data Classification in Medical Domain	599
S. Sasikala, S. Appavu alias Balamurugan and S. Geetha	
Optimizing Delay for MAC in Randomly Distributed Wireless Sensor Networks	609
Ajay Sikandar, Sushil Kumar and Ghayani Umesh Kumar Maurya	
An Ontology-Based Software Development Environment Using Upgraded Functionalities of Clojure.	619
Mary Alias and C. R. Rene Robin	
Using a Cluster for Efficient Scalability Evaluation of Multithreaded and Event-Driven Web Servers	627
Syed Mutahar Aaqib and Lalitsen Sharma	
An Overview of Detection Techniques for Metamorphic Malware. . .	637
Pratiksha Natani and Deepti Vidyarthi	

Temporal Forensics of MPEG Video Using Discrete Wavelet Transform and Support Vector Machine	645
Sunil Jaiswal and Sunita Dhavale	
Securing the Root Through SELinux	653
Ananya Chatterjee and Arun Mishra	
Automatic Ontology Extraction from Heterogeneous Documents for E-Learning Applications	661
J. Jeslin Shanthamalar and C. R. Rene Robin	
An Appraisal of Service-Based Virtual Networks and Virtualization Tools Paves the Way Toward Future Internet	667
Bhisham Sonkar, Devendra Chaphekar and Gupteshwar Gupta	
Comparative Analysis and Research Issues in Classification Techniques for Intrusion Detection	675
Himadri Chauhan, Vipin Kumar, Sumit Pundir and Emmanuel S. Pilli	
An Apriori-Based Vertical Fragmentation Technique for Heterogeneous Distributed Database Transactions	687
Ramesh Dharavath, Vikas Kumar, Chiranjeev Kumar and Amit Kumar	
A Speech Recognition Technique Using MFCC with DWT in Isolated Hindi Words	697
Neha Baranwal, Ganesh Jaiswal and G. C. Nandi	
Mechanism for Preventing Registration Flooding Attack in SIP	705
Bosco Sebastian, Paromita Choudhury and C. D. Jaidhar	
A Combined Approach: Proactive and Reactive Failure Handling for Efficient Job Execution in Computational Grid	713
P. Latchoumy and P. Sheik Abdul Khader	
A Comparative Analysis of Keyword- and Semantic-Based Search Engines	727
Yogender Singh Negi and Suresh Kumar	
Slicing MATLAB Simulink/Stateflow Models	737
Adepu Sridhar and D. Srinivasulu	
Link Mining Using Strength of Frequent Pattern of Interaction	745
Seema Mishra and G. C. Nandi	

Integration of HSV Color Histogram and LMEBP Joint Histogram for Multimedia Image Retrieval	753
K. Prasanthi Jasmine and P. Rajesh Kumar	
DBC Co-occurrence Matrix for Texture Image Indexing and Retrieval	763
K. Prasanthi Jasmine and P. Rajesh Kumar	
M-Band and Rotated M-Band Dual-Tree Complex Wavelet Transform for Texture Image Retrieval	775
K. Prasanthi Jasmine and P. Rajesh Kumar	
A Rank-Based Hybrid Algorithm for Scheduling Data- and Computation-Intensive Jobs in Grid Environments	785
Mohsen Abdoli, Reza Entezari-Maleki and Ali Movaghar	
Performance Evaluation of Video Communications Over 4G Network	797
Gaurav Pande	
Online Hybrid Model for Online Fraud Prevention and Detection . . .	805
Ankit Mundra and Nitin Rakesh	
An Efficient Approach to Analyze Users' Interest on Significant Web Access Patterns with Period Constraint	817
M. Thilagu and R. Nadarajan	
Efficient Privacy Preserving Distributed Association Rule Mining Protocol Based on Random Number	827
Reena Kharat, Madhuri Kumbhar and Preeti Bhamre	
Directional Local Quinary Patterns: A New Feature Descriptor for Image Indexing and Retrieval	837
Santosh Kumar Vipparthi and S. K. Nagar	
Data Mining Approach for Developing Various Models Based on Types of Attack and Feature Selection as Intrusion Detection Systems (IDS)	845
H. S. Hota and Akhilesh Kumar Shrivastava	
Facial Expression Recognition Using Local Binary Patterns with Different Distance Measures.	853
Sarika Jain, Sunny Bagga, Ramchand Hablani, Narendra Chaudhari and Sanjay Tanwani	

