

2011 IEEE Applied Imagery Pattern Recognition Workshop

(AIPR 2011)

**Washington, DC, USA
11-13 October 2011**



**IEEE Catalog Number: CFP11274-PRT
ISBN: 978-1-4673-0215-9**

TABLE OF CONTENTS

Kent Mixture Model for Classification of Remote Sensing Data on Spherical Manifolds.....	1
<i>D. Lunga, O. Ersoy</i>	
Segmentation of Color Images of Plants With a Markovian Mean Shift	8
<i>J. Nagau, J.L. Henry</i>	
Image Denoising with a Multi-Phase Kernel Principal Component Approach and an Ensemble Version.....	13
<i>A. Sahu, G. Rungar, D. Apley</i>	
Integrating Lidar into the Community Sensor Model Construct	20
<i>C. Rodarmel, M. Lee, H. Theiss</i>	
Image Registration and a Metric to Assess the Transformation Function	27
<i>J. Marshall, P. Doucette</i>	
Error Propagation for DEM-based Georegistration of Motion Imagery.....	33
<i>M. Pritt, E. Wright, K. LaTourette</i>	
Automated Georegistration of Motion Imagery.....	39
<i>M. Pritt, K. LaTourette</i>	
Automated Segmentation of Epiphysis and Metaphysis for Computerized Bone Age Analysis	45
<i>A. Agrawal, U. Patil, S. Ranjan</i>	
Organ Localization Through Anatomy-aware Non-rigid Registration with Atlas.....	49
<i>S. Ranjan</i>	
Integration of Geometric and Topological Uncertainties for Geospatial Data Fusion and Mining	54
<i>B. Kovalevchuk, L. Perlovsky</i>	
A System for Change Detection and Human Recognition in Voxel Space Using the Microsoft Kinect Sensor	62
<i>T. Gill, J.M. Keller, D.T. Anderson, R.H. Luke</i>	
Fusion of Differential Morphological Profiles for Multi-scale Weighted Feature Pyramid Generation in Remotely Sensed Imagery.....	70
<i>G. Scott, D. Anderson</i>	
Generic Framework for Organ Localization in CT and MR Images	78
<i>V. Venkatraghavan, S. Ranjan</i>	
Sparse Linearized Iterative Coherence Estimation (SLICE) and Risk Assessment In Image Analysis	85
<i>R. Bonneau, S. Bonneau</i>	
Mobile Robot Navigation under Duct Environment.....	92
<i>H. Sun, D. Kim, J.H. Hwang, C.W. Park</i>	
Object Recognition in Ocean Imagery Using Feature Selection and Compressive Sensing	95
<i>K. Rainey, J. Stastny</i>	
A Palm Print Authentication System Using Quantized Phase Feature Representation	101
<i>A. Kumar, M. Hanmandlu, V. Madasu, S. Vasikarla</i>	
Multi-Domain Data Modeling for Biometrics	109
<i>A. Chen, J. Kinser</i>	
Fusion of Anomaly Algorithm Decision Maps and Spectrum Features for Detecting Buried Explosive Hazards in Forward Looking Infrared Imagery.....	114
<i>D.T. Anderson, J. Farrell, K. Stone, J.M. Keller, C. Spain</i>	
Are Face Recognition Methods Useful for Classifying Ships?	122
<i>J. Harguess, K. Rainey</i>	
Multiple Human Body Tracking using the Fusion of CCD and Thermal Image Sensor	129
<i>B.D. Kang, K.H. Jeon, D. Kyoung, S.H. Kim, J.H. Hwang</i>	
An Image Analysis Method for Quantification of Idiopathic Pulmonary Fibrosis	133
<i>M. Acharya, J. Kinser, S. Nathan, M. Albano, L. Schlegel</i>	
Fusion of Infrared and Visible Images using Empirical Mode Decomposition and Spatial Opponent Processing.....	138
<i>P. Sissinto, J. Ladeji-Osias</i>	
Multimodal Image Matching using Self Similarity	144
<i>J. Huang, S. You, J. Zhao</i>	
Rapid Extraction and Updating of Road Network from Airborne LiDAR Data	150
<i>J. Zhao, S. You, J. Huang</i>	

Implementation of FPGA for Decision Making in Portable Automatic Testing Systems for IC's library & Digital Circuits.....	157
<i>M.S. Zaghloul, M. Saleh</i>	
Robust Classification Using Support Vector Machine in Low-Dimensional Manifold Space for Automatic Target Recognition.....	163
<i>S. Hu, H. Kwon, R. Rao</i>	
3D Exploitation of 2D Ground-Level & Aerial Imagery	167
<i>P. Cho, N. Snavely</i>	
Indexing and Keyword Search to Ease Navigation in Lecture Videos	175
<i>T. Tuna, J. Subhlok, S. Shah</i>	
CFAR Fusion: A Replacement for the Generalized Likelihood Ratio Test for Neyman-Pearson Problems.....	183
<i>A. Schaum</i>	
Hyperspectral Remote Sensing Subpixel Object Detection Performance.....	189
<i>J. Kerekes</i>	
Estimation of Hyperspectral Covariance Matrices.....	193
<i>A. Ben-David, C. Davidson</i>	
Evaluating and Improving Local Hyperspectral Anomaly Detectors	197
<i>L. Bachega, J. Theiler, C. Bouman</i>	
Earthen Levee Monitoring with Synthetic Aperture Radar	205
<i>J. Aanstoos, K. Hasan, C. O'hara, S. Prasad, L. Dabbiru, M. Mahrooghy, B. Gokaraju, R. Nobrega</i>	
Vision Algorithms for Automated Census of Animals	211
<i>C. Cohen, D. Haanpaa, S. Rowe, J. Zott</i>	
Real-time Web-based Hyperspectral Data Viewing and Control	216
<i>M. Mehrubeoglu, L. Pham, N. Paleti</i>	
Real-Time Eye Tracking Using a Smart Camera	224
<i>M. Mehrubeoglu, L. Pham, H. Le, R. Muddu, D. Ryu</i>	
On the Use of Covariance and Correlation Matrices in Hyperspectral Detection	231
<i>C. Davidson, A. Ben-David</i>	
Effect of Vegetation Height and Volume Scattering on Soil Moisture Classification Using Synthetic Aperture Radar (SAR) Images	237
<i>M. Mahrooghy, J. Aanstoos, K. Hasan, S. Prasad, N. Younan</i>	
Handling Pose Variation in Face Recognition using SIFT	242
<i>B. Bhattacharya, M. Zhu</i>	
Texture Analysis of GPR Data as a Tool for Depicting Soil Mineralogy	246
<i>A. Cataklı, H. Mahdi, H. Al-Shukri</i>	
Pavement Distress Detection and Classification Using A Genetic Algorithm.....	254
<i>E. Salari, X. Yu</i>	
Development of Staring Hyperspectral Imagers	259
<i>N. Gupta</i>	
Author Index	