

Schedule At A Glance

(Accepted Regular Papers: 15 minutes oral presentation + 5 minutes discussion)

Tuesday	
08:30	Welcome Desk/Registration
10:30	Official Opening <i>Room: Grande salle de réception</i>
10:45-11:45	Tutorial: <i>Ashish Khare</i> <i>Room: Grande salle de réception</i>
11:45-13:15	Lunch (<i>Room: Salon de réception 3</i>)
13:15-15:15	SS1: Defuzzification: When discrete geometry meets fuzzy geometry <i>Room: Salle de séminaire 2</i> OP1: Action and Gesture Analysis <i>Room: Grande salle de réception</i>
15:15-15:45	Break (<i>Room: Salon de réception 3</i>)
15:45-17:45	OP2: Video Analysis and Object Tracking <i>Room: Grande salle de réception</i> OP3: Image Segmentation <i>Room: Salle de séminaire 2</i>
18:00-21:00	Reception & Visit of the City
Wednesday	
08:30	Welcome Desk/Registration
09:00-10:00	Plenary Talk: <i>Alex C. Kot</i> <i>Room: Grande salle de réception</i>
10:00-10:30	Break (<i>Room: Salon de réception 3</i>)
10:30-12:30	OP4: Medical Image Segmentation <i>Room: Grande salle de réception</i> OP5: Shape and Object Recognition <i>Room: Salle de séminaire 2</i>
12:30-14:00	Lunch (<i>Room: Salon de réception 3</i>)
14:00-16:00	SS2: Cultural Heritage and Image Processing Plenary talk: <i>Robert Erdmann</i> <i>Room: Grande salle de réception</i> OP6: Color Description and Texture Analysis <i>Room: Salle de séminaire 2</i>
16:00-16:30	Break (<i>Room : Salon de réception 3</i>)
16:30-18:30	OP7: Human and Face Recognition <i>Room: Salle de séminaire 2</i> OP8: Medical Image Analysis <i>Room: Salle de séminaire 1</i>
Thursday	
08:30	Welcome Desk/Registration
09:00-10:00	Plenary Talk: <i>Odemir M. Bruno</i> <i>Room: Grande salle de réception</i>
10:00-10:30	Break (<i>Room: Salon de réception 3</i>)
10:30-12:30	SS3: Medical Image Analysis, Security and Communication I <i>Room: Grande salle de réception</i> OP9: Video Description <i>Room: Salle de séminaire 2</i> OP10: Image Registration and 3D Analysis <i>Room: Salle de séminaire 1</i>
12:30-14:00	Lunch (<i>Room : Salon de réception 3</i>)
14:00-16:00	SS4: Medical Image Analysis, Security and Communication II <i>Room: Grande salle de réception 2</i> OP11: Image Reconstruction and Video Enhancement <i>Room: Salle de séminaire 2</i> OP12: Image Compression and Coding <i>Room: Salle de séminaire 1</i>
17:00-22:00	Social Event
Friday	
08:30	Welcome Desk/Registration
09:00-10:00	Plenary Talk: <i>Jean-Christophe Olivo-Marin</i> <i>Room: Grande salle de réception</i>
10:00-10:30	Break (<i>Room : Salon de réception 3</i>)
10:30-12:30	SS5: Perceptually Driven Visual Information Analysis <i>Room: Salle de séminaire 2</i> OP13: Image Formation and Retrieval <i>Room: Grande salle de réception</i> OP14: Character and Object Recognition <i>Room: Salle de séminaire 1</i>
12:30-14:00	Lunch (<i>Room : Salon de réception 3</i>)

Detailed Program

Tuesday, November 10th, 2015

Tutorial: *Solutions for Development of an Intelligent Video Surveillance System*
Ashish Khare, Department of Electronics & Computer Science, University of Allahabad, Allahabad, INDIA

Chair: Louahdi Khoudour, CEREMA

Special Session 1: Defuzzification: When discrete geometry meets fuzzy geometry

Session Chair: Adélaïde Albouy, Manuel Grand-Brochier, Antoine Vacavant

P68) Smoothed Shock Filtered Defuzzification with Zernike Moments for Liver Tumor Extraction in MR Images