Cluster-Based Routing for Optimal Communication in Port Logistics	863
J. Thejo Kishan, M. M. Manohara Pai and Radhika M. Pai	
Secure Adaptive Traffic Lights System for VANETs	873
Kishore Biradar, Radhika M. Pai, M. M. Manohara Pai and Joseph Mouzana	
Analysis of Image Segmentation Techniques on Morphological and Clustering	885
M. Sivagami and T. Revathi	
Performance Impact of TCP and UDP on the Mobility Models and Routing Protocols in MANET	895
Sunil Kumar Singh, Rajesh Duvvuru and Jyoti Prakash Singh	
A Survey on Video Segmentation	903
Dalton Meitei Thounaojam, Amit Trivedi, Kh. Manglem Singh and Sudipta Roy	
A New Paradigm for Open Source Software Development	913
Sushil Kumar, Ranjeet Ranjan and Amit Kumar Trivedi	
A Real-Time Signature Verification Technology Using Clustering and Statistical Analysis	919
Joshane Kelsy and Rajib Sarkar	
Component-Aspect Separation-Based Slicing of Aspect-Oriented Programs	931
Jagannath Singh, Durga Prasad Mohapatra and Pabitra Mohan Khilar	
Evaluation of Software Understandability Using Rough Sets	939
D. Srinivasulu, Adepu Sridhar and Durga Prasad Mohapatra	
HCDLST: An Indexing Technique for Current and Recent-Past Sliding Window Spatio-Temporal Data	947
Kuleshwar Sahu, Sangharatna J. Godbole and S. K. Jain	
Solving Planar Graph Coloring Problem Using PSO with SPV Rule	955
Vaibhav Bhardwaj and Sudhanshu Prakash Tiwari	

Weather Prediction Using Error Minimization Algorithm on Feedforward Artificial Neural Network	967
Arti R. Naik, Pathan Mohd. Shafi and Shyamsunder P. Kosbatwar	
Mining Association Rules Using Adaptive Particle Swarm Optimization	975
K. Indira, S. Kanmani, V. Ashwini, B. Rangalakshmi, P. Divya Mary and M. Sumithra	
Study of Framework of Mobile IP and MANET Integration	985
Devendra Chaphekar, Bhisham Sonkar and Gupteshwar Gupta	
Delay Analysis of Various Links Using OPNET Simulator	993
Pooja Singh, Chitosia Anamika, C. K. Jha and Anup Bhola	
GenSeeK: A Novel Parallel Multiple Pattern Recognition Algorithm for DNA Sequences	1001
Kaliuday Ballela, D. Satyanvesh and P. K. Baruah	
Improvement of PAPR in OFDM Systems Using SLM Technique and Digital Modulation Schemes	1007
Srinu Pyla, K. Padma Raju and N. BalaSubrahmanyam	
Radioactive Pollution Monitoring Using Triangular Deployment in Wireless Sensor Network	1019
Ankit Khare and Nitin Nitin	
Securing Networks Using Situation-Based Firewall Policy Computations	1029
Vijender Kumar Solanki, Kumar Pal Singh, M. Venkatesan and Sudhanshu Raghuwanshi	
Color Image Quantization Scheme Using DBSCAN with K-Means Algorithm	1037
Kumar Rahul, Rohit Agrawal and Arup Kumar Pal	
A Novel Approach to Text Steganography Using Font Size of Invisible Space Characters in Microsoft Word Document	1047
Susmita Mahato, Dilip Kumar Yadav and Danish Ali Khan	
Personalizing News Documents Using Modified Page Rank Algorithms.	1055
S. Akhilan and S. R. Balasundaram	

