Sunday, 17 February 2008

The workshop activities start with a pre-workshop boat trip with racing yacht Iolanthe II (max: 23 persons; free, but experienced sailors are preferred; register for boat tour with John Morris (CITR) - on a first come first served basis) to one of the islands of the Hauraki golf. (3 January 08: A few seats are still available.)

18.00 - 20.00: Registration and welcome.
School of Engineering Building, 12th Floor
20 Symonds Street
The University of Auckland, City campus

Monday, 18 February 2008
Lecture theatre SLT1, ground floor just in the entrance at 38 Princes St.
8.50: Opening by B. MACDONALD and U. FRANKE

Session 1: Urban Challenge
Session Chair: D. BURSCHKA (Munich, Germany)

9.00 : C. STILLER (Karlsruhe, Germany) et al.: Team AnnieWAY’s Autonomous System
9.30 : K. BERGER (Braunschweig, Germany) et al.: The area processing unit of Caroline - Finding the way through DARPA’s Urban Challenge
10.00 : J. EFFERTZ (Braunschweig, Germany): Sensor Architecture and Data Fusion for Robotic Perception in Urban Environments at the 2007 DARPA Urban Challenge
10.30 : Tea Break

Session 2: Invited Lecture
Session Chair: H. TRINH (Toyota Techn. Institute, Chicago, USA)

11.00: J. BALTES (Winnipeg, Canada): Ronaldinho’s Metal Friends - 10 Years of Robotic Soccer Competitions, with a Look to the Future

System Demos
12.00: Slide scanning and automatic pollen recognition system
R. M. HODGSON (Massey University)
Game playing robots
D. BAILEY (Massey University)
12.30: Lunch break
Session 3: Poster Session (brief oral presentations)
Session Chair: J. MORRIS (Auckland, New Zealand)

14.00 : S. GUAN, R. KLETTE (Auckland, New Zealand): Belief-Propagation on Edge Images for Stereo Analysis of Image Sequences
14.03 : M. TERAUCHI (Hiroshima, Japan), Y. TANAKA, T. TSUJI: Real-Time Hand and Eye Coordination for Flexible Impedance Control of Robot Manipulator
14.06 : A. BOERNER (Berlin, Germany), H. HIRSCHMUELLER, K. SCHEIBE, M. SUPPA: MFC-A Modular Line Camera for 3D World Modelling
14.09 : S. WILDERMANN (Erlangen, Germany), J. TEICH: 3D Person Tracking with a Color-Based Particle
14.12 : A. BOERNER (Berlin, Germany), H. HIRSCHMUELLER, K. SCHEIBE, M. SUPPA: MFC-A Modular Line Camera for 3D World Modelling
14.15 : D. HEGAZY (Jena, Germany), J. DENZLER: Generic Object Recognition using Boosted Combined Features
14.21 : J. MARQUEZ (Mexico, Mexico), W. RAMIREZ, L. BOYER, P. DELMAS: Robust Ellipsoidal Model Fitting of Human Heads
14.27 : H. CHEN (Shandong, China), H. YU: A New Camera Calibration Algorithm Based On Rotating Object
14.33 : M. SAGREBIN (Duisburg, Germany), J. PAULI, J. HERWIG: Behavior Based Robot Localization Using Stereo Vision
14.36 : E. MAIR, D. BURSCHKA (Garching, Germany): Direct Pose Estimation with a Monocular Camera

Session 4: Stereo Vision I
Session Chair: R. REULKE (Humboldt University, Berlin, Germany)

15.00 : B. MCKINNON, J. BALTES (Winnipeg, Canada): Fast Line Segment Extraction for Semi-Dense Stereo Matching
15.30 : U. FRANKE (Sindelfingen, Germany), S. GEHRIG, H. BADINO, C. RABE: Towards Optimal Stereo Analysis of Image Sequences
16.00 : Tea Break

Session 5: Stereo Vision II
Session Chair: K. STOL (Auckland, New Zealand)
Tuesday, 19 February 2008

Session 6: Robot Vision I

Session Chair: C. STILLER (Karlsruhe, Germany)

9.00: C. GEBKEN, G. SOMMER (Kiel, Germany):
Stochastically Optimal Epipole Estimation in Omnidirectional Images with Geometric Algebra

9.30: B. ROSENHAHN (Saarbrücken, Germany), T. BROX, D. CREMERS, H.-P. SEIDEL:
Modeling and Tracking Constrained Mechanical Systems

10.00: D. ALDAVERT (Bellaterra, Spain), R. TOLEDO:
Stereo Vision Local Map Alignment for Robot Environment Mapping

10.30: Tea break

Session 7: Robot Vision II

Session Chair: H. CHEN (Shandong University, PR of China)

11.00: I.Y.-H. CHEN, B. MACDONALD (Auckland, New Zealand), B. WUENSCH:
Markerless Augmented Reality for Robotic Helicopter Applications

11.30: M. WIMMER, B MACDONALD (Auckland, New Zealand), D. JAYAMUNI A. YADAV:
Facial Expression Recognition for Human-robot Interaction - A Prototype

12.00: Lunch break

13.00: Visit of Robotics Labs at ECE Department
        B. MACDONALD (Auckland, New Zealand)

Bus excursion, followed by dinner at Markovina vineyard

14.00: Bus starts at 38 Princes Street
Wednesday, 20 February 2008

Session 8: Computer Vision
Session Chair: A. BAIS (NWFP University, Pakistan)

9.30: H. ACKERMANN (Okayama, Japan), K. KANATANI:
Iterative Low Complexity Factorization for Projective Reconstruction

10.00: S. KAMIYA, Y. KANAZAWA (Toyohashi, Japan):
Accurate Image Matching in Scenes Including Repetitive Patterns

10.30: Tea break

Session 9: Visual Inspection
Session Chair: K. KANATANI (Okayama, Japan)

11.00: F. LI, R. KLETTE (Auckland, New Zealand):
An Approximate Algorithm for Solving the Watchman Route Problem

11.30: Y. LIU, K. LIN, Y. CHEN (Hsinchu, Taiwan):
Bird's-Eye View Vision System for Vehicle Surrounding Monitoring

12.00: B. CYGANIEK (Krakow, Poland):
Road-Signs Recognition System for Intelligent Vehicles

12.30: R. REULKE (Berlin, Germany), S. BAUER, F. MEYSEL:
Situation Analysis and Atypical Event Detection
with Multiple Cameras and Multi-Object Tracking

13.00: Lunch Break

Session 10: Motion Analysis
Session Chair: H. BADINO (Frankfurt, Germany)

14.00: N. OHNISHI, Y. KAMEDA, A. IMIYA (Chiba, Japan), L. DORST, R. KLETTE:
Dynamic Multiresolution Optical Flow Computation

14.30: H. TRINH (Chicago, USA), D. MCALLESTER:
Particle-based Belief Propagation for Structure from Motion and
Dense Stereo Vision with Unknown Camera Constraints

15.00: Tea break

Daimler Award Session
Session Chair: U. FRANKE (Daimler, Germany)

15.30: Selection of best paper(s) and award ceremony

16.00: Closing (with drinks and nibbles)