

2012 IEEE Applied Imagery Pattern Recognition Workshop

(AIPR 2012)

Washington, DC, USA
9 – 11 October 2012



IEEE Catalog Number: CFP12274-PRT
ISBN: 978-1-4673-4558-3

TABLE OF CONTENTS

Future Image Frame Generation Using Artificial Neural Network with Selected Features	1
<i>N. Verma</i>	
Unsupervised Land Cover Classification in Multispectral Imagery with Sparse Representations on Learned Dictionaries	9
<i>D. Moody, S. Brumby, J. Rowland, C. Gangodagamage</i>	
Fusion of LIDAR Data with Hyperspectral and High- Resolution Imagery for Automation of DIRSIG Scene Generation	19
<i>R. Givens, K. Walli, M. Eismann</i>	
Attribute Analyses Of GPR Data For Heavy Minerals Exploration	26
<i>A. Catakli, H. Mahdi, H. Al-Shukri</i>	
Image Search System.....	35
<i>P. Cho, M. Yee</i>	
Distributed Adaptive Spectral and Spatial Sensor Fusion for Super-resolution Classification	42
<i>T. Khuon, R. Rand, J. Greer, E. Truslow</i>	
Centralized Multi-Scale Singular Value Decomposition for Feature Construction in LIDAR Image Classification Problems	50
<i>D. Bassu, R. Izmailov, A. McIntosh, L. Ness, D. Shallcross</i>	
Contextual Video Clip Classification	56
<i>S. Guler, A. Morde, I. Pushee, X. Ma, J. Silverstein, S. McAuliffe</i>	
Generation of Future Image Frames using Adaptive Network Based Fuzzy Inference System on Spatiotemporal Framework.....	64
<i>N. Verma, Shimaila</i>	
Wide-Area Motion Imagery (WAMI) Exploitation Tools for Enhanced Situation Awareness.....	72
<i>E. Blasch, G. Seetharaman, K. Palaniappan, H. Ling, G. Chen</i>	
Obtaining Accurate Change Detection Results From High-Resolution Satellite Sensors.....	80
<i>N. Bryant, W. Bunch, R. Fretz, P. Kim, T. Logan, M. Smythi, A. Zobrist</i>	
Simulating Vision Through Time: Hierarchical, Sparse Models Of Visual Cortex For Motion Imagery	85
<i>A. Galbraith, S. Brumby, R. Chartrand</i>	
Video Track Screening Using Syntactic Activity-based Methods	93
<i>R. Wood, C. McPherson, J. Irvine</i>	
Registration of Region of Interest for Object Tracking Applications in Wide Area Motion Imagery	99
<i>K. Jackovitz, V. Asari, E. Balster, J. Vasquez, P. Hytla</i>	
Evidence Filtering in a Sequence of Images for Recognition	107
<i>S. Lee, M. Ilyas, K. Jaewoong, A. Naguib</i>	
A New Approach to Graph Analysis for Activity Based Intelligence.....	115
<i>W. Raetz</i>	
Novel Features For Silhouette Based Gait Recognition Systems	123
<i>A. Kochhar, D. Gupta, M. Hanmandlu, S. Vasikarla</i>	
Polarization Imaging for Crystallographic Orientation Of Large Mercurous Halide Crystals.....	129
<i>F. Jin, J. Kim, S. Kutcher, E. Haskovic, D. Meyers, J. Soos, S. Trivedi, N. Gupta</i>	
Detection of Slump Slides on Earthen Levees Using Polarimetric SAR Imagery	133
<i>J. Aanstoos, K. Hasan, C. O'Hara, L. Dabbiru, M. Mahrooghy, R. Nobrega, M. Lee</i>	
Template Matching Localization for GPS Denied Environments	140
<i>S. Rowe, P. Mahal, L. Burkowski, G. Beach, C. Cohen</i>	
Focal Plane Array Folding for Efficient Information Extraction and Tracking	146
<i>L. Hamilton, D. Parker, C. Yu, P. Indyk</i>	
Spatial Oversampling in Imaging Sensors: Benefits in Sensitivity and Detection.....	152
<i>J. Caulfield, J. Wilson, N. Dhar</i>	
Enhanced Event Recognition in Video Using Image Quality Assessment.....	158
<i>J. Irvine, M. Young, O. Deutsch, E. Antelman, S. Guler, A. Morde, X. Ma, I. Pushee</i>	
Spatial Feature Evaluation for Aerial Scene Analysis	166
<i>T. Swearingen, A. Cheriyyadat</i>	
Deriving Economic and Social Indicators from Imagery	172
<i>J. Irvine, J. Lepanto, J. Regan, M. Young</i>	
Automatic Ship Hull Inspection Using Fuzzy Logic	178
<i>J. Contreras, W. Cuadrado, D. Munoz, G. Archbold, D. Geraldine, V. Diaz</i>	

Fusion of LIDAR Data with Hyperspectral and High-Resolution Imagery for Automation of DIRSIG Scene Generation	183
<i>R. Givens, K. Walli, M. Eismann</i>	
Visualization of Scene Structure Uncertainty in Multi-View Reconstruction	190
<i>S. Recker, M. Hess-Flores, M. Duchaineau, K. Joy</i>	
Toward a Common Lexicon for Exploiting Activity Data.....	197
<i>S. Israel</i>	
Action Classification in Polarimetric Infrared Imagery via Diffusion Maps.....	203
<i>W. Sakla</i>	
Robust Needle Recognition using Artificial Neural Network (ANN) and Random Sample Consensus (RANSAC).....	211
<i>J. Chang</i>	
Exploring the Uses of Fingerprint Patterns and Ridge- counts in Biographical Associations.....	214
<i>D. Herdegen, M. Loew</i>	
Path-Based Constraints for Accurate Scene Reconstruction from Aerial Video	219
<i>M. Hess-Flores, M. Duchaineau, K. Joy</i>	
Vessel Detection in Video with Dynamic Maritime Background.....	227
<i>M. Chan, C. Weed</i>	
Online Biometric Authentication Using Facial Thermograms.....	232
<i>M. Hanmandlu, S. Vasikarla</i>	
Author Index	