# Sequence of papers

| | Plenary |
|---|---|
| P1 | Perception and recognition of faces - human capacities of possible relevance for artificial systems<br>*Ken Nakayama*, Harvard University, USA |
| P2 | Document Image Understanding and Digital Libraries<br>*Henry S. Baird*, Lehigh University, USA |
| P3 | Real Time, Real World, Distributed Vision<br>*Peter J. Burt*, Sarnoff Corporation, USA |
| P4 | The Space of Human Shapes<br>*Brian Curless*, University of Washington, USA |
| P5 | <br>*Partha Pratim Das*, Interra System, India |

| | Oral Session: Computer Vision |
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| CV1 | Geometric Structure Computation from Conics<br>*Pawan Kumar Mudigonda, C. V. Jawahar and P. J. Narayanan* |
| CV2 | A Framework for Activity Recognition and Detection of Unusual Activities<br>*Dhruv Mahajan, Nipun Kwatra, Sumit Jain, Prem Kalra and Subhashis Banerjee* |
| CV3 | Activity Representation Using 3D Shape Models<br>*Amit K. Roy-Chowdhury, Rama Chellappa and Umut Akdemir* |
| CV4 | High-Resolution Multiscale Panoramic Mosaics from Pan-Tilt-Zoom Cameras<br>*Sudipta N. Sinha, Marc Pollefeys and Seon Joo Kim* |
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| | Poster Session: Computer Vision – I |
| CV1.1 | Spatio-Temporal Grouping Models and Prominence Models in Perceptual Organization for Semantic Interpretation of Video Shot<br>*Gaurav Harit and Santanu Chaudhury* |
| CV1.2 | Active 3-D Object Recognition Using Appearance-Based Aspect Graphs<br>*Sumantra Dutta Roy and Nirupama Kulkarni* |
| CV1.3 | A Robust and Computationally Efficient Motion Detection Algorithm Based on Σ-Δ Background Estimation<br>*A . Manzanera and J. C. Richefeu* |
| CV1.4 | Handling Occlusions in Monocular Surveillance Systems<br>*Prithwijit Guha, Nisarg Vyas, Amitabha Mukerjee and K. S. Venkatesh* |
| CV1.5 | Estimating 3D Hand Position and Orientation Using Stereo<br>*Afshin Sepehri, Yaser Yacoob and Larry S. Davis* |
| CV1.6 | Modeling Signs Using Functional Data Analysis<br>*Sunita Nayak, Sudeep Sarkar and Kuntal Sengupta* |
| CV1.7 | IRIS Recognition Method Using Random Texture Analysis<br>*Ali Ajdari Rad, Reza Safabakhsh and Navid Qaragozlou* |

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| CV1.8 | Mathematical Morphology Based Corner Detection Scheme: A Non-Parametric approach<br>*R. Dinesh and D. S. Guru* |
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| | Poster Session: Computer Graphics - I |
| CG1.1 | A proposed Glass-Painting Filter<br>*Priti Sehgal and P. S. Grover* |
| CG1.2 | Encoding Quadrilateral Meshes in 2.40 bits per Vertex<br>*Pawel Kosicki and Asish Mukhopadhyay* |
| CG1.3 | Stylistic Reuse of View-Dependent Animations<br>*Parag Chaudhuri, Ashwani Jindal, Prem Kalra and Subhashis Banerjee* |
| CG1.4 | MoCap Based New Walk and Climb Synthesis<br>*Shrinath Shanbhag and Sharat Chandran* |
| CG1.5 | Animation of Lip Motions and Facial Expressions using 3D Homeomorphic Models<br>*Erdem Akagunduz and Ugur Halici* |
| CG1.6 | Depth+Texture Representation for Image Based Rendering<br>*P. J. Narayanan, Sashi Kumar P and Sireesh Reddy K* |
| CG1.7 | The Fast Multipole Method for Global Illumination<br>*Alap Karapurkar, Nitin Goel and Sharat Chandran* |
| CG1.8 | Markerless Motion Capture from Monocular Videos<br>*Vishal Mamania, Appu Shaji and Sharat Chandran* |
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| | Oral Session: Image Processing |
| IP1 | Use of Linear Diffusion in Depth Estimation Based on Defocus Cue<br>*Vinay P. Namboodiri and Subhasis Chaudhuri* |
| IP2 | PCA Based Generalized Interpolation for Image Super-Resolution<br>*C. V. Jiji and Subhasis Chaudhuri* |
| IP3 | Design of A Robust Spread Spectrum Image Watermarking Scheme<br>Santi P. Maity, Malay K. Kundu and Tirtha S. Das |
| IP4 | Multi Example Based Image Retrieval: An ICA Based Approach<br>*Jayanta Basak, Koustav Bhattacharya and Santanu Chaudhury* |
| IP5 | Learning Layered Pictorial Structures from Video<br>*M. Pawan Kumar, P. H. S. Torr and A. Zisserman* |
| IP6 | Robust Segmentation of Unconstrained Online Handwritten Documents<br>*Anoop M. Namboodiri and Anil K. Jain* |
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| | Poster Session: Computer Vision - II |
| CV2.1 | Fitting Coupled Geometric Objects for Metric Vision<br>*Paul O'Leary, Matthew Harker and Paul Zsombor-Murray* |

