

International Conference on Image Processing Theory, Tools and Applications

IPTA 2010

July 7-10, 2010

Paris, France

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IPTA Venue

The conference will be held in the *Centre Internationale de Sejour de Paris Maurice Ravel* (C.I.S.P).

CISP Address: 6 Av. Maurice Ravel, 75012 Paris, France,

Homepage <http://www.cisp.fr/cisp/index.asp?ln=us>

Author Informations

Official Language of the Conference

The official language of the conference is English and will be used for all presentations and printed material.

Oral Presentations

A 20 mn (15mn presentation and 5mn for questions) is allocated for each contributed oral presentation by a video projector.

Wednesday July 7, 2010

8h30-10h40

10h40-11h00

11h00-11h30

Welcome Desk / Registration

Welcome Coffee

Official Opening

Wednesday, 11h30-12h30

Tutorial T1: Image and Video Descriptors
Abdenour Hadid, University of Oulu, Finland

Chair: Liming Chen
Room: Ravel Theatre

Lunch

Wednesday, 14h00-16h00

Oral Session OS18: Image Processing Tools

Chair: Moncef Gabbouj

Room: Ravel Theatre

P86: Embedded System for Real-Time Human Motion Detection
Mohammad Mayya, Nizar Zarka and Mhd. Soubhi Alkadi

P123: Exploration of an adaptive NoC architecture on FPGA dedicated to multi and hyperspectral algorithm for art authentication
Virginie Fresse, Junyan Tan and Frederic Rousseau

P173: Automatic Generation of Analog Hardware Description Language (AHDL) Code from Cell Culture Images
Alberto Yufera and Estefania Gallego

P84: Implementation of a Reticle Seeker Missile Simulator for Jamming Effect Analysis
Ga-Young Kim, Byoung-Ik Kim, Tae-Wuk Bae, Young-Choon Kim, Sang-Ho Ahn and Kyu-Ik Sohng

P54: An efficient vision system to measure granule velocity and mass flow distribution in fertiliser centrifugal spreading
Sylvain Villette, Christelle Gee, Emmanuel Piron, Richard Martin, Denis Miclet and Michel Paindavoine

Wednesday, 14h00-16h00

Oral Session OS14: Shape and Objects Recognition

Chair: Hadid Abdenour

Room: Trichaud 1

P186: Volume estimation of 3D particles with known convex shapes from its projected areas
Benoît Presles, Johan Debayle, Ana Cameirao, Gilles Févotte and Jean-Charles Pinoli

P149: Recognition of Objects in Various Situations from Two Dimensional Images
Yuexing Han, Hideki Koike, Bing Wang and Masanori Idesawa

P178: Shape representation and analysis of 2D compact sets by shape diagrams
Severine Rivollier, Johan Debayle and Jean-Charles Pinoli

P148: Binary Pattern Matching from a Local Dissimilarity Measure
Frédéric Morain-Nicolier, Jérôme Landré and Su Ruan

P119: A New Combining Learning Method for Color Constancy
Tara Akhavan and Mohsen Ebrahimi Moghaddam

P215: Visual Object Recognition using Local Binary Patterns and Segment-based Feature
Chao Zhu, Huanzhang Fu, Charles-Edmond Bichot, Emmanuel Dellandrea and Liming Chen

Coffee Break

Wednesday, 16h15-17h15

Tutorial T2: H.264 video watermarking: applications, principles, deadlocks, and future
Marc Chaumont, University of Montpellier II, France

Chair: Hichem Maaref
Room: Ravel Theatre

Wednesday, 17h15-18h15

Tutorial T3: Medical image analysis using high-dimensional information theoretic criteria
Nicolas Rougon, Institut Telecom SudParis ARTEMIS Department, France

Chair: Moncef Gabbouj
Room: Ravel Theatre

Welcome Cocktail

Thursday July 8, 2010

8h30-9h00

Welcome Desk / Registration

Thursday, 9h00-10h00

Invited Speaker IS2: Multidimensional Particle Swarm Optimization and Applications in Data Clustering and Image Retrieval
Moncef Gabbouj, University of Technology, Finland

