2015 Third International Conference on Image Information Processing (ICIIP 2015)

Waknaghat, India 21-24 December 2015



IEEE Catalog Number: CFP1569N-POD ISBN:

978-1-5090-0149-1

Copyright © 2015 by the Institute of Electrical and Electronic Engineers, Inc All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP1569-POD

 ISBN (Print-On-Demand):
 978-1-5090-0149-1

 ISBN (Online):
 978-1-5090-0148-4

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400 Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



Paper's Title & Authors	Page No.
Image Enhancement Using Combined ICA and PCA Based Filtering in HSV Domain Nidhi Chahal, Sakshi Sharma	1
Multimodal Biomedical Image Fusion: Use of log-Gabor and Guided filters with Non-subsampled Contourlet Transform Nikhil Dhengre, Kishor Upla, Ronak Trivedi	6
Prognosis of Epileptic seizures using EEG signal Meenakshi Sood, Sunil Bhooshan	12
A New Hand Gesture Recognition Scheme for Similarity Measurement in a Vision Based Barehanded Approach Kunal Chanda, Washef Ahmed, Soma Mitra	17
Depth Filtering Using Total Variation Based Video Decomposition Saumik Bhattacharya, Venkatesh K Subramanian, Sumana Gupta	23
Energy Aware Diffusion in Wireless Sensor Networks Ashok Kishtwal, Abhishek Gupta	27
Adaptive Pattern Attack Recognition Technique (APART) against EDoS Attacks in Cloud Computing Rohit Thaper, Amandeep Verma	31
Edge Distortion Removal in Depth Map Using Alpha Matting Aarti Ghatkesar, Saumik Bhattacharya, Venkatesh K Subramanian	35
LANDSAT Enhanced Thematic Mapper Plus Image Registration using SIFT Sourabh Paul, Ujwal Durgam, Umesh Pati	40
Remote Capturing of Water Meter Reading Using DSP Processor Santosh Kashid, Sanjay Pardeshi, Sushil Sirsat, Vijaysinh Bonge	45
Emotion Recognition Based on Physiological Signals using Valence-Arousal Model Saikat Basu, Nabakumar Jana, Arnab Bag, Manjunatha Mahadevappa, Jayanta Mukherjee, Somesh Kumar, Rajlakshmi Guha	50
A Database of Printed Jawi Character Image Khairun Saddami, Khairul Munadi, Fitri Arnia	56
An Innovative Method of Text Steganography Shashank Gupta, Rachit Jain	60
Face Recognition for Cattle Shrikant Tiwari, Santosh Tulsi, Sanjay Singh	65
Binarization of Degraded Handwritten Documents based on Morphological Contrast intensification Sekhar Mandal, Sugata Das, Amrit Agarwal, Bhabatosh Chanda	73
Random-Valued Impulse Denoising using Sparse Regularizations Bhabesh Deka, Maitrayee Handique, Sumit Datta	79

A New LSB-S Image Steganography Method Blend with Cryptography for Secret Communication Kamaldeep Joshi, Rajkumar Yadav	86
Hilbert Curve Based Steganographic Scheme for Large Data Hiding Sayantari Ghosh, Saumik Bhattacharya	91
Analysis & Implementation of High Cascaded Integrated Comb for Software Defined Radios Application Hansa Gupta, Rajesh Mehra	97
Formalization Of Digital Forensic Theory By Using Buchi Automaton Sumit Jalan, Pankaj Kumar, Suvrojit Das	102
Predicting Student Placements Using Bayesian Classification Pratiyush Guleria, Manu Sood	109
A DTW and Fourier Descriptor based approach for Indian Sign Language Recognition Pushkar Shukla, Abhisha Garg, Kshitij Sharma, Ankush Mittal	113
Robust Digital Watermarking using Contourlet Transform for Coloured Images Preeti Sharma, Pallvi Chawla	119
Biometric Watermarking using Partial DCT-Walsh Wavelet and SVD H. B. Kekre, Tanuja K. Sarode, Shachi Natu	124
On-line Handwritten Gujarati Character Recognition Using Low Level Stroke Chhaya Gohel, Mukesh M Goswami, Vishal Prajapati	130
Image Registration in Presence of Multiplicative Noise by Particle Swarm Optimization Haradhan Chel, Debashis Nandi, Prabin Kumar Bora	135
Posture Recognition For Safe Driving Rajeev Gupta, Mangal Raj, Anupam Agrawal, Anil Chaudhary	141
Novel method for automatic generation of fundus mask Santhakumar Ramamoorthy, Elagiri Ramalingam Rajkumar, Megha Tandur, Geetha K S, Kumar Rajamani, Girish Haritz	147
Modified Demons Registration for Highly Deformed Medical Images Bandana Mishra, Umesh Pati, Usha Sinha	152
An Adaptive Threshold based FPGA Implementation for Object and Face Detection Sateesh Kumar H C, Sayantam Sarkar, Satish Bhairannawar, Raja KB, Venugopal KR	157
On Block Compressed Sensing far end reconstruction using OFDM Abhishek Kashyap, Ankita Pramanik, Santi Prasad Maity	162
Investigation of Energy Efficient Routing Parameters & Protocols Madan Mohan Agarwal, Mahesh Chandra Govil, Madhavi Sinha	168

