

# **2010 Sixth International Conference on Signal-Image Technology and Internet Based Systems**

**(SITIS 2010)**

**Kuala Lumpur, Malaysia  
15 – 18 December 2010**



**IEEE Catalog Number: CFP1095D-PRT  
ISBN: 978-1-4244-9527-6**

# 2010 Sixth International Conference on Signal-Image Technology and Internet Based Systems

## SITIS 2010

### Table of Contents

<b>Foreword</b> .....	x
<b>Objectives</b> .....	xi
<b>Conference Committees</b> .....	xii
<b>Additional Reviewers</b> .....	xiv
<b>Message from the SIT Track Chairs</b> .....	xv
<b>Message from the IBCS Track Chairs</b> .....	xvi
<b>SIT Track Committees</b> .....	xviii
<b>IBCS Track Committees</b> .....	xxi
<b>Message from the KARE Workshop Chair</b> .....	xxiii
<b>KARE Workshop Committees</b> .....	xxiv

---

#### **Track: Signal Image Technologies (SIT)**

Thermal Physiological Moment Invariants for Face Identification .....	1
<i>Khairul Hamimah Abas and Osamu Ono</i>	
A Thin-Plate Spline Based Multimodal Prostate Registration with Optimal Correspondences .....	7
<i>Jhimli Mitra, Arnau Oliver, Robert Martí, Xavier Lladó, Joan C. Vilanova, and Fabrice Meriaudeau</i>	
Image Registration Using OpponentSIFT Descriptor: Application to Colposcopic Images with Specular Reflections .....	12
<i>Othmane El Meslouhi, Hakim Allali, Taoufiq Gadi, Yassir Ait Benksddour, and Mustapha Kardouchi</i>	
Prostate Segmentation with Texture Enhanced Active Appearance Model .....	18
<i>Soumya Ghose, Arnau Oliver, Robert Martí, Xavier Lladó, Jordi Freixenet, Joan C. Vilanova, and Fabrice Meriaudeau</i>	
A Comparative Study of Feature Extraction Methods for Wood Texture Classification .....	23
<i>Prasetyo, Marzuki Khalid, Rubiyah Yusof, and Fabrice Meriaudeau</i>	

Car Plate Character Extraction and Recognition Using Stroke Analysis .....	30
<i>S. Setumin, U.U. Sheikh, and S.A.R Abu-Bakar</i>	
Multiple Birth and Cut Algorithm for Point Process Optimization .....	35
<i>Ahmed Gamal-Eldin, Xavier Descombes, and Josiane Zerubia</i>	
Stylization of Lighting Effects for Images .....	43
<i>Catherine Sauvaget and Vincent Boyer</i>	
A Region-Based Progressive Coding of Semi-Regular 3-D Meshes for View-Dependent Transmission .....	51
<i>Céline Roudet</i>	
Fractal-based Impressionist Style Rendering .....	60
<i>Farès Belhadj and Vincent Boyer</i>	
Combining Multiple Image Features to Guide Automatic Portrait Cropping for Rendering Different Aspect Ratios .....	66
<i>Claudio S.V.C. Cavalcanti, Herman Martins Gomes, and José Eustáquio Rangel de Queiroz</i>	
A Method to Control Parameters of Evolutionary Algorithms by Using Reinforcement Learning .....	74
<i>Yoshitaka Sakurai, Kouhei Takada, Takashi Kawabe, and Setsuo Tsuruta</i>	
Effective Feature Selection for Face Recognition Based on Correspondence Analysis and Trained Artificial Neural Network .....	80
<i>Zohreh Pazoki and Fardad Farokhi</i>	
Backtrack and Restart Genetic Algorithm to Optimize Delivery Schedule .....	85
<i>Yoshitaka Sakurai, Kouhei Takada, Natsuki Tsukamoto, Takashi Onoyama, Rainer Knauf, and Setsuo Tsuruta</i>	
Starfruit Color Maturity Classification Using Cr as Feature .....	93
<i>R. Amirulah, M.M. Mokji, and Z. Ibrahim</i>	
Can Mean Shift Trackers Perform Better? .....	98
<i>Huiyu Zhou, Gerald Schaefer, Yuan Yuan, and M. Emre Celebi</i>	
Measuring Anthropometric Data for HRTF Personalization .....	102
<i>Martin Rothbucher, Tim Habigt, Julian Habigt, Thomas Riedmaier, and Klaus Diepold</i>	
Biological Sensor Fusion Using Sensor Reliability Evaluation for Situation Assesment .....	107
<i>Yoshitaka Sakurai, Kouhei Takada, Takashi Kawabe, and Setsuo Tsuruta</i>	
A Perceptually Adaptive Scheme for Image Bit-Inversion-Based Watermarks .....	114
<i>Tadahiko Kimoto and Fumihiko Kosaka</i>	
Missing Features Restoration Using Clustering Methods .....	123
<i>H.T. Rassem and P.N. Girija</i>	