Chair: Kurosh Madani
Room: Ravel Theatre

Coffee Break

Thursday, 10h20-12h30

Oral Session OS1: Special session on Feature selection and kernel methods for image classification, image segmentation and pattern recognition

Chair: Su Ruan, Khalifa Djemal and Jean Pierre Cocquerez
Room: Ravel Theatre

P57: Fusion and classification of multi-source images by SVM with selected features in a kernel space
Su Ruan, Nan Zhang, Stéphane Lebonvallet, Qingming Liao and Yuemin Zhu

P113: Feature Subspaces Selection via One-Class SVM: Application to Textured Image Segmentation
Xiyan He, Pierre Beausery and Andre Smolarz

P219: Adaptive Feature Selection for Heterogeneous Image Databases
Rostom Kachouri, Khalifa Djemal and Hichem Maaref

P187: Comparison of Feature Selection Schemes for Color Texture Classification
Alice Porebski, Nicolas Vandenbroucke and Ludovic Macaire

P165: Connectivity feature extraction for spatio-functional clustering of fMRI data
S. Emeriau, F. Blanchard, JB. Poline, L. Pierot and E. Bittar

Lunch

Thursday, 14h00-16h00

Oral Session OS13: Motion Estimation and Tracking

Chair: Isabelle Bloch

Room: Trichaud 1

P58: Modular Ensemble Tracking

Thomas Penne, Christophe Tilmant, Thierry Château and Vincent Barra

P108: Improved Two-bit Transform-based Motion Estimation via Extension of Matching Criterion

Changryoul Choi and Jechang Jeong

P31: The computation of the Bhattacharyya distance between histograms without histograms

Séverine Dubuisson

P175: Full motion detection system with post-processing

Lounis Douadi, Louahdi Khoudour, Anis Chaari and Jacques Boonaert

P185: Eye Tracking for Foveation Video Coding and Simple Scene Description

Mauritz Panggabean, Stig Salater and Leif Arne Rønningen

P112: Particle filtering with fuzzy spatial relations for object tracking

Nicolas Widynski, Séverine Dubuisson and Isabelle Bloch

Thursday, 14h00-16h00

Oral Session OS10: Medical Image Segmentation and Detection

Chair: Mohamed Deriche

Room: Ravel Theatre

P89: Contiguity-constrained Hierarchical Clustering for Image Segmentation

Eduardo R. Concepcion Morales and Yosu Yurramedi Mendizabal

P68: Graph cut segmentation technique for MRI brain tumor extraction

Victor Chen and Su Ruan

P92: A New Segmentation Technique for Brain and Head from High Resolution MR Image Using Unique Histogram Features

Somjit Saha, Sarit Kumar Das and Avijit Kar

P208: New Feature-Based Detection of Blood Vessels and Exudates in Color Fundus Images

Doaa Youssef, Nahed Solouma, Amr El-dib, Mai Mabrouk and Abu-Bakr Youssef

P228: A Fast Geodesic Active Contour Model For Medical Images Segmentation using Prior Analysis

S. Al-Sharif, M. Deriche and N. Maalej

P164: Atlas-based Segmentation of Brain MR Images Using Least Square Support Vector Machines

Keyvan Kasiri, Kamran Kazemi, Mohammad Javad Dehghani and Mohammad Sadegh Helfroush

Thursday, 14h00-16h00

Oral Session OS5: Video Coding

Chair: Marc Chaumont, Room: Trichaud 2

P152: Memory Requirements and Simulation Platform for the Implementation of the H.264 Encoder Modules

Messaoudi Kamel, Bourennane El-Bay, Toumi Salah, Kerkouche Omar and Labbani Oassila

P64: Temporal Transcoding of H.264/AVC Video to the H.264/SVC Format

Hussain Al-Muscati and Fabrice Labeau

P91: Temporal Error Concealment Algorithm for H.264/AVC Using Omnidirectional Motion Similarity

Changki Min, Soonjong Jin, Hyeongchul Oh, Sang-Jun Park and Jechang Jeong

P56: Robust Multiple Hypothesis Motion Compensated Prediction within the H.264/AVC Standard

