Conference program

Tuesday 13 October

14:00 – 14:15 : Opening Ceremony

14:15 – 15:30 : Oral Session 1: Human Machine Interaction
Session chair : Kikuo Asai

85 Recognizing Gestures for Virtual and Real World Interaction
David Demirdjian, United States, Toyota Research Institute
Chenna Varri, United States, Toyota Research Institute

20 Multimodal speaker recognition in a conversation scenario
Maria Letizia Marchegiani, Italy, Dipartimento di informatica e sistemistica Sapienza Università di Roma
Fiora Pirri, Italy, Dipartimento di Informatica e Sistemistica
Matia Pizzoli, Italy, Dipartimento di informatica e sistemistica Sapienza università di Roma

39 FaceL: Facile Face Labeling
David Bolme, United States, Colorado State University
Ross Beveridge, United States Colorado State University
Bruce Draper, United States Colorado State University

15:30 – 15:50 : Coffee break

15:50 – 16:50 : Invited Talk : Learning to untangle object identity in the ventral visual stream
James J. DiCarlo, United States, McGovern Institute for Brain Research and Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology

16:50 – 17:10: Coffee break

17:10 – 18:25 : Oral Session 2 : Features, Sensors and Representations
Session chair : Monique Thonnat

27 Boosting with a Joint Feature Pool from Different Sensors
Dominik Alexander Klein, Germany, Dept. of Computer Science III, University of Bonn
Dirk Schulz, Germany, Research Establishment for Applied Science (FGAN)
Simone Frintrop, Germany, Department of Computer Science III, University of Bonn

79 A Multi-Modal Attention System for Smart Environments
B. Schauerte, Germany, TU Dortmund, Robotics Research Institute
T. Ploetz, Germany, TU Dortmund, Robotics Research Institute
G. A. Fink, Germany, TU Dortmund, Departmend of Computer Science

98 Individual Identification using Gait Sequences under different Covariate Factors
Pratheepan Yogarajah, United Kingdom, University of Ulster
Joan Condell, United Kingdom, University of Ulster
Girijesh Prasad, United Kingdom, University of Ulster

18:25 – 20:00 : Welcome Reception

Wednesday 14 October

08:30 – 09:45: Oral Session 3 : Stereo, 3d and Optical Flow
Session chair : David Demirdjian

4 A Real-Time Low-Power Stereo Vision Engine Using Semi-Global Matching
Stefan Gehrig, Germany, Daimler AG
Felix Eberli, Switzerland, SCS
Thomas Meyer, Switzerland, SCS

34 Feature-based stereo vision using smart cameras for traffic surveillance
Quentin Houben, Belgium, Université libre de Bruxelles
Jacek Czyz, Belgium, Macq electronique
Juan Carlos Tocino Diaz, Belgium, Université libre de Bruxelles
Nadine Warzée, Belgium, Université libre de Bruxelles
Olivier Debeir, Belgium, Université Libre de Bruxelles

11 Development and Long-Term Verification of Stereo Vision Sensor System for Controlling Safety at Railroad Crossing
Daisuke Hosotani, Japan, Koito Industries, Ltd. and University of Tsukuba
Ikushi Yoda, Japan, National Institute of Advanced Industrial Science and Technology (AIST) and University of Tsukuba
Katsuhiko Sakaue, Japan, National Institute of Advanced Industrial Science and Technology (AIST) and University of Tsukuba

09:45 – 10:15 : coffee break

10:15 – 10:45 : Poster Teasers

10:45 – 12:00 : Oral Session 4 : Calibration and Registration
Session chair : Stefan Gehrig

49 GPU-accelerated Nearest Neighbor Search for 3D Registration
Deyuan Qiu, China, Fraunhofer Institut IAIS, Sankt Augustin, Germany
Stefan May, France, INRIA
Andreas Nüchter, Germany, Jacobs University Bremen, Germany

17 Visual Registration Method For A Low Cost Robot
David Aldavert, Spain, Computer Vision Center
Arnau Ramisa, Spain, IIIA-CSIC
Ricardo Toledo, Spain, Computer Vision Center
Ramón López de Mantaras, Spain, IIIA - CSIC

54 Automatic Classification of Image Registration Problems
Steve Oldridge, Canada, University of British Columbia
Gregor Miller, Canada, University of British Columbia
Sidney Fels, Canada, University of British Columbia

12:00 – 13:30 : Lunch

13:30 – 14:45 : Oral session 5 : Mobile and Autonomous Systems
Session chair : Markus Vincze

100 Learning Objects and Grasp Affordances through Autonomous Exploration
Dirk Kraft, Denmark, Maersk Institute, University of Southern Denmark
Renaud Detry, Belgium, University of Liege
Nicolas Pugeault, Denmark, University of Edinburgh
Emre Baseski, Denmark, University of Southern Denmark
Justus Piater, Belgium, Université de Liège
Norbert Krüger, Denmark, The Maersk Mc-Kinney Moller Institute, University of Southern Denmark