Antoine Vacavant, Abder-Rahman Ali, Manuel Grand-Brochier, Adélaïde Albouy-Kissi, Jean-Yves Boire, Agaïcha Alfidja, Pascal Chabrot

P190) Coverage Segmentation of 3D Thin Structures

Kristina Lidayova, Joakim Lindblad, Hans Frimmel, Chunliang Wang, Örjan Smedby

P192) High-resolution reconstruction by feature distance minimization from multiple views of an object

Joakim Lindblad, Nataša Sladoje, Amit Suveer, Anca Dragomir, Ida-Maria Sintorn

P166) Object-Oriented SVM Classifier for ALSAT-2A High Spatial Resolution Imagery: A Case Study of Algiers Urban Area

Ryad Malik, Radja Kheddami, Aïchouche Belhadj Aïssa

OP1: Action and Gesture Analysis

Session Chair: Amine Nait-Ali, University of Paris-Est Créteil (UPEC)

P20) Credal Human Activity Recognition Based-HMM by Combining Hierarchical and Temporal Reasoning

Arnaud Ahouandjinou, Cina Motamed, Eugène Ezin, Antonio Pinti

P209) Human Posture Recognition by Combining Silhouette and Infrared Cast Shadows

Rafik Gouïaa, Jean Meunier

P281) Super-resolution of facial images in forensics scenarios

João Satiro, Kamal Nasrollahi, Paulo Correia, Thomas Moeslund

P252) 3D real-time human action recognition using a spline interpolation approach

Enjie Ghorbel, Rémi Bouteau, Jacques Boonaert, Xavier Savatier, Stéphane Le Coeuche

P206) Deep Learning based Super-Resolution for Improved Action Recognition

Kamal Nasrollahi, Sergio Escalera, Pejman Rasti, Gholamreza Anbarjafari, Xavier Solé, Hugo Escalante, Thomas Moeslund

P210) Human posture classification based on 3D body shape recovered using silhouette and infrared cast shadows

Rafik Gouïaa, Jean Meunier

OP2: Video Analysis and Object Tracking

Session Chair: Alireza Bab-Hadiashar, RMIT University

P99) Tracking based sparse box proposal for time constraint detection in video stream.

Adrien Chan-hon-tong, Stéphane Herbin

P237) A Novel Algorithm of Lane Detection with a variance of scenarios including curved and dashed lane marks

Upendra Suddamalla, Saikat Kundu, Sameer Farkade, Apurba Das

P266) Ensemble-based Learning Using Few Training Samples for Video Surveillance Scenarios

Catalin Mitrea, Serban Carata, Bogdan Ionescu, Tomas Piatrik, Marian Ghenescu

P14) Robust Vehicle Counting with Severe Shadows and Occlusions

Louahdi Khoudour, Paul Valiere, Alain Crouzil, Dungngchi Truong Cong

P264) A versatile object tracking algorithm combining Particle Filter and Generalised Hough Transform

Antoine Tran, Antoine Manzanera

P17) SURF-based human tracking algorithm for a human-following mobile robot

Meenakshi Gupta, Swagat Kumar, Nishant Kejriwal, Laxmidhar Behera, K Venkatesh

OP3: Image Segmentation

Session Chair: Alfian Abdul Halin, University of Putra

P224) Interactive max-tree visualization tool for image processing and analysis

Luis Tavares, Roberto Souza, Leticia Rittner, Rubens Machado, Roberto Lotufo

P239) Morphological Object Picking Based on the Color Tree of Shapes

Edwin Carlinet, Thierry Géraud

P88) Classical Processing for Plane and Omnidirectional Images

Hani Boukrouche, Soraya Zenati

P165) Shape prior based image segmentation using manifold learning

Arturo Mendoza Quispe, Caroline Petitjean

P74) Image Segmentation by Multi-Level Thresholding based on Fuzzy Entropy and Genetic Algorithm