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| CV2.2 | Efficient Identification Based on Human Iris Patterns<br>*A. Chitra and R. Bremananth* |
| CV2.3 | Multiple Model Based Point Targets Tracking Using Particle Filtering in InfraRed Image Sequence<br>*Mukesh A. Zaveri, S. N. Merchant and Uday B. Desai* |
| CV2.4 | Study on Ultrasound Kidney Images Using Principal Component Analysis: A Preliminary Result.<br>*C. Karthikeyini, K. Bommanna Raja and M. Madheswaran* |
| CV2.5 | Bidimensional Motion Charge Map for Stereovision Disparity Analysis<br>*Jos´e M. L´opez-Valles and Miguel A. Fern´andez* |
| CV2.6 | Estimation of Depth Information from a Single View in an Image<br>*S Murali and N Avinash* |
| CV2.7 | Object Identification and Colour Recognition for Human Blind<br>*R. Nagarajan, G. Sainarayanan, Sazali Yaacob and Rosalyn R Porle* |
| CV2.8 | Partial Shape Retrieval by M-tree and a Bayesian Approach<br>*Said Mahmoudi and Mohamed Daoudi* |
| CV2.9 | Statistical Object Recognition for Multi-Object Scenes with Heterogeneous Background<br>*Marcin Grzegorzek, Kailash N. Pasumarthy, Michael Reinhold and Heinrich Niemann* |
| CV2.10 | Moving Object Segmentation in Video Using Stationary Wavelet Transform<br>*Debashis Sen, Ajit Singh Sandhu and Harun Prasad Paramasivam* |
| CV2.11 | Object Discrimination Using Stereo Vision for Blind through Stereo Sonification<br>*G. Balakrishnan, G. Sainarayanan, R. Nagarajan and Sazali Yaacob* |
| CV2.12 | Probabilistic Measures for Motion Segmentation<br>*Venu Madhav Govindu* |
| CV2.13 | Recognition of Partially Occluded Objects Using B-tree Index Structure: An Efficient and Robust Approach<br>*R. Dinesh and D.S. Guru* |
| CV2.14 | Hough Transform for Region Extraction in Color Images<br>*Sarif Kumar Naik and C. A. Murthy* |
| CV2.15 | 3D Reconstruction of Retinal Blood Vessels from Two Views<br>*Martinez-Perez M. E. and Espinosa-Romero A.* |
| CV2.16 | A New Morphological 3D Shape Decomposition: Grayscale Interframe Interpolation Method<br>*D. N. Vizireanu and R. M. Udrea* |
| CV2.17 | EMoTracker: Eyes and Mouth Tracker Based on Energy Minimization Criterion<br>*Shahrel A Suandi, Shuichi Enokida and Toshiaki Ejima* |
| CV2.18 | On Learning Shapes from Shades<br>*Subhajit Sanyal, Mayank Bansal, Subhashis Banerjee and Prem Kalra* |
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| | Oral Session: Computer Graphics |
| CG1 | View Synthesis of Scenes with Man-Made Objects Using Uncalibrated Cameras<br>*Geetika Sharma, Santanu Chaudhury and J. B. Srivastava* |
| CG2 | Multi-Dimensional Transfer Function Design for Scientific Visualization |