35 Integration of Visual Cues for Robotic Grasping
Niklas Bergström, Sweden, Centre for Autonomous Systems
Jeannette Bohg, Sweden, CAS
Danica Kragic, Sweden, Centre for Autonomous Systems

14 A Hierarchical System Integration Approach with Application to Visual Scene Exploration for Driver Assistance
Benjamin Dittes, Germany, Honda Research Institute Europe GmbH
Martin Heracles, Germany, CoR-Lab, Universität Bielefeld
Thomas Michalke, Germany, Honda Research Institute Europe GmbH
Robert Kastne, Germany, Technische Universität Darmstadt
Alexander Gepperth, Germany, Honda Research Institute Europe GmbH
Jannik Fritsch, Germany, Honda Research Institute Europe GmbH
Christian Goerick, Germany, Honda Research Institute Europe GmbH

14:45- 16:15 : Poster Session and coffee break

9 Nonideal Iris Recognition using Level Set Approach and Coalitional Game Theory
Kaushik Roy kaush, Canada CIISE, Concordia University
Prabir Bhattacharya, Canada CIISE, Concordia University

13 A System for Probabilistic Joint 3D Head Tracking and Pose Estimation in Low-resolution, Multi-view Environments
Michael Voit, Germany, Fraunhofer Institut für Informations- und Datenverarbeitung IITB
Rainer Stiefelhagen, Germany, Universität Karlsruhe (TH)

18 Using Local Symmetry for Landmarks Selection
Gert Kootstra, Netherlands, University of Groningen
Sjoerd de Jong, Netherlands, University of Groningen
Lambert R.B. Schomaker, Netherlands, University of Groningen

28 Demand-Driven Visual Information Acquisition
Sven Rebhan, Germany, Honda Research Institute Europe
Andreas Richter, Germany, Honda Research Institute Europe
Julian Eggert, Germany, Honda Research Institute Europe GmbH

36 A Computer Vision System for Visual Grape Grading in Wine Cellars
Esteban Vazquez-Fernandez, Spain, Laboratorio Oficial de Metroloxía de Galicia (LOMG)
Angel Dacal-Nieto , Spain, Laboratorio Oficial de Metroloxia de Galicia (LOMG)
Fernando Martin, Spain, Universidade de Vigo
Arno Formella , Spain, Universidade de Vigo
Soledad Torres-Guijarro, Spain, Laboratorio Oficial de Metroloxia de Galicia (LOMG)
Higinio Gonzalez-Jorge ,Spain, Laboratorio Oficial de Metroloxia de Galicia (LOMG)

37 Robust Tracking by means of Template Adaptation with Drift Correction
Chen Zhang, Germany, Darmstadt University of Technology
Julian Eggert, Germany, Honda Research Institute Europe GmbH
Nils Einecke, Germany, Honda Research Institute Europe GmbH

38 A fast joint bioinspired algorithm for optic flow and two-dimensional disparity estimation
Manuela Chessa, Italy, University of Genoa - DIBE
Silvio P. Sabatini, Italy, University of Genoa - DIBE
Fabio Solari , Italy, University of Genoa - DIBE

41 Fast Vision-based Object Recognition Using Combined Integral Map
Tam Phuong Cao, Australia
Darrell Elton, Australia
Guang Deng, Australia

43 Saliency-Based Obstacle Detection and Ground-Plane Estimation for Off-Road Vehicles
Pedro Santana, Portugal, University of Lisbon
Magno Guedes, Portugal, New University of Lisbon
Luís Correia, Portugal, University of Lisbon
José Barata, Portugal, Universidade Nova de Lisboa

48 Relevance of interest points for eye position prediction on videos
Alain SIMAC-LEJEUNE, France, LISTIC Annecy - GIPSA Lab Grenoble
Sophie MARAT, France, Gipsa-lab
Denis PELLERIN, France, Grenoble Image Parole Signal Automatique
Patrick LAMBERT, France, LISTIC
Michèle ROMBAUT, France, Gipsa-lab
Nathalie GUYADER, France, Gipsa-lab

50 Generation of 3D City Models using Domain-Specific Information Fusion
Jens Behley, Germany, Department of Computer Science, University of Bonn
Volker Steinhage, Germany, University of Bonn

53 Performance Evaluation of Stereo Algorithms for Automotive Applications
Pascal Steingrube, Germany, Daimler AG
Stefan Gehrig, Germany, Daimler AG

57 Bio-inspired stereo vision system with silicon retina imagers
Jürgen Kogle, Austria, Austrian Research Centers GmbH – ARC
Christoph Sulzbachner, Austria, Austrian Research Centers GmbH – ARC
Wilfried Kubinger, Austria, Austrian Research Centers GmbH – ARC

65 Real-time traversable surface detection by colour space fusion and temporal analysis
Ioannis Katramados, United Kingdom, Cranfield University
Toby Breckon, United Kingdom, Cranfield University

74 Stable Structural Deformations
Karin Engel, Germany, Otto von Guericke University Magdeburg
Klaus Toennies, Germany, Otto-von-Guericke-Universität