Mohan Muppidi, Paul Rad

P9) Contour Expansion Algorithm Preprocessed by Hough Transform and Circular Shortest Path for Ovoid Objects

Mohamed Tleis, Fons Verbeek

Wednesday, November 11th, 2015

Plenary Talk: *Can we trust any photo?*

Alex C. Kot, School of EEE, College of Engineering, Rapid-Rich Object Search (ROSE) Lab, Singapore

Chair: Cristian Perra, University of Cagliari

OP4: Medical Image Segmentation

Chair: Caroline Petitjean, University of Rouen

P118) 2-Step Robust Vertebra Segmentation

Jean-Baptiste Courbot, Edmond Rust, Emmanuel Monfrini, Christophe Collet

P128) Theoretical analysis of Hough Transform optimal cell size: Segmentation of nearby lines

Marjan Hadian-Jazi, Ali Bab-Hadiashar, Reza Hoseinnezhad

P76) A new definition of fuzzy contours in mammographic images

Marwa Hmida, kamel hamrouni, Basel Solaiman

P187) Segmentation of Tumor Vessels based on Parallel Double Snakes Including Region Information

Pierre Glanc, Florence Rossant, Stéphanie Pitre-Champagnat

P280) Detection and Segmentation of Microcalcifications using Multifractal Analysis

Inès Slim Salhi, Hanen Akkari Bettaieb, Asma Ben Abdallah, Imen Bhourri, Mohamed Hèdi Bédoui

OP5: Shape and Object Recognition

Chair: Abdeslam Benzinou, ENIB

P127) Recognition of Shape Parts Using Shape Geodesics

Mayss'aa Merhy, Abdesslam Benzinou, Kamal Nasreddine, Mohamad Khalil, Ghaleb Faour

P141) Symbol recognition using directional and spatial features

The-Anh Pham, Nam Hoang, Hong Le, VanHao Le

P159) Rényi Divergence as Contrast Metric for Object Detection In Noisy Images

Aymeric Histace, David Rousseau

P160) Shape Matching using Keypoints Extracted from both the Foreground and the Background of Binary Images

Housseem Chatbri, Kenny Davila, Keisuke Kameyama, Richard Zanibbi

Special Session 2: Cultural Heritage and Image Processing

Plenary Talk: New Strategies for Interactive Web-based Visualization of Cultural Heritage Imagery

Robert Erdmann, University of Amsterdam

Chair: Aladine Chetouani, David Picard, Olivier Rozenbaum

P161) LBP-Based Degraded Document Image Binarization

Abdenour Sehad, Youcef Chibani, Rachid Hedjam and Mohamed Cheriet

P214) Automatic Generation of Video from Digital Paintings for Cultural Heritage

Pol Kennel, Frédéric Comby, William Puech

P227) Automatic Pattern Recognition on Archaeological Ceramic by 2D And 3D Image Analysis: A Feasibility Study

Debrouette Teddy, Janvier Romain, Chetouani Aladine, Treuillet Sylvie, Exbrayat Matthieu, Martin Lionel, Jesset Sebastien

P234) An Analysis of Ground Truth Binarized Image Variability of Palm Leaf Manuscripts

Made Windu Antara Kesiman, Sophea Prum, I Made Gede Sunarya, Jean-Christophe Burie, Jean-Marc Ogier

OP6: Color Description and Texture Analysis

Chair: Jean Martinet, Université de Lille 1

P66) Noise Tolerant Descriptor for Texture Classification

Thanh Phuong Nguyen, Antoine Manzanera

P19) A New LBP Histogram Selection Score for Color Texture Classification

Mariam Kalakech, Alice Porebski, Nicolas Vandenbroucke, Denis Hamad

P155) cFast: A Fast Color Feature Detector

C. Robert Pech, Jens Vial, Andreas Zell

P157) A Fast Embedded Selection Approach for Color Texture Classification Using Degraded LBP