Tamim Haroun and Fabrice Labeau

Coffee Break

Thursday, 16h15-18h00

Oral Session OS8: Image Enhancement

Chair: William Puech, Room: Trichaud 1

P143: Stego image quality: a subjective evaluation

Adel Almohammad and Gheorghita Ghinea

P193: Empirical mode decomposition based visual enhancement of underwater images

Aysun Tasyapi Celebi and Sarp Erturk

P14: An Adaptive Algorithm for Phase Retrieval from High Intensity Images

Eran Gur and Gilad Avidor

P195: Human Visual System Based Mammogram Enhancement and Analysis

Yicong Zhou, Karen Panetta and Sos Agaian

P138: Laplacian Pyramid Decomposition-Type Method for Resolution Enhancement of Ultrasound Images

Marie Ploquin, Jean-Marc Girault and Denis Kouamé

Thursday, 16h15-18h00

Oral Session OS15: Face and Iris Detection and Recognition

Chair: Liming Chen, Room: Ravel Theatre

P177: Hybrid Super Resolution using Refined Face Logs

Kamal Nasrollahi and Thomas B. Moeslund

P77: Vision Based Human Interaction System for Disabled

Saurav Kumar, Atul Rai, Akhilesh Agarwal and Nisha Bachani

P63: Bayesian Regularized Nonnegative Matrix Factorization Based Face Features Learning

Xueyi Zhao

P98: Relevance analysis of 3D curvature-based shape descriptors on interest points of the face

Alexander Ceron, Augusto Salazar and Flavio Prieto

P157: Localization of noncircular iris boundaries using Morphology and arched Hough transform

Hamed Ghodrati, Mohammad Javad Dehghani, Mohammad Sadegh Helfroush and Kamran Kazemi

P197: An Algorithm for Iris Extraction

Tomas Fabian, Jan Gaura and Petr Kotas

Thursday, 16h15-18h00

Oral Session OS16: Remote Sensing Applications

Chair: Hichem Maaref

Room: Trichaud 2

P115: Multidimensional Image Processing for Remote Sensing Anomaly Detection
Dalton Rosario and Joao Romano

P167: Improvement of the Space Resolution of the Optical Remote Sensing Image By the Principle of CCD Imaging
Qing Liu, Sun'an Wang, XiaoHui Zhang and Yun Hou

P169: Detecting Potential Human Activities Using Coherent Change Detection
Nada Milisavljevic, Damien Closson and Isabelle Bloch

18h15 **Welcome reception offert by the Mayor of the 12th area of Paris.**

Friday July 9, 2010

8h30-9h00 Welcome Desk / Registration

Friday, 9h00-10h00

Invited Speaker IS3: Distributed Video Coding: Status, Challenges and Outlook
Frédéric Dufaux, Swiss Federal Institute of Technology (EPFL), Switzerland

Chair: Mohamed Deriche

Room: Ravel Theatre

Coffee Break

Friday, 10h20-12h30

Oral Session OS2: Special session on Video Surveillance: Tools and Applications

Chair: Louahdi Khoudour and Catherine Achard, Room: Ravel Theatre

P153: Audio-Video Surveillance System for Public Transportation
Quoc-Cuong Pham, Agnès Lapeyronnie, Christelle Baudry, Laurent Lucat, Patrick Sayd, Sébastien Ambellouis, David Sodoyer, Amaury Flancquart, Alain-Claude Barcelo, Frédéric Heer, Fabrice Ganansia and Vincent Delcourt

P3: Pedestrian detection based on Adaboost algorithm with a pseudo-calibrated camera
Damien Simonnet and Sergio A Velastin

P111: People re-identification by classification of silhouettes based on sparse representation
Dung Nghi Truong Cong, Catherine Achard and Louahdi Khoudour

P136: A Benchmark for Background Subtraction Algorithms in Monocular Vision: a Comparative Study
Yoann Dhome, Nicolas Tronson, Antoine Vacavant, Thierry Chateau, Christophe Gabard, Yann Goyat and Dominique Gruyer

P183: Background Subtraction and 3D Localization of Moving and Stationary Obstacles at Level Crossings
Fakhfakh Nizar, Khoudour Louahdi, EL-Koursi El-Miloudi, Bruelle Jean-Luc, Dufaux Alain and Jacot Jacques