77 Automatic Assessment of Eye Blinking Patterns through Statistical Shape Models
Federico Sukno, Spain, Research Group for Computational Imaging and Simulation Technlogies in Biomedine (CISTIB), Networking Center on Biomedical Research (CIBER-BBN)
Sri-Kaushik Pavani, Spai,n Research Group for Computational Imaging and Simulation Technlogies in Biomedine (CISTIB), Univerisitat Pompeu Fabra
Constantine Butakoff, Spain, Research Group for Computational Imaging and Simulation Technlogies in Biomedine (CISTIB), Universitat Pompeu Fabra
Alejandro Frangi, Spain, Research Group for Computational Imaging and Simulation Technlogies in Biomedine (CISTIB), Univerisitat Pompeu Fabra

87 A Multiple Hypothesis Approach for a Ball Tracking System
Oliver Birbach, Germany, DFKI Bremen
Udo Frese, Germany, Universität Bremen

90 Inspection of Stamped Sheet Metal using a Multiresolution Image Fusion Technique
Eusebio de la Fuente, Spain, University of Valladolid
Félix Miguel Trespaderne, Spain, University of Valladolid

91 Who's Counting?: Real-Time Blackjack Monitoring for Card Counting Detection
Krists Zutis, United Kingdom, University of Dundee
jesse hoey, United Kingdom, University of Dundee

92 Open-Set Face Recognition-based Visitor Interface System
HAZIM KEMAL EKENE, Germany, InterACT Research, Universit t Karlsruhe
Lorant Toth, Germany, Universität Karlsruhe (TH)
Rainer Stiefelhagen, Germany, Universität Karlsruhe (TH)

94 Practical Calibration of a Pan-Tilt-Zoom-Focus Camera for Augmented Reality
Juhyun Oh, Republic of Korea, Korean Broadcasting System
Seungjin Nam, Republic of Korea, Korean Broadcasting System
Kwanghoon Sohn, Republic of Korea, Yonsei University

96 Incremental Video Event Learning
Marcos Zúñiga, Chile, Universidad Técnica Federico Santa María
Francois Bremond, France, PULSAR, INRIA, Sophia Antpolis, France
Monique Thonnat, France, PULSAR, INRIA, Sophia Antpolis, France

97 Cascade Classifier Using Divided CoHOG Features for Rapid Pedestrian Detection
Masayuki Hiromoto, Japan, Dept. of Communications and Computer Engineering, Kyoto University
Ryusuke Miyamoto, Japan, Nara Institute of Science and Technology

99 Combining color, depth, and motion for video segmentation
Jérôme Leens, Belgium, University of Liège
Sébastien Piérard, Belgium, University of Liège
Olivier Barnich, Belgium, University of Liege
Marc Van Droogenbroeck, Belgium, University of Liège
Jean-Marc Wagne, Belgium, Haute Ecole de la Province de Liege

16:15 – 17:30 : Oral session 6 : Evaluation, Studies and Applications
Session chair : Stephen McKenna

25 White-Box Evaluation of Computer Vision Algorithms through Explicit Decision-Making
Richard Zanibbi, United States, Dept. Computer Science, Rochester Institute of Technology
Dorothea Blostein, Canada, Queen's University
James R. Cordy, Canada, Queen's University

63 Evaluating the suitability of feature detectors for automatic image orientation systems
Timo Dickscheid, Germany, Bonn University
Wolfgang Förstne, Germany, Bonn University

52 Interest point stability prediction
Thomson Comer, United States, Colorado State University
Bruce Draper, United States, Colorado State University

18:15 : Departure for guided city tour and conference banquet (Mercure hotel, Boulevard de la Sauvenière 100, 4000 Liège)

Thursday 15 October

09:00 – 10:00 : Invited talk : Computer Vision at the Web Scale
Jay Yagnik (Head of Computer Vision and Audio Understanding Research, Google Inc., USA)

10:00 – 10:30: coffee break

10:30 – 11:45 : Oral Session 7 : Learning, Recognition and Adaption
Session chair : Bruce Draper

67 Increasing the Robustness of 2D Active Appearance Models for Real-World Applications
Ronny Stricke, Germany, TU Ilmenau
Christian Martin, Germany, Ilmenau University of Technology
Horst-Michael Gross, Germany, Ilmenau University of Technology

55 Learning Query-Dependent Distance Metrics for Interactive Image Retrieval
Junwei Han, United Kingdom, University of Dundee
Stephen McKenna, United Kingdom, University of Dundee
Ruixuan Wang, United Kingdom, University of Dundee

75 Consistent Interpretation of Image Sequences to Improve Object Models on the fly
Johann Prankl, Austria, Vienna University of Technology
Martin Antenreiter, Austria, University of Leoben
Peter Auer, Austria, University of Leoben
Markus Vincze, Austria, Vienna University of Technology

11:45 – 12:00 : closing ceremony

12:00 – 13:00 : lunch