Alice Porebski, Nicolas Vandenbroucke, Denis Hamad

OP7: Human and Face Recognition

Chair: Hichem Frigui, University of Louisville

P85) Human Identification System based on the detection of Optical Disc Ring in retinal images

Takwa Chihaoui, Rostom Kachouri, Hejer Jlassi, Mohamed Akil, Kamel Hamrouni

P90) Random Forest-based feature selection for emotion recognition

Sonia Gharsalli, Bruno Emile, H el ene Laurent, Xavier Desquesnes, Damien Vivet

P226) Super-Resolution Pipeline for Fast Adjudication in Watchlist Screening

Vitaliy Tayanov, Miguel Bordallo, Eric Granger, Abdenour Hadid

P170) Bimodal 2D-3D face recognition using a two-stage fusion strategy

Amel Aissaoui, Jean Martinet

P279) Individualised Model of Facial Age Synthesis Based on Constrained Regression

Ali Bukar, Hassan Ugail, David Connah

OP8: Medical Image Analysis

Chair: Hamid Tizhoosh, University of Waterloo

P150) Classification of Bone Pathologies with Finite Discrete Shearlet Transform Based Shape Descriptors

Aysun Sezer, Hasan Basri Sezer, Songul Albayrak

P203) Dam-based Rolling Ball with Fuzzy-Rough Constraints, a New Background Subtraction Algorithm for Image Analysis in Microscopy

Fuyu Cai, Fons Verbeek

P211) ROI impact on the characterization of knee osteoarthritis using fractal analysis

Thomas Janvier, Hechmi Toumi, Eric Lespessailles, Rachid Jennane

P72) Osteoporosis Diagnosis using Steerable pyramid Decomposition and Fractional Brownian Motion

Abdessamad Tafraouti, Mohammed El Hassouni, Hechmi Toumi, Eric Lespessailles, Rachid Jennane

P12) A subset-search and ranking based feature-selection for histology image classification using global and local quantification

Jeremy Coatelen, Ad el aide Albouy-Kissi, Benjamin Albouy-Kissi, Laurence Maunier-Sifre, Juliette Joubert-Zakeyh, Pierre Dechelotte, Armand Abergel

P255) The Use of Dual-Energy X-ray Absorptiometry Images to evaluate the risk of bone Fracture

Awad Bettamer, Ahmad Almhdie-Imjabber, Ridha Hambli, Samir Allaoui, Mussa Mahmud, Rachid Jennane

Thursday, November 12th, 2015

Plenary Talk: *Patterns and disorder in chaos: A nonlinear approach to improve image analysis*

Odemir M. Bruno, University of São Paulo, Institute of Mathematics and Computer Sciences São Paulo, Brazil

Chair: Antoine Manzanera, ParisTech

Special Session 3: Medical Image Analysis, Security and Communication I

Chair: Jean-Marie Moureaux, Khalifa Djemal, William Puech

P219) Advanced Sensor Noise Analysis for CT-Scanner Identification from its 3D Images

Anas Kharboutly, William Puech, Gérard Subsol, Denis Hoa

P218) Significant Point Characterization in Fundus Images

Sandra Morales, Valery Naranjo, Adrián Colomer, Mariano Alcañiz

P271) Accelerated Mutual Entropy Maximization for Biomedical Image Registration

I. Sitdikov, F. Guryanov, A. S. Krylov

P67) Using Artificial Immune Algorithm for Fast Convergence of Multi-Layer Perceptron in Breast Cancer Diagnosis Application

Rima Daoudi, Khalifa Djemal, Abdelkader Benyettou

P130) Multicriteria 3D PET image segmentation

Francisco Alvarez Padilla, Eloïse Grossiord, Barbara Romaniuk, Benoît Naegel, Camille Kurtz, Hugues Talbot, Laurent Najman, Romain Guillemot, Dimitri Papathanassiou, Nicolas Passat

OP9: Video Description

Chair: Azeddine Beghdadi, University of Paris 13

P98) Coarse Localization Using Space-Time and Semantic-Context Representations of Geo-Referenced Video Sequences

