2008 IEEE Southwest Symposium on Image Analysis & Interpretation

Santa Fe, NM 24-26 March 2008



IEEE Catalog Number: CISBN 10: 1-

ISBN 13:

CFP08401-PRT 1-4244-2296-5 978-1-4244-2296-8

TABLE OF CONTENTS

L1: TEXTURE AND FEATURES
L1.1: TEXTURE CLASSIFICATION IN MICROSTRUCTURE IMAGES OF
L1.2: INFRARED TARGET TRACKING WITH AM-FM CONSISTENCY
L1.3: FINDING EDGE FEATURES USING THE FAST LEVEL SET9 TRANSFORM AND THE HELMHOLTZ PRINCIPLE Arjuna Flenner, NAWS China Lake, United States
L1.4: AM-FM IMAGE ANALYSIS USING THE HILBERT HUANG
L1.5: AM-FM DEMODULATION METHODS FOR RECONSTRUCTION,
L2: BIOLOGY AND BIOMETRICS
L2.1: MATCHING AND RETRIEVAL OF TATTOO IMAGES: ACTIVE
L2.2: AUTOMATED FACIAL FEATURE DETECTION FROM PORTRAIT AND
L2.3: AUTOMATED DETECTION AND ANALYSIS OF FORAGING BEHAVIOR
P1: IMAGE ANALYSIS IN THE 3-D WORLD
P1.1: STEREOSCOPIC PHASE-DIFFERENCING: MULTISCALE SYNTHESIS
P1.2: HUMAN MOTION PARAMETER CAPTURING USING PARTICLE

P1.3: AN ANALYSIS OF SPHERE TESSELLATIONS FOR POSE ESTIMATION
P1.4: SHAPE'S RELATED 3D OBJECTS INDEXING AND IMAGE DATABASE
P1.5: REAL-TIME AND SIMULTANEOUS RECOGNITION OF MULTIPLE
P1.6: FOVEATED OBJECT RECOGNITION USING CORNERS53 Thomas Arnow, Alan Bovik, University of Texas at Austin, United States
P1.7: A FAST AND ROBUST APPROACH TO LANE MARKING DETECTION
P2: IMAGE ANALYSIS FOR BIOMEDICINE
P2.1: IDENTIFICATION OF BRAIN IMAGE BIOMARKERS BY OPTIMIZED
P2.2: INDEPENDENT COMPONENT ANALYSIS FOR VISION-INSPIRED
P2.3: SPARSE SHIFT-INVARIANT NMF
P3: INTELLIGENT IMAGE ENHANCEMENT AND QUALITY ASSESSMENT
P3.1: VISUAL FIXATION PATTERNS WHEN JUDGING IMAGE QUALITY:
P3.2: FIRST RESULTS IN PERCEPTUALLY-BASED AM-FM IMAGE

P3.3: ENHANCEMENTS OF AN ADAPTIVE NEIGHBORHOOD SPECKLE81 FILTERING ALGORITHM TO IMPROVE ANALYSIS OF POLARIMETRIC SAR IMAGERY
Jason Fritz, Colorado State University/Vexcel Corp., United States; Mark Tabb, Microsoft Corp., United States; Chandra Chandrasekar, Colorado State University, United States
P3.4: MODELING AND COMPENSATION OF GHOSTING IN
P3.5: APPLICATION OF THE UPRE METHOD TO OPTIMAL PARAMETER
P4: IMAGE ANALYSIS FOR CODING
P4.1: BITSTREAM-BASED OVERLAP ANALYSIS FOR MULTI-VIEW93 DISTRIBUTED VIDEO CODING Charles Creusere, Ivan Mecimore, NMSU, United States
P4.2: DYNAMIC REFERENCE FRAME SELECTION FOR IMPROVED97 MOTION ESTIMATION TIME IN H.264/AVC Insu Park, David Capson, McMaster University, Canada
P4.3: AN EFFICIENT AND FAST BLOCK SIZE DECISION EXPLOITING
Sungmin Kim, Takgi Lee, Kidong Chung, Pusan National University, Republic of Korea
P4.4: A PARALLEL HARDWARE IMPLEMENTATION FOR MOTION
L3: BIOMEDICAL IMAGE ANALYSIS I
L3.1: GRAPH CUTS SEGMENTATION WITH GEOMETRIC SHAPE PRIORS
L3.2: AN INITIAL APPROACH TO SEGMENTATION AND ANALYSIS OF
Samantha Richerson, Milwaukee School of Engineering, United States; A.P. Condurache, University of Lubeck, Germany; Jorn Lohmeyer, University Hospital of Schleswig-Holstein, Germany; Katherine Schultz, Paige Ganske, Milwaukee School of Engineering, United States
L3.3: AUTOMATED 3-D SEGMENTATION OF INTERNAL HEMOGLOBIN IN
L3.4: IMAGE SEGMENTATION FOR DETECTION OF SOFT PLAQUES IN