Rasterization by Multiresolution Integration .....	127
<i>Raphaël Lemoine and Vincent Boyer</i>	
Processor-efficient FFT Implementation Scheme for Active Noise Control Applications .....	134
<i>P. Vikram Kumar, K.M.M. Prabhu, and Debi Prasad Das</i>	
A Preliminary Study to Reduce the Missing Wedge Effect by Using a Noise Robust Mojette Reconstruction .....	141
<i>B. Recur, P. Desbarats, and J.P. Domenger</i>	
Reduced Size Harmonic Suppressed Fractal Dipole Antenna with Integrated Reconfigurable Feature .....	149
<i>Shipun Anuar Hamzah, Mazlina Esa, Nik Noordini Nik Abd Malilk, and Mohd Khairul Hisham Ismail</i>	
Segmented Images Colorization Using Harmony .....	153
<i>Catherine Sauvaget, Stéphane Manuel, Jean-Noël Vittaut, Jordane Suarez, and Vincent Boyer</i>	
Starfruit Image Segmentation Based on YCbCr Color Space .....	161
<i>R. Amirulah, M.M. Mokji, Z. Ibrahim, and U.U. Sheikh</i>	
An Energy-based Algorithm for Automatic Prostate in TRUS Images .....	165
<i>Ahad Salimi, Omid Mahdiyar, Hassan Masoumi, and Dena Vakili</i>	
Automatic Segmentation of Abdominal Aortic Aneurysm in Computed Tomography Images Using Spatial Fuzzy C-Means .....	170
<i>Emadaldin Mozafari Majd, U.U. Sheikh, and S.A.R. Abu-Bakar</i>	
The Comparison of Different Classifiers for Precision Improvement in Image Retrieval .....	176
<i>Maryam Shahabi Lotfabadi and Rezvan Mahmoudie</i>	
<b>Track: Internet Based Computing and Systems (IBCS)</b>	
Interactive Analysis of Relational Information .....	179
<i>B. Dousset, E. Loubier, and J. Mothe</i>	
Detecting Worms Using Data Mining Techniques: Learning in the Presence of Class Noise .....	187
<i>Ismahani Ismail, Muhammad Nadzir Marsono, and Sulaiman Mohd Nor</i>	
Classifying Web Pages Using Information Extraction Patterns Preliminary Results and Findings .....	195
<i>Lay-Ki Soon and Sang Ho Lee</i>	
A Knowledge Engineering Method to Represent and Optimize Learning Processes and its Empirical Validation .....	203
<i>Rainer Knauf, Yoshitaka Sakurai, Kohei Takada, and Setsuo Tsuruta</i>	

