



International Conference on Image and Signal Processing

ICISP 2008

July 1-3, 2008

Cherbourg-Octeville, Normandy, France

CONFERENCE PROGRAM



Preface

ICISP 2008, the International Conference on Image and Signal Processing, was the third ICISP conference, and was held in Cherbourg-Octeville, Normandy, France. Historically, ICISP is a conference resulting from the actions of researchers of Canada, France and Morocco. Second and first editions of ICISP were held in Agadir, Morocco in 2003 and 2001. ICISP 2008 is sponsored by EURASIP (European Association for Image and Signal Processing) and IAPR (International Association for Pattern Recognition).

The response to the call for papers for ICISP 2008 was encouraging. From 193 full papers submitted, 70 were finally accepted (48 oral presentations, and 22 posters). The review process was carried out by the Program Committee members; all are experts in various image and signal processing areas. Each paper was reviewed by at-least two reviewers, and also checked by the conference co-chairs. The quality of the papers in these proceedings is attributed first to the authors, and second to the quality of the reviews provided by the experts. We would like to thank the authors for responding to our call, and we thank the reviewers for their excellent work.

We were very pleased to be able to include in the conference program keynote talks by four world-renowned experts: Prof. Joachim Weickert, Full Professor of Mathematics and Computer Science at Saarland University, Germany, where he heads the Mathematical Image Analysis Group; and Prof. Godfried T. Tousseint, Professor Emeritus at the School of Computer Science and the Centre for Interdisciplinary Research in Music Media and Technology at McGill University, Montreal, Quebec, Canada; and Prof. Driss Aboutajdine, Full Professor at the Science Faculty of Rabat University, Morocco; and David Tschumperlé, permanent CNRS researcher in the Image group of the GREYC research laboratory, Caen, France.

We would like to thank Amal Mahboubi, the web-master of the conference for maintaining the Web pages and Agnès Zannier for her administrative assistance. We would also like to thank the members of the local committee for their advice and help. We are also grateful to Springer's editorial staff for supporting this publication in the LNCS series.

Finally, we were very pleased to welcome all the participants to this conference. For those who did not attend, we hope this publication provides a good view into the research presented at the conference, and we look forward to meet you at the next ICISP conference.

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ICISP 2008 – International Conference on Image and Signal Processing

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Conference Programme

Schedule	June 30, 2008
17h00-19h00	Registration
Schedule	July 1, 2008
08h00-09h00	Registration
09h00-09h30	Opening ceremony
09h30-10h30	Keynote : G. Toussaint
10h30-10h45	Coffee break
10h45-12h45	Image Filtering and Segmentation
12h45-14h00	Lunch Break
14h00-15h00	Keynote : D. Tschumperlé
15h00-16h00	Computer Vision
16h00-16h15	Coffee Break
16h15-17h15	Biomedical Applications
17h15-18h15	Posters I
18h30-19h30	Departure to Cherbourg Museum
20h00	Cocktail in Cherbourg City Hall
Schedule	July 2, 2008
08h00-09h00	Registration
09h00-10h00	Graph-based representations
10h00-10h15	Coffee break
10h15-12h30	Feature Extraction and Pattern Recognition
12h30-14h00	Lunch Break
14h00-15h00	Keynote : J. Weickert
15h00-16h00	Document Processing
16h00-16h15	Coffee Break
16h15-16h45	Motion
17h00	Departure to Social Event
20h30	Conference Dinner
Schedule	July 3, 2008
08h00-09h00	Registration
09h00-10h00	Keynote : D. Aboutajdine
10h00-10h15	Coffee break
10h15-12h15	Signal Processing I
12h15-14h00	Lunch Break
14h00-14h45	Signal Processing II
14h45-15h30	New Interfaces
15h30-15h45	Coffee Break
15h45-16h45	Posters II
16h45-17h00	Closing & Farewell