Lunch

Friday, 14h00-16h00

Oral Session OS12: Image Indexing and Retrieval

Chair: Hichem Frigui, Room: Trichaud 1

P170: Query-by-Sketch based Image Retrieval using Diffusion Tensor Fields
Sang Min Yoon and Arjan Kuijper

P198: Multi-Level Visual Alphabets
Menno Israel, Jetske van der Schaar, Egon L. van der Broek, Marten den Uyl and Peter van der Putten

P27: Stroke feature extraction for letter indexing
Giap Nguyen, Mickaël Coustaty and Jean-Marc Ogier

Friday, 14h00-16h00

Oral Session OS6: Image and Video Processing

Chair: Frédéric Dufaux, Room: Ravel Theatre

P180: Temporal Video Segmentation Using a Switched Affine Models Identification Technique
Khaled Boukharouba, Laurent Bako and Stéphane Lecoecue

P38: Enhancing Perceptual Quality of Watermarked High-Definition Video through Composite Mask
Tae-Woo Oh, Kyung-Su Kim, Hae-Yeon Lee, Ji-Won Lee and Heung-Kyu Le

P52: Covariance-Based Adaptive Deinterlacing Method using Edge Map
Sang-Jun Park, Gwanggil Jeon and Jechang Jeong

P147: Watermarking Ancient Documents Schema Using Wavelet Packets and Convolutional Code
Mohamed Neji Maatouk, Majd Bellaj and Najoua Essoukri Ben Amara

P83: Objective Evaluation of Compressed Video's Temporal Flickering
Salim Chebbo, Philippe Durieux and Béatrice Pesquet-Popescu

P85: Key Frame-Based Video Super-Resolution Using Bi-Directional Overlapped Block Motion Compensation and Trained Dictionary
Byung Cheol Song, Shin-Cheol Jeong and Yanglim Choi

Coffee Break

Friday, 16h15-18h00

Oral Session OS3: Special session on Medical Imaging

Chair: Jean Meunier and Gérard Subsol, Room: Ravel Theatre

P174: Points of Interest Detection in Cervical Spine Radiographs by Polygonal Approximation
Fabian Lecron, Mohammed Benjelloun and Saïd Mahmoudi

P207: Comparison of Optimization Techniques for Regularized Statistical Reconstruction in X-Ray Tomography
Benoit Hamelin, Yves Goussard and Jean-Pierre Dussault

P120: Intravascular Ultrasound Image Segmentation: A Helical Active Contour Method
Melissa Jourdain, Jean Meunier, Jean Séqueira, Guy Cloutier and Jean-Claude Tardif

P121: Automatic Identification of Cell Files in Light Microscopic Images of Conifers Wood
Pol Kennel, Gérard Subsol, Michaël Guérout and Philippe Borianne

21h00

Banquet

Saturday July 10, 2010

8h30-9h00

Welcome Desk / Registration

Saturday, 9h00-10h00

Invited Speaker IS1: Indexing of compressed video: methods, challenges, applications
Jenny Benois-Pineau, University of Bordeaux, France

Chair: Hichem Frigui , Room: Ravel Theatre

Coffee Break

Saturday, 10h20-12h30

Oral Session OS9: Image Segmentation and Detection

Chair: William Puech, Room: Ravel Theatre

P102: Co-parent selection for fast region merging in pyramidal image segmentation
Milos Stojmenovic, Andres Solis Montero and Amiya Nayak

P131: Estimation of uncertainty for Harris corner detector
Marc Bertrand, Frédéric Bouchara and Sofiane Ramdani

P168: Wavelet-Based Acoustic Seabed Discrimination System
Reza Javidan

P24: A new Descriptor for Textured Image Segmentation based on Fuzzy Type-2 Clustering Approach
Lotfi Tlig, Mounir Sayadi, Farhat Fnaiech

P166: Rooftop Detection using a Corner-Leaping based Contour Propagation Model
Masoud S. Nosrati and Parvaneh Saeedi

P128: A Markov Random Field description of fuzzy color segmentation
Angela D'Angelo and Jean-Luc Dugelay

