# Table of Contents

Editorial Board vii-viii  

Face Recognition Machine Vision System Using Eigenfaces 1-3  
Sudhanshu Tripathi, Leena Singh and Himakshi Arora

Time Optimization for Traffic Signal Control Using Genetic Algorithm 4-6  
Leena Singh, Sudhanshu Tripathi and Himakshi Arora

The Requirements for Building an E-commerce Infrastructure 7-9  
Izzat M Alsmadi, Ikdam Alhami, and Hisham Alsmadi

Fuzzy Reliability of a Network Using Fuzzy Sum of Disjoint Product Technique 10-12  
R. Sujatha and B. Praba

A. Sambasiva Rao and Raj Kumar

Multiple Input Multiple Output (MIMO) Process Optimization using Fuzzy GA Clustering 16-18  
S. Vijayachitra, A. Tamilarasi and M. Pravinkumar

Performance analysis of ICA algorithms against multiple-sources interference in biomedical systems 19-21  
Sargam D. Parmar and Bhuvan Unhelkar

New Feature Extraction Techniques for Marathi Digit Recognition 22-24  
Navnath S. Nehe and R. S. Holambe

B. Praba, R. Sujatha and S. Srikrishna,

Sequence Similarity Using Gaines Hidden Markov Model for Failure Prediction 30-34  
Murugesan N, Suguna P, Muthumani N and Antony Selvados Thamani

Content Based Medical Image Retrieval by Combining Rotation Invariant Contourlet Features and Fourier Descriptors 35-39  
Arun K. S. and Hema P Menon

Application of Statistical Features in Handwritten Devnagari Character Recognition 40-42  
Sandhya Arora, Debotosh Bhattacharjee, Mita Nasipuri, D. K. Basu and M. Kundu

An Application of Computational Intelligence Technique for Predicting Surface Roughness in End Milling of Inconel-718 43-47  
Abhijit Mahapatra and Shibendu Shekhar Roy

Evaluation of Unified Relationship Matrix based Realistic Mobility Model for MANET 48-50  
Gunasekaran S and Nagarajan N

Face Recognition Based On Two-Dimensional PCA On Wavelet Subband 51-54  
Kishor S Kinage and S. G. Bhirud

Construction Of Frontal Face From Side-View Images Using Face Mosaicing 55-59  
Hiramoy Roy, Debotosh Bhattacharjee, Mita Nasipuri, Dipak Kumar Basu and Mahantapas Kundu

Motion Segmentation From Surveillance Videos Using Varied Number Of Frames 60-65  
Girisha R and Murali S

Fuzzy Classification Of Facial Components For Face Construction 66-70  
Santanu Halder, D. Bhattacharjee, M. Nasipuri, D. K. Basu and M. Kundu

Experiment Measurements For Packet Reception Rate In Wireless Underground Sensor Networks 71-75  
Adel Ali Ahmed and Nosheila Fisal

Clustering Gene Expression Data using a Regulation based Density Clustering 76-78  
Rosy Das, D. K. Bhattacharyya and Jugal K. Kalita

An Intelligent Mining Framework For Building Map Image Database Using Self Organizing Maps 79-81  
Animesh Tripathy and Prashanta Kumar Patra

A Framework To Detect And Analyze Software Vulnerabilities-Development Phase Perspective 82-84
A. Agrawal and R. A. Khan

Atomic Scale Simulation Of Thin Film Growth By Kinetic Monte Carlo Method
Anissa Ali-Messaoud, A. Chikouche A. Estève, G. Landa and M. Djafari Rouhani
85-88

Digital Simulation Of Direct Torque Fuzzy Control Of PMSM Servo System
Jagadish H. Pujar and S. F. Kodad
89-93

A Multiclass Classification Of Cancer Data:Using A Kernel Based Clustering K-NN Support Vector Machine
Tripti Swarnkar and Chinmaya Dash
94-97

A Simulated Annealing Approach To Reporting Cell Planning Problem Of Mobile Location Management
Falguni Mehta and Prashant Swad
98-102

Performance Analysis Of Genetic Algorithm For Solving The Multiple-Choice Multi-Dimensional Knapsack Problem
Khandaker Moinur Rahman and Syed Ishtiaque Ahmed
103-105

Classification Of High-Energized Gabor Responses Using Bayesian PCA For Human Face Recognition
Arindam Kar, Debotosh Bhattacharjee, Mita Nasipuri, Dipak Kumar Basu and Mahantapas Kundu
106-110

A Novel Four Entity Mutual Authentication Technique For 3-G Mobile Communications
Chandan Koner, Pijush Kanti Bhattacharjee, Chandan Tilak Bhunia and Ujjwal Maulik
111-113

Saliency Based Visual Tracking Of Vehicle
Amudha J and K. P Soman
114-116

Selective Tuning Visual Attention Model
Amudha J and K. P Soman
117-119

Comparative Analysis Of Speckle Filtering Techniques
I. Laurence Aroquiaraj K. Thangavel and R. Manavalan
120-123

Script Identification In Indian Document Images Based On Directional Morphological Filters
Mallikarjun Hangarge and B. V. Dhandra
124-126

Improving the Classifiers Performance Using Best Feature Selection Method (VM) and Meta Classifier
M. Srinivas, Supreethi K. P and S. Anitha Kumari
127-129

The Development Of Phrase-Based Transfer Rules For ADJ-Based Machine Translation
T. B. Adji, B. Baharudin, and N. Zamin
130-134

