Table of Contents – Part I

First International Workshop on Parts and Attributes

Attribute Learning in Large-Scale Datasets 1
Olga Russakovsky and Fei-Fei Li

Combining Language Sources and Robust Semantic Relatedness for Attribute-Based Knowledge Transfer 15
Marcus Rohrbach, Michael Stark, György Szarvas, and Bernt Schiele

Sparse Representations and Distance Learning for Attribute Based Category Recognition 29
Grigorios Tsagkatakis and Andreas Savakis

Semi-supervised Learning of Facial Attributes in Video 43
Neva Cherniavsky, Ivan Laptev, Josef Sivic, and Andrew Zisserman

Objects as Attributes for Scene Classification 57
Li-Jia Li, Hao Su, Yongwhan Lim, and Fei-Fei Li

A Generic Model to Compose Vision Modules for Holistic Scene Understanding 70
Congcong Li, Adarsh Kowdle, Ashutosh Saxena, and Tsuhan Chen

Third Workshop on Human Motion Understanding, Modeling, Capture and Animation

Automatic Facial Landmark Tracking in Video Sequences Using Kalman Filter Assisted Active Shape Models 86
Utsav Prabhu, Keshav Seshadri, and Marios Savvides

Tracking in Action Space 100
Dennis L. Herzog and Volker Krüger

A Tree-Based Approach to Integrated Action Localization, Recognition and Segmentation 114
Zhuolin Jiang, Zhe Lin, and Larry S. Davis

A Fast Method for Tracking People with Multiple Cameras 128
Alparslan Yildiz and Yusuf Sinan Akgul

Analyzing and Evaluating Markerless Motion Tracking Using Inertial Sensors 139
Andreas Baak, Thomas Helten, Meinard Müller, Gerard Pons-Moll, Bodo Rosenhahn, and Hans-Peter Seidel

Bibliografische Informationen
http://d-nb.info/102841840X

digitalisiert durch DEUTSCHE NATIONAL BIBLIOTHEK

A SURF-Based Spatio-Temporal Feature for Feature-Fusion-Based Action Recognition 153
Akitsugu Noguchi and Keiji Yanai

Middle-Level Representation for Human Activities Recognition: The Role of Spatio-Temporal Relationships 168
Fei Yuan, Véronique Prinet, and Junsong Yuan

International Workshop on Sign, Gesture and Activity

Retrieving Actions in Group Contexts 181
Tian Lan, Yang Wang, Greg Mori, and Stephen N. Robinovitch

Hough Forest-Based Facial Expression Recognition from Video Sequences 195
Gabriele Fanelli, Angela Yao, Pierre-Luc Noel, Juergen Gall, and Luc Van Gool

Spatiotemporal Features for Effective Facial Expression Recognition 207
Hatice Çınar Akakın and Bülent Sankur

Human Focused Action Localization in Video 219
Alexander Kläser, Marcin Marszałek, Cordelia Schmid, and Andrew Zisserman

Head Tracking and Hand Segmentation during Hand over Face Occlusion in Sign Language 234
Matilde Gonzalez, Christophe Collet, and Rémi Dubot

Fusion of Human Posture Features for Continuous Action Recognition 244
Khai Tran, Ioannis A. Kakadiaris, and Shishir K. Shah

Hand Tracking and Affine Shape-Appearance Handshape Sub-units in Continuous Sign Language Recognition 258
Anastasios Roussos, Stavros Theodorakis, Vassilis Pitsikalis, and Petros Maragos

Hand Modeling and Tracking for Video-Based Sign Language Recognition by Robust Principal Component Analysis 273
Wei Du and Justus Piater

Tracking Benchmark Databases for Video-Based Sign Language Recognition 286
Philippe Dreuw, Jens Forster, and Hermann Ney

Detecting Regions from Single Scale Edges 298
Konstantinos Rapantzikos, Yannis Avrithis, and Stefanos Kollias

Generalised Pose Estimation Using Depth 312
Simon Hadfield and Richard Bowden

Invited Talk: Coupling Deformable Models and Learning Methods for Nonverbal Behavior Analysis: Applications to Deception, Multi-cultural Studies and ASL (Extended Abstract) 326
Dimitris Metaxas

A Real-Time System for Head Tracking and Pose Estimation 329
Zengyin Zhang, Minyoung Kim, Fernando de la Torre, and Wende Zhang

A System for Large Vocabulary Sign Search 342
Haijing Wang, Alexandra Stefan, Sajjad Moradi, Vassilis Athitsos, Carol Neidle, and Farhad Kamangar

Author Index 355

Table of Contents – Part II

Workshop on Color and Reflectance in Imaging and Computer Vision

Estimating Shadows with the Bright Channel Cue 1
Alexandros Panagopoulos, Chaohui Wang, Dimitris Samaras, and Nikos Paragios

Color-Constant Information Embedding 13
Fan Wang and Roberto Manduchi

Bi-affinity Filter: A Bilateral Type Filter for Color Images 27
Mithun Das Gupta and Jing Xiao