Saturday, 10h20-12h30

Oral Session OS11: Image Classification and Categorization

Chair: Hichem Frigui, Room:Trichaud 1

P202: Improved Modified Suppressed Fuzzy C-Means
Mohamed Fadhel SAAD and Adel M. ALIMI

P216: Image Modeling Using Statistical Measures for Visual Object Categorization
Huanzhang Fu, Alain Pujol, Emmanuel Dellandréa and Liming Chen

P141: Support Vector Machine Fusion of Multisensor Imagery in Tropical Ecosystems
Robin Pouteau, Benoît Stoll and Sébastien Chabrier

P134: Texture classification for multi-spectral images using spatial and spectral gray level differences
Riad Khelifi, Mouloud Adel and Salah Bourenane

P163: Image Database Categorization using Robust Modeling of Finite Generalized Dirichlet Mixture
M. Maher Ben Ismail and Hichem Frigui

Lunch

Saturday, 14h00-16h00

Oral Session OS4: Coding and Compression

Chair: Jenny Benois-Pineau

Room: Trichaud 1

P118: Spectrogram Image Encoding Based on Dynamic Hilbert Curve Routing
ChingShun Lin and DaRen Wang

P181: Analysis of the robustness of wavelet-based perceptual signatures
Azhar Hadmi, William Puech, Brahim Ait Es Said and Abdellah Ait Ouahman

P59: Improving Compression Times in Zero-Tree Based Image Coding Procedures
Jonas Valantinas and Deividas Kancelkis

P55: Hyperspectral Image Compression Based on Tucker Decomposition and Discrete Cosine Transform
Azam Karami, Mehran Yazdi and Alireza Zolghadre Asli

P124: Fast zonal DCT-based image compression for Wireless Camera Sensor Networks
Leila Makkaoui, Vincent Lecuire and Jean-Marie Moureaux

Saturday, 14h00-16h00

Oral Session OS17: Augmented and Virtual Reality Techniques and Applications

Chair: Malik Mallem

Room: Ravel Theatre

P189: Virtual Domotic Systems: a 3D Interaction Technique to Control Virtual Building Devices Using Residential Gateways
Francisco Pedro Luque, Francisco Javier Luque, Carmen Lastres, Asunción Santamaría, Iris Galloso and Jordi Muria

P95: SURF applied in Panorama Image Stitching
Luo Juan and Gwun Oubong

P223: SPIDAR Calibration using Support Vector Regression
Pierre Boudoin, Hichem Maaref, Samir Otmane and Malik Mallem

P13: Measurement of laboratory fire spread experiments by stereovision
Lucile Rossi, Thierry Molinier, Moulay Akhloufi and Yves Tison

P139: A visual attention focusing system using an active stereoscopic vision sensor
Yann Ducrocq, Shahram Bahrami, Luc Duvieubourg and François Cabestaing

P40: Validation of a virtual agronomic image modelling
Gawain Jones, Christelle Gee, Sylvain Villette and Frédéric Truchetet

Saturday, 14h00-16h00

Oral Session OS7: Image Reconstruction and Registration

Chair: Jean Pierre Guédon

Room: Trichaud 2

P162: The 2 and 3 materials scene reconstructed from some line Mojette projections
Jean-Pierre Guedon and Chuanlin Liu

P142: Edgeworth-based approximation of Mutual Information for medical image registration
Mathieu Rubeaux, Jean-Claude Nunes, Laurent Albera and Mireille Garreau

P51: Mojette Reconstruction from Noisy Projections
Benoit Recur, Pascal Desbarats and Jean-Philippe Domenger

P127: Comparison of Interpolation Methods for Angular Resampling of Diffusion Weighted images
Félix Renard, Vincent Noblet, Antoine Grigis, Christian Heinrich and Stéphane Kremer

Coffee Break

Saturday, 16h15-17h15

Invited Speaker IS4: Augmented Reality: Issues, Trends and Challenges
Malik Malle, University of Evry Val d'Essonne, France

Chair: Kurosh Madani

Room: Ravel Theatre

17h15 Cloture

Looking forward to see you on IPTA'12

Thank you

<http://ipta12.ibisc.univ-evry.fr>