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| | *Sangmin Park and Chandrajit Bajaj* |
| CG3 | Design of A Geometry Streaming System<br>*Soumyajit Deb and P. J. Narayanan* |
| CG4 | Efficient Light Field Based Camera Walk<br>*Aviral Pandey, Biswarup Choudhury and Sharat Chandran* |
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| | Poster Session: Image Processing - I |
| IP1.1 | Content Based Image Retrieval in Presence of Foreground Disturbances<br>*Rajashekhar and Subhasis Chaudhuri* |
| IP1.2 | Skew Estimation in Digitised Documents: A novel Approach<br>*D. S. Guru, P. Punitha and S. Mahesh* |
| IP1.3 | False Color Suppression in Demosaiced Color Images<br>*Jayanta Mukherje, Manfred K. Lan and S.K.Mitra* |
| IP1.4 | Algorithms and Hardware Implementation of Real Time Automatic Gain Control Feature for Thermal Imager<br>*Himanshu Singh, Ajay Kumar and S. S. Negi* |
| IP1.5 | Content Based Retrieval of Emotions in Face Images<br>*J Nileema, Priti Chandra, C. Bhagvati, Arun K Pujari and B L Deekshatulu* |
| IP1.6 | Multillevel Approach for Color Image Segmentation<br>*Kanchan Deshmukh, Abhijeet Nandedkar, Yeshwant Joshi and Ganesh Shinde* |
| IP1.7 | Diagnostic Analysis Using Textural Features of the Lachrymal Fluid Crystals Images.<br>*N.Yu. Ilyasova, A.V. Kupriyanov, A.M. Malapheev and A.G. Khramov* |
| IP1.8 | Contrast Enhancement of Electron Magnetic Resonance Images Using Linear and Non Linear Unsharp Masking Techniques<br>*P. Alli, Murali C. Krishna and R. Murugesan* |
| IP1.9 | Evaluation of Algebraic Iterative Algorithms for Reconstruction of Electron Magnetic Resonance Images<br>*S. Sivakumar, Murali C. Krishna and R. Murugesan* |
| IP1.10 | A New Algorithm for Image Reconstruction for Positron Emission Tomography<br>*Partha P. Mondal and K. Rajan* |
| IP1.11 | Wavelet Packet Based Digital Image Watermarking<br>*A. Adhipathi Reddy and B. N. Chatterji* |
| IP1.12 | Unsupervised Segmentation of Texture Images Using A Combination of Gabor and Wavelet Features<br>*Shivani G. Rao, Manika Puri and Sukhendu Das* |
| IP1.13 | Watermarking Scheme for Blind Quality Assessment in Multimedia Mobile Communication Services<br>*Santi P. Maity, Malay K. Kundu and Prasanta K. Nandi* |
| IP1.14 | Facial Model Improvement Using 3D Texture Mapping Feedback<br>*Yongjie Liu, Anup Basu and Jong-Seong Kim* |
| IP1.15 | Region of Interest Based Coding of 2-D and 3-D Magnetic Resonance Images |