A QoS-based service discovery using meta-heuristic optimization in Federated Cloud Vivek Gaur, Praveen Dhyani, Om Prakash	174
Detection of Sudoku Puzzle using Image Processing and Solving by Backtracking, Simulated Annealing and Genetic Algorithms: A Comparative Analysis Snigdha Kamal, Simarpreet Chawla, Nidhi Goel	179
Hierarchical Classification and Grading of Diabetic Macular Edema using Texture Features Shrey Magotra, Aditya Kunwar, Namita Sengar, Partha Mangipudi, Malay Kishore Dutta	185
Optimized Face Recognition Algorithm using Spatial and Transform Domain Techniques Sujatha B M, Suresh Babu, Raja B K, Venugopal K R	190
Second Generation Wavelet Transform based Biometric [Iris] Watermarking for Image Authentication using Gabor Feature Extraction Meenakshi Arya, Payal Goyal	196
Two New Approaches for Image Steganography Using Cryprography Vipul Sharma, Madhu Sudan	202
Secure E-Governance: From Observation to Policy Formulation Saibal Sarkar, Suvrojit Das	208
FKP based personal authentication using SIFT features extracted from PIP joint Gauarv Jaswal, Ravinder Nath, Amit Kaul	214
Cluster-based Coordinated Checkpointing Protocol in Wireless Ad-hoc Networks Jawahar Thakur, Arvind Kalia, Lalit Awasthi	220
A vision based Human-Elephant collision detection system Pushkar Shukla, Isha Dua, Ankush Mittal	225
Extreme Learning Machine based Novelty Detection for Incremental Semi-Supervised Learning Husam Al-Behadili, Arne Grumpe, Christian Dopp, Christian Wöhler	230
Automated Ball Tracking in Tennis Videos Tayeba Qazi, Prerana Mukherjee, Siddharth Srivastava, Brejesh Lall, Nathi Ram	236
Detection of Forest Fires using Machine Learning Technique: A Perspective Aditi Kansal, Yashwant Singh, Nagesh Kumar, Vandana Mohindru	241
Bharatnatyam Adavu Recognition From Depth Data Geetanjali Kale, Varsha Hemant Patil	246
Still Image processing Techniques for Intelligent Traffic Monitoring Dinkar Sitaram, Nirupama Padmanabha, Supriya S, Shibani S	252
Power Aware Resource Virtual Machine Allocation Policy for Cloud Infrastructure Ravi Jha, Punit Gupta	256
Highly Optimized Selected Mapping Based Peak to Average Power Ratio Reduction OFDM System using Different Modulation Schemes	261