Jassem Mansouri, Bassem Saddik, Thierry Chateau, Sami Gazzah

P263) Detection of Line Scratch Using Energy Regularity of Spatio-Temporal Video Cube

Rupesh Kumar, Sumana Gupta, K Venkatesh,

P251) Identification of Cardio-Pulmonary Resuscitation (CPR) Scenes in Medical Simulation Videos Using Spatio-temporal Gradient Orientations

Anju Panicker Madhusoodhanan Sathik, Hichem Frigui, Aaron Calhoun

P153) Geometric transforms and reference picture list optimization for efficient disparity compensation

Ricardo Monteiro, Nuno Rodrigues, Sérgio Faria

OP10: Image Registration and 3D Analysis

Chair: Charles Yaacoub, Holy Spirit University of Kaslik (USEK)

P233) Automated Heart Rate Estimation in Fish Embryo

Elodie Puybareau, Hugues Talbot, Marc Léonard

P254) Non-Rigid Registration of Magnetic Resonance Imaging of Brain.

Clément Chesseboeuf, Hermine Biermé, Julien Dambrine, Carole Guillevin, Rémy Guillevin

P162) A New Curves-based Method for Adaptive Multimodal Registration

Chafik Samir, Antoine Sarbinowski, Samir Khoualed, Sebastian Kurtek

P89) Sphere Recognition for Foams Composite Materials Images

Amaury Walbron, Denis Rochais, Sylvain Chupin, Maitine Bergounioux, Romain Abraham

P189) Silhouette-based 3D Model for Zebrafish High-throughput Imaging

Yuanhao Guo, Wouter Veneman, Herman Spaink, Fons Verbeek

P15) Correction of RF Inhomogeneities for High Throughput Water and Fat Quantification by MRI

Julien Picaud, Guylaine Collewet, Jérôme Idier

Special Session 4: Medical Image Analysis, Security and Communication II

Chair: Jean-Marie Moureaux, Khalifa Djemal, William Puech

P182) Cervical vertebral corner detection using Haar-like features and modified Hough Forest

S M Masudur Rahman Al Arif, Muhammad Asad, Karen Knapp, Michael Gundry, Greg Slabaugh

P228) Hidden Biometric Identification/Authentication based on Phalanx Selection from Hand X-Ray Images with Safety considerations

Yeihya Kabbara, Amine Nait-Ali, Ahmad Shahin, Mohamad Khalil

P207) Retinal vessel inpainting using Recursive Least Square Dictionary Learning Algorithm

Adrián Colomer, Valery Naranjo, Kjersti Engan, Karl Skretting

P235) Segmentation of left ventricle on MRI sequences for blood flow cancelation in Thermo-therapy

Samah Bouzidi, Aurélie Emilien, Bruno Quesson, Chokri Ben Amar, Jenny Benois Pineau, Pascal Desbarats

P258) Influence of ultrasound despeckling on the liver fibrosis classification

Alexander Khvostikov, Andrey Krylov, Julius Kamalov, Alina Megroyan

P278) Comparing Endoscopic Imaging Configurations in Computer-Aided Celiac Disease Diagnosis

Michael Gadermayr, Hubert Kogler, Andreas Uhl, Andreas Vécsei

OP11: Image Reconstruction and Video Enhancement

Chair: Natasa Sladoje, Upsala University

P246) Blur kernel estimation via salient edges and nonlocal regularization

Suil Son, Suk Yoo

P257) Multispectral Demosaicing using Intensity-based Spectral Correlation

Sofiane Mihoubi, Olivier Losson, Benjamin Mathon, Ludovic Macaire

P163) Improving BM3D on Non-Stationary Gaussian Models for Real Image Noise
Ibrahim Halfaoui, Onay Urfalioglu

P260) Shape Restoration for Robust Tangent Principal Component Analysis
Michel Abboud, Abdesslam Benzinou, Kamal Nasreddine, Moustapha Jazar

P243) On Compressed Sensing Image Reconstruction using Multichannel Fusion and Adaptive Filtering
Sheikh Rafiul Islam, Santi Maity, Ajoy Ray