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| | *R. Srikanth and A. G. Ramakrishnan* |
| IP1.16 | Fractal Based Image Segmentation<br>*Tushar Londhe, Asim Banerjee and Suman K. Mitra* |
| IP1.17 | Content Based Image Retrieval with Multiresolution Salient Points<br>*Minakshi Banerjee and Malay. K. Kundu* |
| IP1.18 | Image Retrieval Using Relevance Feedback Based on Mann-Whitney Test<br>*Sanjoy K. Saha, Amit K. Das and Bhabatosh Chanda* |
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| | Poster Session: Image Processing - II |
| IP2.1 | A Very Efficient Table Detection System from Document Images<br>*S. Mandal, S. P. Chowdhury, A. K. Das and Bhabatosh Chanda* |
| IP2.2 | Similarity Retrieval of Symbolic Images with Multiple Instances of Iconic Objects: A Novel Approach<br>*P. Punitha and D. S. Guru* |
| IP2.3 | Recognition of Unconstrained Malayalam Handwritten Numeral<br>*U. Pal, S. Kundu, Y. Ali, H. Islam and N. Tripathy* |
| IP2.4 | Video Summarization: A Machine Learning Based Approach<br>*Koustav Bhattacharya, Santanu Chaudhury and Jayanta Basak* |
| IP2.5 | A Color-texture Histogram from the HSV Color Space for Video Shot Detection.<br>*A. Vadivel, M. Mohan, Shamik Sural and A. K. Majumdar* |
| IP2.6 | Some New Similarity Measures for Histograms<br>*Dietrich Van der Weken, Mike Nachtegael and Etienne Kerre* |
| IP2.7 | Improved Cut-Based Foreground Identification<br>*Sharat Chandran, Satwik Hebbar, Vishal Mamania and Abhineet Sawa* |
| IP2.8 | A Perceptual No-Reference Blockiness Metric for JPEG Images<br>*R. Venkatesh Babu, Ajit S. Bopardikar and Andrew Perkis* |
| IP2.9 | Face Recognition Using Legendre Moments<br>*S. Annadurai and A. Saradha* |
| IP2.10 | Recognition of Non-symmetric Faces Using Princlipal Component Analysis<br>*N. Krishnan, G. Raja Jothi and G. Lakhs Aaron* |
| IP2.11 | G-Images: Towards Multilevel Unsupervised Image Segmentation<br>*Harbir Singh and Reyer Zwiggelaar* |
| IP2.12 | Cursive Word Recognition Using a Novel Feature Extraction Method and a Neural Network<br>*José Ruiz-Pinales and René Jaime-Rivas* |
| IP2.13 | Lung Disease Detection Using Frequency Spectrum Analysis<br>*Ching Ming Jimmy Wang, Mamatha Rudrapatna and Arcot Sowmya* |
| IP2.14 | A Comparative Study on Discrete Orthonormal Chebyshev Moments and Legendre Moments for Representation of Printed Characters<br>*Sarat Saharia, Prabin K. Bora and Dilip K. Saikia* |
| IP2.15 | Emotion Recognition from Facial Expressions: A Target Oriented Approach Using Neural Network |

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| | *Sreevatsan. A N, Sathish Kumar K G, Rakeshsharma S and Mohd. Mansoor Roomi* |
| IP2.16 | Local Correlation-based Fingerprint Matching<br>*Karthik Nandakumar and Anil K. Jain* |
| IP2.17 | CODE: An Adaptive Algorithm for Detecting Corners and Directions of Incident Edges<br>*Partha Bhowmick and Bhargab B. Bhattacharya* |
| IP2.18 | Transcoding of Document Images for Mobile Devices<br>*Tabassum Yasmin, Santanu Chaudhury and Richa Jain* |
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| | Oral Session: Image Segmentation |
| IS1 | Information Content Driven Unsupervised Top-Down Image Segmentation<br>*Emanuel Diamant* |
| IS2 | An Unsupervised Boosting Learning Algorithm for Finite Mixture Model-based Image Segmentation<br>*Yu lin-Sen and Zhang Tian-Wen* |
| IS3 | A Novel Merging Method in Watershed Segmentation<br>*Maria Frucci* |
| IS4 | Quantitative Comparison of Automatic ICV Segmentation Methods Using 3T MR Images<br>*Suja S. and Rakesh Mullick* |
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| | Poster Session: Image Processing - III |
| IP3.1 | Sports Video Characterization Using Scene Dynamics<br>*R. S. Jadon, Santanu Chaudhury and K. K. Biswas* |
| IP3.2 | Line Segmentation and Analysis with Special Interest to the Duct of a Line<br>*Carola Schonlieb and Kung Chieh Wang* |
| IP3.3 | CONFERM: Connectivity Features with Randomized Masks and Their Applications to Image Indexing<br>*Arindam Biswas, Partha Bhowmick and Bhargab B. Bhattacharya* |
| IP3.4 | A Modified BTC Using Quincunx Subsampling and Pattern Fitting for Very Low bpp<br>*Bibhas Chandra Dhara and Bhabatosh Chanda* |
| IP3.5 | Multi Biometric System for Verification with Minimum Training Data<br>*Mayank Vatsa, Richa Singh and P. Gupta* |
| IP3.6 | Bitplane Based Area Morphology for CBIR<br>*K. Kiran Kumar, Chakravarthy Bhagvati, A. K. Pujari and B. L. Deekshatulu* |
| IP3.7 | A System for Joining and Recognition of Broken Bangla Numerals for Indian Postal Automation<br>*K. Roy, U. Pal and B. B. Chaudhuri* |
| IP3.8 | Recognition of Modification-based Scripts Using Direction Tensors<br>*Lalith Premaratne, Yaregal Assabie and Josef Bigun* |
| IP3.9 | Correcting Colours for Aided Recomposition of Fragments<br>*G. Carlomagno, F. Renna, N. Ancona, N. Mosca, G. Attolico and A. Distante* |
| IP3.10 | A Robust Nonparametric Estimation Framework for Implicit Image Models |