A Biologically Inspired Filter For Image Restoration
Satyadhyan Chickerur and Aswatha Kumar M
135-138

A Novel Approach To Solve Drowsy Driver Problem By Using Eye-Localization Technique Using Chth
Durga P Tripathi and N. P. Rath
139-145

Computer Aided Dynamic Simulation Of Six-Legged Robot
Abhijit Mahapatra and Shibendu Shekhar Roy
146-151

A Neural Network Approach For Color Image Compression In Transform Domain
S. Immanuel Alex Pandian and J. Anitha
152-154

Application Of Automatic Variable Password In Remote User’s Time Variant Entity And Data Authentication
Chandan Koner, Chandan Tilak Bhunia and Ujjwal Maulik
155-158

Copy-Move Forgery Detection Algorithm For Digital Images And A New Accuracy Metric
Tehseen Shahid and Atif Bin Mansoor
159-161

A Fault Tolerant Load Balancing Model For Grid Environment
J. Jayabharathy and A. Ayeshaa Parveen
162-164

Improving Pairing Mechanism In Bluetooth Security
Tarun Kumar
165-169

Performance Improvement Techniques For Dynamic Source Routing Protocol In Mobile Ad Hoc
170-173

iv
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Parallel Machine Scheduling With Hard Deadlines</td>
<td>Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, Mita Nasipuri, Dipak Kumar Basu and Mahantapas Kundu</td>
<td>263-265</td>
</tr>
<tr>
<td>S. Sriram, C. Mala and N. P. Gopalan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adding Edges For A Simple Cycle To A Complete Binary Tree Maximizing Total Shortening Path Length</td>
<td>Kiyoshi Sawada</td>
<td>266-269</td>
</tr>
<tr>
<td>Author Index</td>
<td></td>
<td>270-271</td>
</tr>
</tbody>
</table>
Editorial Board

Editor-in-Chief

Dr. Vinu V Das (Chairman, ACEEE)

Managing Editors

Dr. Nikolaos Antonopoulos (University of Surrey, UK)
Dr. Uyen Trang Nguyen (York University, Canada)
Dr. Sumeet Dua (Louisiana Tech University, USA)

Associate Editors

Dr. Beno Benhabib (University of Toronto, Canada)
Dr. Natarajan Meghanathan (Jackson State University, USA)
Dr. Gylson Thomas (MES College of Engineering, India)
Dr. Hicham Elzabadani (American University in Dubai)
Dr. Shahrokh Valaee (University of Toronto, Canada)

Editors

Dr. Shuvra Das (University of Detroit Mercy, USA)
Dr. Prafulla Kumar Behera (Utkal University, India)
Dr. Amit Banerjee (The Pennsylvania State University, USA)

Advisory Board

Dr. Pawel Hitczenko (Drexel University, USA)
Dr. Lisa Osadciw (Syracuse University, USA)
Dr. Jiguo Yu (Qufu Normal University, China)
Dr. Marc van Dongen (University College Cork, Ireland)
Dr. Hooman Mohseni (Northwestern University, USA)
Dr. Suresh Subramoniam (Prince Sultan University, Saudi Arabia)
Dr. A. Louise Perkins (University of Sothern Mississippi, USA)
Dr. Sanjukta Bhowmick (The Pennsylvania State University, USA)
Dr. Sumanth Yenduri (The University of Southern Mississippi, USA)
Dr. Hamid Bagheri (Sharif University of Technology, Iran)
Dr. Mehran Garmehi (Bojnord University, IRAN)
Dr. Kabekode V. Bhat (The Pennsylvania State University, USA)
Dr. Mongan,William (Drexel University, USA)
Dr. Gordon Reynolds (Dublin Institute of Technology, Ireland)
Dr. Shashi Phoha (The Pennsylvania State University, USA)
Dr. Chilukuri K. Mohan (Syracuse University, USA)
Dr. Debopam Acharya (Georgia Southern University, USA)
Dr. David Hall (Louisiana Tech University, USA)
Dr. Cecilia Chan (University of Hong Kong, Hong Kong)
Dr. Kristian J. Hammond (Northwestern University, USA)
Dr. Long Que (Louisiana Tech University, USA)
Dr. Peter Vadasz (Northern Arizona University, USA)
Dr. Saurabh Chaudhury (IIT Kharagpur, India)
Dr. R.Kumar (SRM University, India)
Dr. Somanath Tripathy( IIITM, Gwalior, India)
Dr. Virendra S Shekhawat (BITS, Pilani)
Dr. K B Raja (University Visvesvaraya College of Engineering, India)
Dr. Rakesh Tripathi (NIT Raipur, India)
Dr. D. Samanta (IIT Kharagpur, India)
Dr. K S Rao (IIT Kharagpur, India)
Dr. Karuensh K Gupta (BITS Pilani, India)
Dr. Amlan Chakrabarti (University of Calcutta, India)
Dr. Manas Ranjan Patra (Berhampur University, India)
Dr. Vijay Chaurasiya (IIIT Allahabad, India)
Dr. Santosh Biswas (IIT Guwahati, India)
Dr. Roy P. Paily (IIT Guwahati, India)
Dr. D K Bhattacharyya (Tezpur University, India)
Dr. Sriparna Saha (Indian Statistical Institute, India)
Dr. Hemanta Kumar Kalita (TCS, India)
Dr. M Kumar (SIRT, Bhopal, India)