

**Monday, May 31, 2010**

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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. Laganière*

[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 'Noisiness'](#)

*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](#)

CRV'2010 Program

*David Meger, Marius Muja, 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 Ghaemini, 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**

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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**

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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