Sessions – July, 1, 2008

10h45 – 12h45 Image Filtering and Segmentation

- 10h45-11h00, Topology-preserving discrete deformable model: Application to multi-segmentation of brain MRI
Sanae Miri, Nicolas Passat, Jean-Paul Armspach
- 11h00-11h15, Discrete Pulse Transform of Images
Roumen Anguelov, Inger Fabris-Rotelli
- 11h15-11h30, Constrained Unsharp Masking for Image Enhancement
Radu Ciprian Bilcu, Markku Vehvilainen
- 11h30-11h45, Discrete Wavelet Diffusion for Image Denoising
Kashif Rajpoot, Nasir Rajpoot, Alison Noble
- 11h45-12h00, A Neuro Fuzzy Model for Image Compression in Wavelet Domain
Vipula Singh, Navin Rajpal, K. Srikanta Murthy
- 12h00-12h15, A Real Time Human Detection System Based on Far Infrared Vision
Yannick Benezeth, Bruno Emile, Hélène Laurent, Christophe Rosenberger
- 12h15-12h30, Dynamic Color Texture Modeling And Color Video Decomposition Using Bounded Variation And Oscillatory Functions
Mathieu Lugiez, Michel Ménard, Abdallah El-Hamidi
- 12h30-12h45, Reinstating Floyd-Steinberg: Improved Metrics for Quality Assessment of Error Diffusion Algorithms
Sam Hocevar, Gary Nger

15h00 – 16h00 Computer Vision

- 15h00-15h15, Uniqueness filtering for local feature descriptors in urban building recognition
Giang Phuong Nguyen, Hans Jørgen Andersen
- 15h15-15h30, Dynamic skin detection in color images for sign language recognition
Michal Kawulok
- 15h30-15h45, Dynamic Human Fatigue Detection Using Feature-Level Fusion
Xiao Fan, Bao-Cai Yin, Yan-Feng Sun
- 15h45-16h00, Real time monocular depth from defocus
Jean-Vincent Leroy, Thierry Simon, François Deschenes

16h15-17h15 Biomedical Applications

- 16h15-16h30, Digital Signal Processing Techniques for Gene Finding in Eukaryotes
Mahmood Akhtar, Eliathamby Ambikairajah, Julien Epps
- 16h30-16h45, A CAD System for Long-bone Segmentation and Fracture Detection
Martin Donnelley, Greg Knowles, Trevor Hearn
- 16h45-17h00, Comparison of Image Restoration Methods for Bioluminescence Imaging
Smaïl Akkoul, Roger Ledee, Remy Leconge, Christophe Leger, Rachid Harba, Sabrina Pesnel, Stéphanie Leronde, Alain Lepape
- 17h00-17h15, Texture Based Multiscale Segmentation: Application to Stromal Compartment Characterization on Ovarian Carcinoma Virtual
Nicolas Signolle, Benoît Plancoulaine, Paulette Herlin, Marinette Revenu

17h15 – 18h15 Posters I

- Depth Estimation by Finding Best Focused Points using Line Fitting
Aamir Saeed Malik, Tae-Sun Choi
- Improved Phase Correlation Matching
Javed Ahmed, Muhammad Noman Jafri
- An Algorithm to Determine the Chromaticity under Non-uniform Illuminant
Sivalogeswaran Ratnasingam, Steve Collins
- Human Hand Gesture Recognition Using Motion Orientation Histogram for Interaction of Handicapped Persons with Computer
Maryam Vafadar, Alireza Behrad
- 3D Human Motion Reconstruction using Video Processing
Nadiya Roodsarabi, Alireza Behrad
- A new approach to estimate fractal dimension of texture images
André Ricardo Backes, Odemir Martinez Bruno
- Transients detection in the time-scale domain
Vittoria Bruni, Domenico Vitulano
- SIFT based Ball Recognition in Soccer Images
Marco Leo, Tiziana D'Orazio, Paolo Spagnolo, Pier Luigi Mazzeo, Arcangelo Distante
- A Version of the FastICA Algorithm Based on the Secant Method combined with Simple Iterations Method
Doru Constantin, Luminita State
- A people counting system based on dense and close stereovision
Tarek Yahiaoui, Cyril Meurie, Louahdi Khoudour, François Cabestaing