Understanding Query Vulnerabilities for Various SQL Injection Techniques	1063
U. Chandrasekhar and Digvijay Singh	
Effective Ontology Alignment: An Approach for Resolving the Ontology Heterogeneity Problem for Semantic Information Retrieval	1077
Ankita Kandpal, R. H. Goudar, Rashmi Chauhan, Shalini Garg and Kajal Joshi	
Classification Technique for Improving User Access on Web Log Data	1089
Bina Kotiyal, Ankit Kumar, Bhaskar Pant and R. H. Goudar	
A Review on Methods for Query Personalization	1099
Shivangi Sharma and Prachi Gupta	
A Wideband Compact Microstrip Antenna for DCS/PCS/WLAN Applications	1107
Vinod Kumar Singh, Zakir Ali, Ashutosh Kumar Singh and Shahanaz Ayub	
Analysis of Type-2 Fuzzy Systems for WSN: A Survey	1115
Megha Sharma and Ashutosh Kumar Singh	
Fusion of Entropy-Based Color Space Selection and Statistical Color Features for Ripeness Classification of Guavas	1125
Suchitra Khoje and S. K. Bodhe	
Optimal Positioning of Base Station in Wireless Sensor Networks: A Survey	1135
Perna Meena, Devendra Gurjar, Ashutosh Kumar Singh and Shekhar Verma	
Testing and Implementation Process in Automation of a University	1145
Vaibhav Sharma, Jyoti Singh and A. S. Zadgaonkar	
Performance of Spectral Efficiency and Blocking Probability Using Distributed Dynamic Channel Allocation	1153
Y. S. V. Raman, S. Sri Gowri and B. Prabhakara Rao	

An Effective Content-Based Image Retrieval Using Color, Texture and Shape Feature	1163
Milind V. Lande, Praveen Bhanodiya and Pritesh Jain	
Underwater Communication with IDMA Scheme	1171
Tanuja Pande, Kulbhushan Gupta, M. Shukla, Prachi Tripathi and Ashutosh Singh	
M-ARY PSK Modulation Technique for IDMA Scheme	1179
Pratibha Verma, Sanjiv Mishra, M. Shukla and Ashutosh Singh	
A Novel Approach for Eye Gaze and Tilt Estimation	1187
Sambit Bakshi, Rahul Raman and Pankaj K. Sa	
Enhanced Single-Pass Algorithm for Efficient Indexing Using Hashing in Map Reduce Paradigm.	1195
Piyush Kumar Sinha, Prashant Joshi, Pooja Pundir, Manisha Negi and R. H. Goudar	
Data Structures for IP Lookups, A Comparative Analysis with Scalability to IPV6.	1201
Soumyadeep Ghosh, Oaindirila Das and Arindam Majumdar	
Multiobjective Clustering Using Support Vector Machine: Application to Microarray Cancer Data.	1209
Anita Bai	
Prediction of Warning Level in Aircraft Accidents using Classification Techniques: An Empirical Study.	1217
A. B. Arockia Christopher and S. Appavu Alias Balamurugan	
Fuzzy TOPSIS Method Applied for Ranking of Teacher in Higher Education	1225
H. S. Hota, L. K. Sharma and S. Pavani	
Performance Analysis of Transformation Methods in Multi-Label Classification	1233
P. K. A. Chitra and S. Appavu Alias Balamurugan	
Predictive Data Mining Techniques for Forecasting Tamil Nadu Electricity Board (TNEB) Load Demand: An Empirical Study	1241
T. M. Usha and S. Appavu Alias Balamurugan	

Novel Approach for Finding Patterns in Product-Based Enhancement Using Labeling Technique	1249
Hemant Palivela, H. K. Yogish, N. Shalini and S. N. Raghavendra	
Optimal Path and Best-Effort Delivery in Wireless Sensor Networks	1257
Vipin Kumar and Sushil Kumar	
Spanning-Tree-Based Position-Based Routing in WSNs.	1267
Vipin Kumar and Sushil Kumar	
Feature Extraction and Classification of Microarray Cancer Data Using Intelligent Techniques	1277
Anita Bai and Anima Pradhan	
Survey of Route Choice Models in Transportation Networks	1285
Madhavi Sharma, Jitendra Kumar Gupta and Archana Lala	
Secure Routing Technique in MANET: A Review.	1291
Aartika Chandrakar and Rajib Sarkar	
About the Editors	1309
Author Index	1311

Intelligent Computing, Networking, and Informatics
Proceedings of the International Conference on
Advanced Computing, Networking, and Informatics,
India, June 2013

Mohapatra, D.P.; Patnaik, S. (Eds.)

2014, XXVI, 1314 p. 550 illus., Softcover

ISBN: 978-81-322-1664-3