Prabal Gupta, Rajiv Singh

An improved DCT-based Phase Correlation Method for Image Mosaicing Achala Pandey, Umesh Pati	265
DC Scanner: Detecting phishing attack Binay Kumar, Pankaj Kumar, Ankit Mundra, Shikha Kabra	271
A Hybrid Approach For Feature Selection Sadhana Tiwari, Birmohan Singh	277
A Comparative study of Modified Crossover Operators Anju Bala, Aman Sharma	281
IoT based Power Efficient System Design using Automation for Classrooms Anisha Gupta, Punit Gupta, Jasmeet Chhabra	285
A study on segmentation of Renal Scintigraphy using Level Sets Algorithm Shiva Amruthavakkula, S Siva Sankar Sai, Kumar Rajamani, Siva Subramaniyan Viswanathan	290
A Survey on Issues of concern in Software Defined Networks Nishtha Kapoor, Manu Sood	295
Evaluation of Image Forensic Cues for Fusion Mandeep Kaur, Savita Gupta	301
Dynamic Background Subtraction using Local Binary Pattern and Histogram of Oriented Gradients Deepak Panda, Sukadev Meher	306
A Framework for Hand Gesture Recognition based on fusion of Flex, Contact and Accelerometer Sensor Vishal Pathak, Sushant Mongia, Gaurav Chitranshi	312
A Dynamic Segment Based Statistical Derived PNN Model for Noise Robust Speech Recognition Kapil Juneja	320
Neuronal Feature Extraction Through Autonomous Segmentation using Density Conscious Artificial Immune Algorithm Vishwambhar Pathak, Praveen Dhyani	326
Capturing the Spied Image-Video Data Using a Flexi-Controlled Spy-Robot Tushar Maheshwari, Upendra Kumar, Chaitanya Nagpal, Chandrakant Ojha, Vinay Kumar Mittal	330
Power Aware Resource allocation Policy for Hybrid Cloud Ravi Jha, Punit Gupta	336
Autonomous Visual Tracking and Landing of a Quadrotor on a Moving Platform Juhi Ajmera, Siddharthan Rajasekaran, Ramaravind Kommiya Mothilal, Gautham Vasan, Naresh Balaji, Velupillai Sankaranarayanan	342
Proposed Algorithms for Effective Real Time Stream Analysis in Big Data	348

Nishant Agnihotri, Aman Sharma

Wireless Body Control Module Garv Modwel, Nitin Rakesh, Krishn Mishra	353
Image Content Modeling and Retrieval Using Sparse Representation Raju Ranjan, Sumana Gupta, Venkatesh K Subramanian	358
Image processing for mango ripening stage detection: RGB and HSV method Rahul Pralhad Salunkhe, Aniket Patil	362
An Image-Compression Decomposition Analysis of Sub-Bands using Threshold Implementation Sukant Vats, Geetanjali Rathee	366
Lane Departure Warning System based on Hough Transform and Euclidean distance P. Bhujbal, Sandipan Narote	370
Double Handed Indian Sign Language to Speech and Text Kusumika Krori Dutta, Satheesh Kumar Raju Konduru, Anil Kumar, B Sunny Arokia Swamy	374
Indian Sign Language gesture classification as Single or Double Handed Gestures Akanksha Singh, Saloni Arora, Pushkar Shukla, Ankush Mittal	378
Metric Based Efficiency Analysis of Educational ERP System Usability -Using Fuzzy Model Anil Kumar, Reza Tadayoni, Lene Sørensen	382
Development of a Kinect-Based Physical Rehabilitation System Param Uttarwar, Deepak Mishra	387
Image Fusion on digital images using Laplacian Pyramid with DWT Harmandeep Kaur, Jyoti Rani	393
Real-time Security Solution for Automatic Detection and Tracking of Intrusion Debesh Bar, Dhruv Pande, Manveer Sandhu, Vikas Upadhyaya	399
LSB Modification based Audio Steganography using Trusted Third Party Key Indexing Method Vipul Sharma, Ravinder Thakur	403
Evaluation of Cost Function for the Oct Tree Segmentation of Video Cube Rupesh Kumar, Sumana Gupta, Venkatesh K Subramanian	407
Texture Modeling And Labeling Using Divide And Conquer Raju Ranjan, Sumana Gupta, Venkatesh K Subramanian	41
Hyper Spectral Images Restoration approach using LRMR and LDA Surender Jangra, Swati Goel, Arvind Selwal	415
Face Recognition Accuracy Enhancement in Consumer Devices Tanushree Gupta, Prabindh Sundareson	419
Comparative Study of WSN Protocols (LEACH, PEGASIS and TEEN)	422