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| | *Himanshu Arora, Maneesh Singh and Narendra Ahuja* |
| IP3.11 | Robust Fingerprint Classification Using An Eigen Block Directional Approach<br>*P Madhusoodhanan and Sumantra Dutta Roy* |
| IP3.12 | Minutiae Verification in Fingerprint Images Using Steerable Wedge Filters<br>*Sharat Chikkerur, Venu Govindaraju, Sharath Pankanti and Ruud Bolle* |
| IP3.13 | Recognition of Binary Image Represented by A String of Numbers<br>*Kallol Bhattacharya, Krishnendu Goswami and Dipankar Biswas* |
| IP3.14 | Searching in Document Images<br>*C. V. Jawahar, Million Meshesha and A. Balasubramanian* |
| IP3.15 | A Study on the Application of Color Transfer Technique for Video Compression<br>*K. Madhu Sudhana Rao and Suman K. Mitra* |
| IP3.16 | Hidden Markov Model Based Structuring of Cricket Video Sequences Using Motion and Color Features<br>*M. H. Kolekar and S. Sengupta* |
| IP3.17 | Key Video Object Plane Selection by MPEG-7 Visual Shape Descriptor for Summarization and Recognition of Hand Gestures<br>*M. K. Bhuyan, D. Ghosh and P. K. Bora* |
| IP3.18 | An Architecture for Real Time Face Recognition Using WMPCA<br>*A. Pavan Kumar, V. Kamakoti and Sukhendu Das* |
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| | Oral Session: Biometric and Related Application |
| BR1 | Fingerprint Classification Using Orientation Field Flow Curves<br>*Sarat C. Dass and Anil K. Jain* |
| BR2 | Multi-Cue Exemplar-Based Nonparametric Model for Gesture Recognition<br>*Vinay D. Shet, V. Shiv Naga Prasad, Ahmed Elgammal, Yaser Yacoob and Larry S. Davis* |
| BR3 | Towards A Robust and Real-time Face Detection and Tracking Framework.<br>*Peihua Li and Kai Xie* |
| BR4 | Robust Face Recognition by Fusion<br>*K. Srinivasa Rao, Lilesh S. Ghadi, Y. Anoop Kumar and A. N. Rajagopalan* |
| BR5 | Dynamic Hand Gesture Recognition Using Predictive Eigen Tracker<br>*Kaustubh S. Patwardhan and Sumantra Dutta Roy* |
| BR6 | Fast and Robust Projective Matching for Fingerprints Using Geometric Hashing<br>*Rintu Boro and Sumantra Dutta Roy* |

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| | **Tutorial** |
| T1 | Detection and Tracking for Surveillance<br>*Larry S. Davis,* University of Maryland, USA |

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| T2 | Trainable Visual Models for Object Class Recognition<br>*Andrew Zisserman,* University of Oxford, UK |
| T3 | Image Registration with Applications to Medical Imaging<br>*Baba C. Vemuri,* University of Maryland, USA |