Monday, May 31, 2010

8:00-8:30 Conference Opening (AI/GI/CRV wide)

8:30-10:00 Session 1

Probabilistic Framework for Feature-Point Matching
Ron Tal and Minas E. Spetsakis

A PCA-Based Binning Approach for Matching to Large SIFT Databases
Geoffrey Treen and Anthony Whitehead

Matching Maximally Stable Extremal Regions using edge information and the chamfer distance function
Pantelis Elinas

Quasi-Random Scale Space Approach to Robust Keypoint Extraction in High-Noise Environments
Alexander Wong, Akshaya Mishra, David A. Clausi, and Paul Fieguth

10:00-10:30 Morning break (AI/GI/CRV wide)

10:30-12:00 Session 2

Bayesian Identity Clustering
Simon J.D. Prince, James Elder

Automated Classification of Operational SAR Sea Ice Images
S. Ochilov and D. A. Clausi

Efficient Augmentation of the EKF Structure from Motion with Frame-to-Frame Features
Adel Fakih, John Zelek

Real-Time Virtual Viewpoint Generation on the GPU for Scene Navigation
Shanat Kolhatkar and Robert Laganière

12:00-1:30 Lunch

1:30-3:00 CRV Poster Session I

A Simple but Effective Approach to Video Copy Detection
CRV2010 G. Roth, R. Laganiere

Texture Classification Using Compressed Sensing
Li Liu and Paul Fieguth

The effect of colour space on image sharpening algorithms
Michael Wirth, Dennis Nikitenko

Automated Filter Parameter Selection using Measures of ‘Noiseness’
Ajit Rajwade, Anand Rangarajan, Arunava Banerjee

Organ Recognition using Gabor Filters
Shiva Zaboli, Arash Tabibiazar, Paul Fieguth

Multispectral Face Recognition in Texture Space
Abdelhakim Bendada, Moulay A. Akhloufi

Curious George: An Integrated Visual Search Platform
David Meger, Marius Maja, Scott Helmer, Ankur Gupta, Catherine Gamroth, Tomas Hoffman, Matthew Baumann, Tristram Southey, Pooyan Fazli, Walter Wohlkinger, Pooja Viswanathan, James J. Little, David G. Lowe, and James Orwell

Automatic Position Registration of Street-level Fisheye Images into Aerial Image using Line Structures and Mutual Information
Mehrnaz Zouqi, Jagath Samarabandu, Yanbo Zhou

Extracting Outlined Planar Clusters of Street Facades from 3D Point Clouds
Karim Hammoudi, Fadi Dornaika, Bahman Soheilian, Nicolas Paparoditis

Matching Images Using Invariant Level-line Primitives Under Projective Transformation
Yasser Almehio, Samia Bouchafa

Semi-Automatic Prediction of Landmarks on Human Models in Varying Poses
Stefanie Wuhrer, Zouhour Ben Azouz, Chang Shu

Probabilistic Tracking of Pedestrian Movements via In-Floor Force Sensing
Rishi Rajalingham, Yon Visell, Jeremy R. Cooperstock

Human Tracking Using Spatialized Multi-level Histogram and Mean Shift
Amir-Hossein Shabani, Mohammad Hossein Ghaeminia, Shahryar Baradaran Shokouhi

3:00-4:00  **CRV Invited Talk I**: Andrew Davison

4:00-4:30  Afternoon break (AI/GI/CRV wide)

4:30-5:30  **Session 3**

Selecting and Commanding Individual Robots in a Multi-Robot System
Alex Couture-Beil, Richard T. Vaughan, and Greg Mori

Flame region detection based on histogram backprojection
Michael Wirth, Ryan Zaremba

Water Flow Detection in a Handwashing Task
Babak Taati, Jasper Snoek, David Giesbrecht, Alex Mihailidis
Tuesday, June 1, 2010

9:00-10:00  **CRV Invited Talk II**: Nick Roy

10:00-10:30  Morning break (AI/GI/CRV wide)

10:30-12:00  **Session 4**

- **Binocular Camera Calibration Using Rectification Error**
  Derek Bradley, Wolfgang Heidrich

- **Rough Terrain Reconstruction for Rover Motion Planning**
  David Gingras, Tom Lamarche, Jean-Luc Bedwani, Erick Dupuis

- **A Comparison of the EKF, SPKF, and the Bayes Filter for Landmark-Based Localization**
  Chi Hay Tong and Timothy D. Barfoot

