

Contents

Simulation Studies on Distortion of EAS Muons by the Earth's Magnetic Field	1
Sandip Dam, Rajat Kumar Dey and Arunava Bhadra	
A Detailed Survey on Misbehavior Node Detection Techniques in Vehicular Ad Hoc Networks.	11
Uzma Khan, Shikha Agrawal and Sanjay Silakari	
Detect Mimicry by Enhancing the Speaker Recognition System	21
Soumen Kanrar and Prasenjit Kumar Mandal	
SPICE Modeling and Analysis for Metal Island Ternary QCA Logic Device	33
Pritam Bhattacharjee, Kunal Das, Mallika De and Debashis De	
Text Independent Speaker and Emotion Independent Speech Recognition in Emotional Environment	43
A. Revathi and Y. Venkataramani	
Two-Level Multivariate Fuzzy Logic Based Integrated Model for Monsoon Rainfall Prediction.	53
Mahua Bose and Kalyani Mali	
Feed Forward Neural Network Approach for Reversible Logic Circuit Simulation in QCA	61
Arijit Dey, Kunal Das, Sanjoy Das and Mallika De	
Large Vocabulary Speech Recognition: Speaker Dependent and Speaker Independent	73
G. Hemakumar and P. Punitha	

Optimization of Ultra Wide-Band Printed Monopole Square Antenna Using Differential Evolution Algorithm	81
Sharmin Shabnam, Suvrajit Manna, Udit Sharma and Pinaki Mukherjee	
An Efficient Cloud Network Intrusion Detection System	91
Partha Ghosh, Abhay Kumar Mandal and Rupesh Kumar	
Mobile WiMAX Physical Layer Optimization and Performance Analysis Towards Sustainability and Ubiquity	101
Sajal Saha, Angana Chakraborty, Asish K. Mukhopadhyay and Anup Kumar Bhattacharjee	
Comparision of Classifiers Accuracies from FAVF and NOFI for Categorical Data	113
D. Lakshmi Sreenivasa Reddy, B. Raveendra Babu, A. Govardhan, A. Kalpana and Mudimbi Krishna Murthy	
Multi Objective Optimization on Clustered Mobile Networks: An ACO Based Approach	123
Sujoy Sett and Parag K. Guha Thakurta	
A Trade-off Analysis of Quality of Service (QoS) Metrics Towards Routing in Mobile Networks: MOGA Based Approach	135
Aritra Rudra, Parag Kumar Guha Thakurta and Rajarshi Poddar	
Advanced Bi-directional Home Appliance Communicator with Security System	145
Nilava Debabhuti, Sougata Das, Sayantan Dutta, Anusree Sarkar and Apurba Ghosh	
Cyber Attack and Control Techniques	157
Apeksha Prajapati and Bimal Kumar Mishra	
Design of Queue-Based Group Key Agreement Protocol Using Elliptic Curve Cryptography	167
Priyanka Jaiswal, Abhimanyu Kumar and Sachin Tripathi	
Solving Multi-level Image Thresholding Problem—An Analysis with Cuckoo Search Algorithm	177
B. Abhinaya and N. Sri Madhava Raja	

Comparing Efficiency of Software Fault Prediction Models Developed Through Binary and Multinomial Logistic Regression Techniques	187
Dipti Kumari and Kumar Rajnish	
Performance Modeling of Unified TDPC in IEEE 802.16e WiMAX	199
Rewa Sharma, C.K. Jha and Meha Sharma	
EmET: Emotion Elicitation and Emotion Transition Model.	209
Shikha Jain and Krishna Asawa	
Analysis on Intelligent Based Navigation and Path Finding of Autonomous Mobile Robot.	219
Prabin Kumar Panigrahi and Hrudya Kumar Tripathy	
Performance Analysis of Chaotic Lévy Bat Algorithm and Chaotic Cuckoo Search Algorithm for Gray Level Image Enhancement	233
Krishna Gopal Dhal, Md. Iqbal Quraishi and Sanjoy Das	
Password Recovery Mechanism Based on Keystroke Dynamics	245
Soumen Roy, Utpal Roy and D.D. Sinha	
Performance Analysis of RC4 and Some of Its Variants	259
Suman Das, Hemanta Dey and Ranjan Ghosh	
Optimal Image Segmentation of Cancer Cell Images Using Heuristic Algorithms	269
A. Atchaya, J.P. Aashiha and R. Vijayarajan	
Improvement of Data Integrity and Data Dynamics for Data Storage Security in Cloud Computing.	279
Poonam M. Pardeshi and Bharat Tidke	
An Improvised Extractive Approach to Hindi Text Summarization	291
K. Vimal Kumar and Divakar Yadav	
Graph Based Technique for Hindi Text Summarization	301
K. Vimal Kumar, Divakar Yadav and Arun Sharma	