- Evaluation Protocol for Localization Metrics Application to a Comparative Study
Baptiste Hemery, H el ene Laurent, Christophe Rosenberger, Bruno Emile
- SVM-Based Face Recognition Using Genetic Search for Frequency-Feature Subset Selection
Amine Aouatif, Mohammed Rziza, Driss Aboutajdine

Sessions – July, 2, 2008

09h00 – 10h00 Graph-based representations

- 10h00-10h15, A path following algorithm for graph matching
Mikhail Zaslavskiy, Francis Bach, Jean-Philippe Vert
- 10h15-10h30, Statistically Valid Graph Representations of Scale-Space Geometry
Tomoya Sakai, Atsushi Imiya
- 10h30-10h45, Hierarchical Matching using Combinatorial Pyramid Framework
Luc Brun, Jean-Hugues Pruvot

10h15 – 12h30 Feature Extraction and Pattern Recognition

- 10h15-10h30, Classification of Proteomic Signals by Block Kriging Error Matching
Tuan D. Pham, Dominik Beck, Miriam Brandl, Xiaobo Zhou
- 10h30-10h45, Pair correlation integral for fractal characterization of three-dimensional histograms from color images
Julien Chauveau, David Rousseau, François Chapeau-Blondeau
- 10h45-11h00, Accelerating Integral Histograms Using an Adaptive Approach
Thomas Müller, Claus Lenz, Simon Barner, Alois Knoll
- 11h00-11h15, Volume estimation of small particles using three-dimensional reconstruction from multiple views
Eduardo Castillo-Castaneda, Christelle Turchiuli
- 11h15-11h30, Grip-Pattern Recognition in Smart Gun Based on Likelihood-Ratio Classifier and Support Vector Machine
Xiaoxin Shang, Raymond Veldhuis
- 11h30-11h45, Chirplet Transform Applied to Simulated and Real Blue Whale (*Balaenoptera musculus*) Calls
Mohammed Bahoura, Yvan Simard
- 11h45-12h00, Illumination Invariant Face Recognition under Various Facial Expressions and Occlusions
Tiwuya H. Faaya, Önsen Toygar
- 12h00-12h15, A multivariate Hit-or-Miss Transform for conjoint spatial and spectral template matching
Jonathan Weber, Sébastien Lefèvre
- 12h15-12h30, Blur Insensitive Texture Classification Using Local Phase Quantization
Ville Ojansivu, Janne Heikkilä

15h00 – 16h00 Document Processing

- 15h00-15h15, Watermarking Based on the Density Coefficients of Faber-Schauder Wavelets
Mohamed El hajji, Hassan Douzi, Rachid Harba
- 15h15-15h30, Arabic Handwritten Characters Classification Using Learning Vector Quantization Algorithm
Mohamed A. Ali
- 15h30-15h45, A complete pyramidal geometrical scheme for text based image description and retrieval
Guillaume Joutel, Véronique Eglin, Hubert Emptoz
- 15h45-16h00, Local Orientation Extraction For Wordspotting In Syriac Manuscripts
Petra Bilane, Stéphane Bres, Hubert Emptoz

16h15 – 16h45, Motion

- 16h15-16h30, Multi-cue Facial Feature Detection and Tracking
Jingying Chen, Bernard Tiddeman
- 16h30-16h45, Body Language Based Individual Identification in Video using Gait and Actions
Yogarajah Pratheepan, Philip H.S. Torr, Joan V. Condell, Girijesh Prasad