- **Multi-Layer Atlas System for Map Management**
  Jean-Luc Bedwani, Ioannis Rekleitis, Francois Michaud, Erick Dupuis

12:00-1:00  Lunch

1:00-2:30  **CRV Poster Session II**

A computer vision system for analyzing and interpreting the cephalo-ocular behavior of drivers in a simulated driving context
Samy Metari, Florent Prel, Thierry Moszkowicz, Denis Laurendeau, Normand Teasdale, Steven Beauchemin

An Accurate Image Processing Algorithm for Detecting FISH Probe Locations Relative to Chromosome Landmarks on DAPI Stained Metaphase Chromosome Images
Akila Subasinghe A., Jagath Samarabandu, Joan Knoll, Wahab Khan, Peter Rogan

Thermal imaging as a way to classify cognitive workload
John Stemberger, Robert S. Allison, Thomas Schnell

Retina Vessel Detection Using Fuzzy Ant Colony Algorithm
Sina Hooshyar and Rasoul Khayati

Robot Localization in Rough Terrains: Performance Evaluation
Ehsan Fazl-Ersi, John K. Tsotsos

The Sentinel Problem for a Multi-hop Sensor Network
Dimitri Marinakis, Sue Whitesides

Telepresence across the Ocean
Ioannis Rekleitis, Gregory Dudek, Yasmina Schoueri, Philippe Giguere, and Junaed Sattar

Fall in! Sorting a group of robots with a continuous controller.
Yaroslav Litus, Richard T. Vaughan

Deformable Object Segmentation and Contour Tracking in Image Sequences Using Unsupervised Networks
Ana-Maria Cretu, Emil M. Petriu, Pierre Payeur and Fouad F. Khalil
2:30-4:00  Session 5

Unsupervised Feature Selection and Learning for Image segmentation
Mohand Said Allili, Djemel Ziou, Nizar Bouguila, Sabri Boutemedjet

Decoupled Active Surface for Volumetric Image Segmentation
Akshaya Mishra, Paul Fieguth and David A. Clausi

A Bayesian Information Flow Approach to Image Segmentation
Akshaya Mishra, Alexander Wong, David A. Clausi, and Paul Fieguth

Global Context Descriptors for SURF and MSER Feature Descriptors
Gail Carmichael, Robert Laganière, Prosenjit Bose

4:00-4:20  Afternoon break (AI/GI/CRV wide)

4:00-5:00  CIPPRS Meeting

6:00-7:00  Award Reception

7:00-9:00  Award Banquet
Wednesday, June 2, 2010

8:30-9:30  **CRV Invited Talk III**: Greg Mori

9:30-10:00  Morning break (AI/GI/CRV wide)

10:00-11:30  **Session 6**

**Construction of a 3D Model of Real-world Object Using Range Intensity Images**  
Masato Kusanagi, Kenji Terabayashi, Kazunori Umeda, Guy Godin, Marc Rioux

**Automated Place Classification using Object Detection**  
Pooja Viswanathan, Tristram Southey, James Little, Alan Mackworth

**Window-Based Range Flow with an Isometry Constraint**  
Ting Yu and Jochen Lang

**Mammogram Image Superresolution Based on Statistical Moment Analysis**  
Alexander Wong, Akshaya Mishra, David A. Clausi, and Paul Fieguth

12:00-2:00  Lunch

2:00-2:45  **Session 7**

**Max-Margin Offline Pedestrian Tracking with Multiple Cues**  
Bahman Yari Saeed Khanloo, Ferdinand Stefanus, Mani Ranjbar, Ze-Nian Li, Nicolas Saunier,  
Tarek Sayed, and Greg Mori

**Object inter-camera tracking with non-overlapping views: a new dynamic approach**  
Trevor Montcalm, Bubaker Boufama

2:45-3:00  Short break

3:00-4:00  **Session 8**

**Human Action Recognition using Salient Opponent-Based Motion Features**  
Amir-Hossein Shabani, John S. Zelek, David A. Clausi

**Human Upper Body Pose Recognition Using Adaboost Template For Natural Human Robot Interaction**  
Liyuan Li, Kah Eng Hoe, Xinguo Yu, Li Dong, Xinqi Chu

**Fast FEM-based non-rigid registration**  
Karteek Popuri, Dana Cobzas, Martin Jagersand

4:00-6:00  GRAND Reception