OP12: Image Compression and Coding

Chair: Abdelhani Boukrouche, University of Guelma

P247) Comparison of JPEG's competitors for document images
Mostafa Darwiche, The-Anh Pham, Mathieu Delalandre

P256) Data Formats for High Efficiency Coding of Lytro-Illum Light Fields
*Alexandre Vieira, Helder Duarte, Cristian Perra, Luis Tavora, Pedro Assuncao**

P282) An Image Compression Algorithm using Reordered Wavelet Coefficients with Compressive Sensing
Mohammad Ali Qureshi, Mohamed Deriche, Azeddine Beghdadi

P184) Improved Transform Skip Mode for HEVC Screen Content Coding
Jiun-Yu Kao, Maryam Azimi Hashemi, Xiaoyu Xiu, Yan Ye, Yuwen He, Jie Dong

Friday, November 13th, 2015

Plenary Talk: *Quantitative Bioimage Analysis: from cell to numbers*
Jean-Christophe Olivo-Marin, Bioimage analysis unit, Institut Pasteur, Paris, France

Chair: Christophe Fiorio, University of Montpellier

Special Session 5: Perceptually Driven Visual Information Analysis

Chair: Chaker Larabi, Mohammed El Hassouni, Frédéric Morain-Nicolier

P253) Reprojection error as a new metric to detect assembly/disassembly maintenance tasks
Alia Rukubayihunga, Jean-Yves Didier, Samir Otmane

P283) An Information based Framework for performance evaluation of image enhancement methods
Mohammad Ali Qureshi, Mohamed Deriche, Azeddine Beghdadi

P148) Adaptive Cost Aggregation Table on Conditional Random Fields for Intelligent Vehicles
JeongMok Ha, JeaYoung Jeon, Sung Yong Jo, Hong Jeong

P144) Automatic Object Segmentation Using Perceptual Grouping of Regions with Contextual Constraints
Mohsen Zand, Shyamala Doraisamy, Alfian Abdul Halin, Mas Rina Mustaffa

P117) Iterative Tone Mapping of High Dynamic Range Images Based on Structural Fidelity Measure
Charles Yaacoub, Petra Bilane, Cendrella Yaghi, Christine Bou-Rizk

OP13: Image Formation and Retrieval

Chair: Gholamreza Anbarjafari, University of Tartu

P238) Embedded Line Scan Image Sensors: The Ultra-Low Cost Alternative for High Speed Imaging

Stef Van Wolputte, Wim Abbeloos, Toon Goedemé

P104) Autoencoding the Retrieval Relevance of Medical Images

Hamid Tizhoosh, Zehra Çamlıca, Farzad Khalvati

P248) Multi-focal Video Fusion with a Beam Splitter Prism

Ben Parslow, Ben Parslow, Bernard Evans, David O'Carroll, Steven Wiederman

P222) Hue class equalization to improve a hierarchical image retrieval system

Tristan D'Anzi, William Puech, Christophe Fiorio, Jérémie François

P240) Quantifying Asynchrony of Multiple Cameras using Aliased Optical Devices

Bernard Evans, Ben Parslow, David O'Carroll, Steven Wiederman

OP14: Character and Object Recognition

Chair: Chair: Aladine Chetouani, University of Orleans

P80) Efficient Multiscale and Multifont Optical Character Recognition System based on robust Feature Description

Mahmoud Soua, Rostom Kachouri, Mohamed Akil

P116) Detecting stony areas based on ground surface curvature distribution

Paavo Nevalainen, Ilkka Kaate, Tapio Pahikkala, Raimo Sutinen, Maarit Middleton, Jukka Heikkonen

P204) Segmentation-Verification Based on Fuzzy Integral for Connected Handwritten Digit Recognition

Abdeljalil Gattal, Youcef Chibani, Bilal Hadjadj, Nesrine Bouadjenek, Imran Siddiqi, Chawki Djeddi

P101) Structure Tensor Regularization for Texture Analysis

Adib Akl, Joe Iskandar