Abdul Khan, Nitin Rakesh, Abhay Bansal, Dev Kumar Chaudhary

Algorithm for De-noising of color Images based on Median Filter Ashwani Kumar Yadav, Ratandeep Roy, Rajkumar Yadav, Cheruku. Kumar, Praveen Archek	428
A Web-Based Bilingual Natural Language Interface to Database Munisha Choudhary, Mohit Dua, Zorawar S Virk	433
Optimizing Luminance and chrominance filtered channels by binary genetic algorithm to generate color halftone images Pritha Das, Kanai Paul, Arpitam Chatterjee	439
Convolution based Face Recognition using DWT and Feature Vector Compression Ganapathi V Sagar, Savita Y Barker, K B Raja, K Suresh Babu, Venugopal K R	444
Push Notification as a Business Enhancement Technique for E-commerce Arvind Kumar, Suchi Johari	450
A FPGA based System for Measuring Vector Cosine Angle Distance between Three Color Channels of RGB Image Santanu Halder, Abul Hasnat, Debotosh Bhattacharjee, Mita Nasipuri	455
WSF-RBF Based Mining Model to Identify Eye-Glasses Worn People from Face-Images Pool Kapil Juneja	462
Novel generalized workflow for cell counting Madhavi Rao, Kumar Rajamani, Thennarsu Palanisamy, Kaushal Narayan, Rajeshkumar Chinnadorai	468
Cut Scene Change Detection Using Spatio Temporal Video Frame Rupesh Kumar, Sumana Gupta, Venkatesh K Subramanian	474
Multi-Featured and Conditional Probability Analysis Model for Driving-Disability Identification Kapil Juneja	480
A Lossless Data Hiding Method Based On Inverted LSB Technique Vaishali Sharma, Rupali Bhardwaj	486
An Efficient PAPR Reduction Scheme for OFDM System using Peak Windowing and Clipping Rajiv Singh, Maniraguha Fidele	491
Distributed and Time Efficient Ranking System Ashish Rawat, Suman Saha, Satya Prakash Ghrera	496
Gender Classification for Digital Signage Solutions using Facial Images Vinitha Selvaraj	502
An Approach Toward the Optimization of Witness Based Node Clone Attack Balmukund Mishra, Yashwant Singh	506
A real-time ball trajectory follower using Robot Operating System Himanshi Yadav, Siddharth Srivastava, Prerana Mukherjee, Brejesh Lall	511

A New Next Best View Method For 3D Modeling of Unknown Objects Mahesh Kumar Singh, Venkatesh K Subramanian, Ashish Dutta	516
A New Method for Calibration of Range Sensor and Terrain Classification Mahesh Kumar Singh, Venkatesh K Subramanian, Ashish Dutta	520
Speech Controlled Robotics using Artificial Neural Network Neha Joshi, Anil Chaudhary, Pavan Chakraborty, Rahul Kala	526
A new and efficient buyer-seller digital watermarking protocol using Identity based technique for copyright protection Ashwani Kumar, Satya Prakash Ghrera, Vipin Tyagi	531
Efficient Nystrom method for Low Rank Approximation and Error Analysis Lokendra Singh Patel, Suman Saha, Satya Prakash Ghrera	536
An Optical Character Recognition Machine Printed Oriya Script Aditya Raj	543
Article Recommendation System Based on Keyword using Map-Reduce Sanjana Singh, Nishtha Ahuja	548
Application of Sparse Coding in Crater Classification Savita R Gandhi, Suchit Purohit	No Show
Scale-invariant feature transform based Lesion Detection on CT Lung Images Gurpreet Kaur, Navneet Kaur	No Show
Efficient Feature Extraction using DCT for Gender Classification Anjali Goel,Virendra P. Vishwakarma	No Show
Statistical Speech Segregation Using the Developed k-means of Audio Feature Hasan Almgotir Kadhim, Wai Lok Woo, Satnam Dlay	No Show
Time and Frequency Analysis of EEG Signals to Detect Sleep Disorder Breathing (SDB) Mohd Maroof Siddiqui, Geetika Srivastava, Syed Saeed	No Show
Hardware Co-Simulation of an AES-128 bit based Image Encryption and Decryption Schemes with Xilinx System Generator Niharika Agrawal, Kusum Lata	No Show
A new Image Processing Technique for the Detection and Staging of Lung Cancer in CT scan using Tumor Node Metastasis(TNM) Staging System Sasidhar Bola, Ramesh Babu, Ravishankar M, Geetha G	No Show
Content Delivery Networks- Insights and Recent Advancement Darothi Sarkar, Nitin Rakesh, Krishn Mishra	No Show
Novel Approach for Task Mapping to Virtual Machine Neeru Chauhan, Nitin Rakesh, Rakesh Matam	No Show

Coding Strategies to Avoid Data Loss in Cloud Storage Systems No Show Swati Singal, Nitin Rakesh, Rakesh Matam A Comparison Study on Vision Based Manipulation No Show S Kansal, Sudipto Mukherjee Reconsidering the Cloud approach towards VANET Communication No Show Arjun Arora, Nitin Rakesh, Krishn Mishra Search Engine Optimization: Success Factors No Show Swati Gupta, Nitin Rakesh, Abha Thakral, Dev Chaudhary An Alternative Approach to Detect the Presence of Schistosoma Haematobium Infection in Affected Regions of Benue State-Nigeria No Show Sarvraj Ranhotra