Sessions – July, 3, 2008

10h15 – 12h15, Signal Processing I

- 10h15-10h30, Wavelet-Packet Identification of Dynamic Systems with Coloured Measurement Noise
Henrique Mohallem Paiva, Roberto Kawakami Harrop Galvão
- 10h30-10h45, Comparison of the cross deleted Wigner representation and the matching pursuit distribution (via adaptive signal decomposition)
Sedigheh Ghofrani, Desmond C. McLernnon
- 10h45-11h00, Mean Weight Behavior of Coupled LMS Adaptive Systems Applied to Acoustic Feedback Cancellation in Hearing Aids
Yasmín Montenegro M. José C. M. Bermudez
- 11h00-11h15, Sound Localization Based on Excitation Source Information for Intelligent Home Service Robots
Keun-Chang Kwak
- 11h15-11h30, A Procedure For Efficient Generation Of $\frac{1}{f^\beta}$ Noise Sequences
Youcef Ferdi, Abdelmalik Taleb-Ahmed
- 11h30-11h45, Voicing Detection in Noisy Speech Signal
Aïcha Bouzid, Nouredine Ellouze

- 11h45-12h00, Coherent Synchronization of a Chaotic Communication System Based on a QAM-4 Transmitter
Roxana Burghalea, Jean Philippe Mangeot, Frédéric Launay
- 12h00-12h15, Joint multiple target tracking and classification using controlled based cheap JPDA-Multiple model particle filter in cluttered environment
Zahir Messaoudi, Abdelaziz Ouldali, Mourad Oussalah

14h00 – 14h45 Signal Processing II

- 14h00-14h15, Design and Implementation of an Image CoProcessor
Reza Ebrahimi Atani, Sattar Mirzakuchaki, Shahabaddin Ebrahimi Atani
- 14h15-14h30, A New Approach for Reducing Embedding Noise in Multiple Bit Plane Steganography
Arijit Sur, Piyush Goel, Jayanta Mukhopadhyay
- 14h30-14h45, Correlation, independance and inverse modeling
Vincent Vigneron

14h45 – 15h30 New Interfaces

- 14h45-15h00, Face tracking for spatially aware mobile user interfaces
Jari Hannuksela, Pekka Sangi, Markus Turtinen, Janne Heikkilä
- 15h00-15h15, Personal Recognition Using Single-sensor Multimodal Hand Biometrics
Andreas Uhl, Peter Wild
- 15h15-15h30, Markerless Augmented Reality using Image Mosaics
Pietro Azzari, Luigi Di Stefano, Federico Tombari, Stefano Mattoccia

15h45 – 16h45 Posters II

- Region-Based Wavelet-Packet Adaptive Algorithm for Sparse Response Identification
Odair A. Noskoski, José C. M. Bermudez
- Simulation Method of SAR Raw Echo for Urban Scene
Yingxi Zheng, Bo Zhou, Zhulin Zhong
- Underwater Passive Location Technology using Dummy Time-Reversal Mirror
Xueli Sheng, Junying Hui, Guolong Liang
- Off-line Arabic Handwritten Characters Recognition based on a Hidden Markov Models
Mustapha Amrouch, Mostafa Elyassa, A. Rachidi, Driss Mammass
- Combination of Image Registration Algorithms for Patient Aligement in Proton Beam Therapy
Rachid Belaroussi, Guillaume Morel

- A Novel Text-Independent Speaker Verification System using Ant Colony Optimization Algorithm
Shahla Nemati, Reza Boostani, Mohammad D. Jazi
- Speech signal processing based on Wavelets and SVM for vocal tract pathology detection
Peter Kukharchik, Igor Kheidorov, Evgeny Bovbel, D. Ladeev
- Image Retrieval. Color and Texture Combining Based on Query-Image
Ilya Markov, Natalia Vassilieva
- Multifractal Analysis on the Sphere
Emilie Koenig, Pierre Chainais
- Markerless outdoor localisation based on SIFT descriptors for mobile applications
Frank Lorenz Wendt, Stéphane Bres, Bruno Tellez, Robert Laurini