Photometric Color Calibration of the Joint Monitor-Camera Response Function 41
Tobias Elbrandt and Jörn Ostermann

Polyakov Action Minimization for Efficient Color Image Processing 50
Guy Rosman, Xue-Cheng Tai, Lorina Dascal, and Ron Kimmel

Color Invariant SURF in Discriminative Object Tracking 62
Dung Manh Chu and Arnold W.M. Smeulders

The Narrow-Band Assumption in Log-Chromaticity Space 76
Eva Eibenberger and Elli Angelopoulou

Is Light Blue (*azzurro*) Color Name Universal in the Italian Language? 90
Giulia Paggetti and Gloria Menegaz

Tone Correction with Dynamic Objects for Seamless Image Mosaic 104
Yong-Ho Shin, Min-Gyu Park, Young-Sun Jeon, Young-Su Moon, Shi-Hwa Lee, and Kuk-Jin Yoon

Workshop on Media Retargeting

Saliency Maps of High Dynamic Range Images 118
Roland Brémond, Josselin Petit, and Jean-Philippe Tarel

Visibility Maps for Improving Seam Carving 131
Alex Mansfield, Peter Gehler, Luc Van Gool, and Carsten Rother

Feedback Retargeting 145
Eitam Kav-Venaki and Shmuel Peleg

How to Measure the Relevance of a Retargeting Approach? 156
Christel Chamaret, Olivier Le Meur, Philippe Guillotel, and Jean-Claude Chevet

Workshop on Reconstruction and Modeling of Large-Scale 3D Virtual Environments

3D Modelling of Static Environments Using Multiple Spherical Stereo 169
Hansung Kim and Adrian Hilton

Hallucination-Free Multi-View Stereo 184
Michal Jancosek and Tomas Pajdla

Removing the Example from Example-Based Photometric Stereo 197
Jens Ackermann, Martin Ritz, André Stork, and Michael Goesele

iModel: Interactive Co-segmentation for Object of Interest 3D Modeling 211
Adarsh Kowdle, Dhruv Batra, Wen-Chao Chen, and Tsuhan Chen

Automatic Registration of Large-Scale Multi-sensor Datasets 225
Quan Wang and Suya You

Region Graphs for Organizing Image Collections 239
Alexander Ladikos, Edmond Boyer, Nassir Navab, and Slobodan Ilic

Automatic Registration of Oblique Aerial Images with Cadastral Maps 253
Martin Habbecke and Leif Kobbelt

A Multi-stage Linear Approach to Structure from Motion 267
Sudipta N. Sinha, Drew Steedly, and Richard Szeliski

Relative Bundle Adjustment Based on Trifocal Constraints 282
Richard Steffen, Jan-Michael Frahm, and Wolfgang Förstner

Accurate Single Image Multi-modal Camera Pose Estimation 296
Christoph Bodensteiner, Marcus Hebel, and Michael Arens

An Evaluation of Two Automatic Landmark Building Discovery Algorithms for City Reconstruction 310
Tobias Weyand, Jan Hosang, and Bastian Leibe

Vanishing Point Detection by Segment Clustering on the Projective Space 324
Fernanda A. Andaló, Gabriel Taubin, and Siome Goldenstein

Workshop on Computer Vision on GPUs

Effective and Efficient Image Copy Detection Based on GPU 338
Hongtao Xie, Ke Gao, Yongdong Zhang, Jintao Li, Yizhi Liu, and Huamin Ren

Really Quick Shift: Image Segmentation on a GPU 350
Brian Fulkerson and Stefano Soatto

GPU Accelerated Likelihoods for Stereo-Based Articulated Tracking 359
Rune Møllegaard Friborg, Søren Hauberg, and Kenny Erleben

A Highly Efficient GPU Implementation for Variational Optic Flow Based on the Euler-Lagrange Framework 372
Pascal Gwosdek, Henning Zimmer, Sven Grewenig, Andrés Bruhn, and Joachim Weickert

From Multiple Views to Textured 3D Meshes: A GPU-Powered Approach 384
K. Tzevanidis, X. Zabulis, T. Sarmis, P. Koutlemanis, N. Kyriazis, and A. Argyros

Comparison of Dense Stereo Using CUDA 398
Ke Zhu, Matthias Butenuth, and Pablo d'Angelo

Energy-Aware Real-Time Face Recognition System on Mobile CPU-GPU Platform 411
Yi-Chu Wang, Bryan Donyanavard, and Kwang-Ting (Tim) Cheng

Practical Time Bundle Adjustment for 3D Reconstruction on the GPU 423
Siddharth Choudhary, Shubham Gupta, and P.J. Narayanan

Accelerating Visual Categorization with the GPU 436
Koen E.A. van de Sande, Theo Gevers, and Cees G.M. Snoek

Parallel Generalized Thresholding Scheme for Live Dense Geometry from a Handheld Camera 450
Jan Stühmer, Stefan Gumhold, and Daniel Cremers

Fast Organization of Large Photo Collections Using CUDA 463
Tim Johnson, Pierre Fite-Georgel, Rahul Raguram, and Jan-Michael Frahm

Author Index 477