L3.5: A METHOD TO ANALYZE CORRELATIONS BETWEEN MULTIPLE125
BRAIN IMAGING TASKS TO CHARACTERIZE SCHIZOPHRENIA Andrew Michael, 1) CIS, Rochester Ins. of Tech 2) MIND Research Network, Albuquerque, United States; Jill Fries, MIND Research Network, Albuquerque, United States; Stefi Baum, CIS, Rochester Ins. of Technology, United States; Beng Ho, Nancy Andreasen, Dept. of Psychiatry, University of Iowa, United States; Vince Calhoun, 1) MIND Research Network 2) ECE, University of New Mexico, United States
L3.6: AUTOMATED REGION OF INTEREST DETECTION OF SPICULATED129
MASSES ON DIGITAL MAMMOGRAMS Rana Jahanbin, The University of Texas Department of Biomedical Engineering, Austin, TX, USA, United States; Mehul P. Sampat, Center for Neurological Imaging, Brigham and Women's Hospital, Boston, MA, USA, United States; Gautam S. Muralidhar, The University of Texas Department of Biomedical Engineering, Austin, TX, USA, United States; Gary J. Whitman, The University of Texas M. D. Anderson Cancer Center, Houston, TX, USA, United States; Alan C. Bovik, Department of Electrical and Computer Engineering, The University of Texas at Austin, TX, USA, United States; Mia K. Markey, The University of Texas Department of Biomedical Engineering, Austin, TX, USA, United States
L3.7: A DEFORMABLE STATISTICAL SHAPE MODEL APPLIED TO
L4: ANALYSIS FOR VISION I
L4.1: PREDICTING THE PERCEIVED INTEREST OF OBJECT IN IMAGES
L4.2: SPECTRAL IMAGE ACQUISITION AND ANALYSIS OF
L4.3: NON-PARAMETRIC ESTIMATION OF MIXTURE MODEL ORDER145
Enrique Corona, Brian Nutter, Sunanda Mitra, Texas Tech University, United States
L4.4: 3D CLASSIFICATION OF THROUGH-THE-WALL RADAR IMAGES
L5: REMOTE SENSING
L5.1: PASSIVE POLARIMETRIC IMAGERY BASED MATERIAL
L5.2: AERIAL POSE DETECTION OF 3-D OBJECTS USING

L5.3: IMAGE MOSAICKING FROM UNCOOLED THERMAL IR VIDEO
L5.4: SUBPIXEL ANOMALOUS CHANGE DETECTION IN REMOTE
L5.5: A FRAMEWORK FOR GENERATING HIGH QUALITY DIGITAL169 ELEVATION MODELS IN URBAN AREAS Ahmed Elaksher, Cairo Univeristy, Egypt
L6: ANALYSIS FOR VISION II
L6.1: CONTOUR LINE RECOGNITION & EXTRACTION FROM SCANNED
L6.2: REAL-TIME FACE-BASED AUTO-FOCUS FOR DIGITAL STILL AND
L6.3: INTEGRAL IMAGE OPTIMIZATIONS FOR EMBEDDED VISION
L6.4: VIDEO ANALYSIS USING REGION VALIDATION
L6.5: STEREO-BASED FREE SPACE COMPUTATION IN COMPLEX
L7: BIOMEDICAL IMAGE ANALYSIS II
L7.1: DEVELOPMENT OF A DUAL DETECTOR PHASE X-RAY IMAGING
L7.2: ANALYSIS TOOL FOR DIGITIZED CERVICAL AND LUMBAR

L7.3: DOES THE BRAIN REST?: AN INDEPENDENT COMPONENT	201
Vince Calhoun, The MIND Institute/Univ. of New Mexico, United States	
L7.4: REGION-BASED FEATURE EXTRACTION USING TRUS IMAGES	05
L7.5: VOXEL-BASED MORPHOMETRIC STUDY OF BRAIN REGIONS	09