Generating Empty Convex Polygon Randomly from a Subset of Given Point Set	311
Manas Kumar Mohanty, Sanjib Sadhu, Niraj Kumar and Kamaljit Pati	
A Symmetric Key Cryptographic Technique Based on Frame Rotation of an Even Ordered Square Matrix	319
Joyita Goswami (Ghosh) and Manas Paul	
A PSO Based Fault Tolerant Routing Algorithm for Wireless Sensor Networks	329
Md Azharuddin and Prasanta K. Jana	
Smallest Square Covering k Points for Large Value of k	337
Priya Ranjan Sinha Mahapatra	
Connectionist Approach for Emission Probability Estimation in Malayalam Continuous Speech Recognition	343
Anuj Mohamed and K.N. Ramachandran Nair	
Design of an Aperture Type Frequency Selective Surface with Sharp Roll -off	353
Poulami Samaddar, Sushanta Sarkar, Srija De, Sushanta Biswas, Debasree Chanda Sarkar and Partha Pratim Sarkar	
Effective Classification and Categorization for Categorical Sets: Distance Similarity Measures	359
Heba Ayseldeen, Mahmood A. Mahmood and Aboul Ella Hassanien	
Case-Based Reasoning: A Knowledge Extraction Tool to Use	369
Heba Ayseldeen, Olfat Shaker, Osman Hegazy and Aboul Ella Hassanien	
Implementation of New Framework for Image Encryption Using Arnold 3D Cat Map	379
Kunal Kumar Kabi, Bidyut Jyoti Saha, Arun Chauhan and Chittaranjan Pradhan	
Case Selection Strategy Based on K-Means Clustering	385
Heba Ayseldeen, Osman Hegazy and Aboul Ella Hassanien	
Cloud Computing Framework for Solving Virtual College Educations: A Case of Egyptian Virtual University	395
Hany Soliman Alnashar, Mohamed Abd Elfattah, M.M. Mosbah and Aboul Ella Hassanien	

Scheme for Compressing Video Data Employing Wavelets and 2D-PCA	409
Manoj K. Mishra and Susanta Mukhopadhyay	
A Hierarchical Optimization Method to Solve Environmental-Economic Power Generation and Dispatch Problem with Fuzzy Data Uncertainty	419
Bijay Baran Pal and Mousumi Kumar	
Reverse Logistic Model for Deteriorating Items with Non-instantaneous Deterioration and Learning Effect	435
S.R. Singh and Himanshu Rathore	
On the Implementation of a Saliency Based Digital Watermarking	447
Abhishek Basu, Susmita Talukdar, Nabanita Sengupta, Avradeeta Kar, Satrajit Lal Chakraborty and Subir Kumar Sarkar	
Interval Goal Programming Approach to Multiobjective Programming Problems with Fuzzy Data Uncertainty	457
Shyamal Sen and Bijay Baran Pal	
Modeling Indian General Elections: Sentiment Analysis of Political Twitter Data.	469
Kartik Singhal, Basant Agrawal and Namita Mittal	
Model Based Test Case Generation and Optimization Using Intelligent Optimization Agent	479
Prateeva Mahali, Arup Abhinna Acharya and Durga Prasad Mohapatra	
Automatic Generation of Domain Specific Customized Signatures for an Enterprise Intrusion Detection System Based on Sentimental Analysis.	489
K.V.S.N. Rama Rao and Sudheer Kumar Battula	
An Efficient Technique for Solving Fully Fuzzified Multiobjective Stochastic Programming Problems	497
Animesh Biswas and Arnab Kumar De	
$L(4, 3, 2, 1)$-Labeling for Simple Graphs.	511
Soumen Atta and Priya Ranjan Sinha Mahapatra	

Compact, Multi-band Microstrip Antenna with High Gain	519
Srija De, Poulami Samaddar, Sushanta Sarkar, Sushanta Biswas, Debasree Sarkar and Partha Pratim Sarkar	
Remote Access Control Mechanism Using Rabin Public Key Cryptosystem	525
Ruhul Amin and G.P. Biswas	
Intelligent Energy Competency Multipath Routing in WANET	535
Santosh Kumar Das, Sachin Tripathi and A.P. Burnwal	
An Improved Swarm Based Hybrid K-Means Clustering for Optimal Cluster Centers	545
Janmenjoy Nayak, Bighnaraj Naik, D.P. Kanungo and H.S. Behera	
Some More Properties of Covering Based Pessimistic Multigranular Rough Sets	555
B.K. Tripathy and K. Govindarajulu	
Performance Analysis of MC-CDMA in Rayleigh Channel Using Walsh Code with BPSK Modulation	565
S. Kuzhaloli and K.S. Shaji	
Dual-Band Microstrip Patch Antenna Loaded with Complementary Split Ring Resonator for WLAN Applications	573
Kumaresh Sarmah, Angan Sarma, Kandarpa Kumar Sarma and Sunandan Baruah	
Parallel Implementation of FP Growth Algorithm on XML Data Using Multiple GPU	581
Sheetal Rathi and C.A. Dhote	
A Convergence Analysis of The Deterministic Ant System Model.	591
Abhishek Paul, Swatantra Saha, Suraj Kumar Chaubey and Sumitra Mukhopadhyay	
EAST: Exploitation of Attacks and System Threats in Network.	601
Sachin Ahuja, Rahul Johari and Chetna Khokhar	
Efficient Set Routing for Continuous Patient Monitoring Wireless Sensor Network with Mobile Sensor Nodes	613
M.S. Godwin Premi, Betty Martin and S. Maflin Shaby	