A Cross-disciplinary Collaborative Research Platform - Study on Qinghai Lake Joint Research Environment .....	211
<i>Juan Zhao, Shuren Li, Jianjun Yu, Kejun Dong, Kai Nan, and Baoping Yan</i>	
Knowledge Cartography and Social Network Representation: Application to Collaborative Platforms in Scientific Area .....	217
<i>Michel Plantié and Pierre-Michel Riccio</i>	
Evaluation of Enriched Cyberspace for Adaptive Support of Remote Collaboration .....	225
<i>Yoshitaka Sakurai, Kinshuk, Kouhei Takada, Takashi Kawabe, Rainer Knauf, and Setsuo Tsuruta</i>	
Native XML Document Fragmentation Model .....	233
<i>Leykun Birhanu, Solomon Atnafu, and Fekade Getahun</i>	
A New Trust Management Model in P2P Systems .....	241
<i>Samir Moalla, Sana Hamdi, and Bruno Defude</i>	
A Temporal Spatial Access Method .....	247
<i>Ameur Touir, Hassan Mathkour, and Manan AlMusallam</i>	
Watermarking to Enforce Medical Image Access and Usage Control Policy .....	251
<i>Wei Pan, Gouenou Coatrieux, Nora Cuppens-Boulahia, Frédéric Cuppens, and Christian Roux</i>	
Event Based Modeling for Context-Reactive Information Systems .....	261
<i>Ansem Ben Cheikh, Agnès Front, Stéphane Coulondre, and Jean-Pierre Giraudin</i>	
Integrating Ontologies in Database Scheme: Ontology-Based Views Conceptual Modeling .....	269
<i>Oumar Sy, Moussa Lo, and Denio Duarte</i>	
A Formal Approach for Interoperability Testing of Security Rules .....	277
<i>Mazen El Maarabani, Iksoon Hwang, and Ana Cavalli</i>	
A Sale-oriented Online-shop Management Support Method for E-commerce .....	285
<i>Yoshitaka Sakurai, Takashi Kawabe, Takahiko Sakai, Kouhei Takada, Setsuo Tsuruta, and Yoshiyuki Mizuno</i>	
Semantic Queries on Service-Oriented Information Systems .....	293
<i>Sylvain Rakotomalala, Elie Abi-Lahoud, and Kokou Yetongnon</i>	
A Performance Evaluation Framework for Library Search Engines .....	301
<i>Maria Soledad Pera and Yiu-Kai Ng</i>	
Protein Structure Modeling in Two-Level Topology Strings for Structure Comparison .....	309
<i>Jafar Razmara, Safaai B. Deris, and Sepideh Parvizpour</i>	
A Flexible Approach for Visualization Development .....	315
<i>Xiaoyan Bai, David White, and David Sundaram</i>	

An Indoor 3D Location Tracking System Using RSSI .....	323
<i>Norhidayu Shahila Abu Hassan, Sazzad Hossain, Nur Haliza Abdul Wahab, Sharifah Hafizah Syed Ariffin, Norsheila Fisal, Liza Abd Latiff, Mazlan Abbas, and Choong Khong Neng</i>	
A Collaborative Platform for Sharing Scientific Data and Experiments: Application to Characterization Experiments of Photovoltaic Cells .....	329
<i>Tepe Kossi, Aziz El Fazziki, and Kossi Napo</i>	
<b>Workshop on Knowledge Acquisition, Reuse and Evaluation (KARE)</b>	
Moving Toward a Product Model to Manage Data, Information and Knowledge for Mechanical Design and Simulation .....	336
<i>J. Badin, D. Monticolo, D. Chamoret, and S. Gomes</i>	
Analysis of Interactions on Coordination for Design Projects .....	344
<i>Nada Matta, Hassan Atifi, Mohammed Sediri, and Mohammed Sagdal</i>	
Specification of a Knowledge Crossroads for a Productive and Optimised Design .....	348
<i>Christophe Petit, Daniel Schlegel, and Samuel Gomes</i>	
OCEAN: A Semantic Web Service to Extract Knowledge in E-Groupwares .....	354
<i>Inaya Lahoud, Davy Monticolo, and Samuel Gomes</i>	
<b>Author Index</b> .....	363