Overview of Cluster Based Routing Protocols in Static and Mobile Wireless Sensor Networks	619
Sachin R. Jain and Nileshsingh V. Thakur	
A 2 Dot 1 Electron Quantum Cellular Automata Based Parallel Memory	627
Mili Ghosh, Debarka Mukhopadhyay and Paramartha Dutta	
Stochastic Simulation Based GA Approach to Solve Chance Constrained Bilevel Programming Problems in Inexact Environment	637
Debjani Chakraborti and Bijay Baran Pal	
Highly Discriminative Features for Phishing Email Classification by SVD.	649
Masoumeh Zareapoor, Pourya Shamsolmoali and M. Afshar Alam	
Signature Based Semantic Intrusion Detection System on Cloud	657
S. Sangeetha, B. Gayathri devi, R. Ramya, M.K. Dharani and P. Sathya	
Fuzzy Based Quality of Service Analysis of Scheduler for WiMAX Networks.	667
Akashdeep	
Color Image Compression Based on Block Truncation Coding Using Clifford Algebra.	675
Kartik Sau, Ratan Kumar Basak and Amitabha Chanda	
Performance Evaluation of Underground Mine Communication and Monitoring Devices: Case Studies	685
Alok Ranjan, H.B. Sahu and Prasant Misra	
Fuzzy Goal Programming Approach for Solving Congestion Management Problem in Electrical Transmission Network Using Genetic Algorithm	695
Bijay Baran Pal and Papun Biswas	
A Real-Time Machine Learning Approach for Sentiment Analysis	705
Souvik Sarkar, Partho Mallick and Aiswaryya Banerjee	
Benchmark Function Analysis of Cuckoo Search Algorithm	719
Joyita Basak, Sangita Roy and Sheli Sinha Chaudhuri	

Study of NLFSR and Reasonable Security Improvement on Trivium Cipher	731
Subhrajyoti Deb, Bhaskar Biswas and Nirmalya Kar	
A No Reference Image Authentication Scheme Based on Digital Watermark	741
Sukalyan Som, Suman Mahapatra and Sayani Sen	
Energy Efficient Routing Approaches in Ad hoc Networks: A Survey	751
Jenish Gandhi and Rutvij Jhaveri	
Construction of Co-expression and Co-regulation Network with Differentially Expressed Genes in Bone Marrow Stem Cell Microarray Data	761
Paramita Biswas, Bandana Barman and Anirban Mukhopadhyay	
Identifying Two of Tomatoes Leaf Viruses Using Support Vector Machine	771
Usama Mokhtar, Mona A.S. Ali, Aboul Ella Hassanien and Hesham Hefny	
A Hierarchical Convex Polygonal Decomposition Framework for Automated Shape Retrieval	783
Sourav Saha, Jayanta Basak and Priya Ranjan Sinha Mahapatra	
A Selective Bitplane Based Encryption of Grayscale Images with Tamper Detection, Localization and Recovery Based on Watermark	793
Sukalyan Som, Sayani Sen, Suman Mahapatra and Sarbani Palit	
An Incremental Feature Reordering (IFR) Algorithm to Classify Eye State Identification Using EEG	803
Mridu Sahu, N.K. Nagwani, Shrish Verma and Saransh Shirke	
Wireless Body Area Networks: A Review with Intelligent Sensor Network-Based Emerging Technology	813
Shabana Mehfuz, Shabana Urooj and Shivaji Sinha	
Flow Regime Prediction Using Artificial Neural Networks for Air-Water Flow Through 1–5 mm Tubes in Horizontal Plane	823
Nirjhar Bar, Manindra Nath Biswas and Sudip Kumar Das	

Study of Wireless Communication Through Coal Using Dielectric Constant.	831
Aindrila Bhattacharjee, Sourav Roy, Sayan Chakraborty, Amartya Mukherjee and Soumya Kanti Bhattacharya	
Performance Evaluation of Heuristic Algorithms for Optimal Location of Controllers in Wireless Networks	843
Dac-Nhuong Le	
MECAR: Maximal Energy Conserved and Aware Routing in Ad hoc Networks.	855
Podoli V.S. Sriniva, Maddhi Sunitha and Temberveni Venugopal	
Raga Classification for Carnatic Music.	865
S.M. Suma and Shashidhar G. Koolagudi	
A Novel Approach for Feature Selection.	877
Ch. Swetha Swapna, V. Vijaya Kumar and J.V.R. Murthy	
Errata to: $L(4, 3, 2, 1)$-Labeling for Simple Graphs.	E1
Author Index	887

Information Systems Design and Intelligent Applications
Proceedings of Second International Conference INDIA
2015, Volume 1

Mandal, J.K.; Satapathy, S.C.; Kumar Sanyal, M.; Sarkar,
P.P.; Mukhopadhyay, A. (Eds.)

2015, XXX, 889 p. 325 illus., Softcover

ISBN: 978-81-322-2249-1