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Computer Vision – ACCV 2010

10th Asian Conference on Computer Vision
Queenstown, New Zealand, November 8-12, 2010
Revised Selected Papers, Part IV

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ISSN 0302-9743
ISBN 978-3-642-19281-4
DOI 10.1007/978-3-642-19282-1

e-ISSN 1611-3349
e-ISBN 978-3-642-19282-1

Springer Heidelberg Dordrecht London New York

Library of Congress Control Number: 2011921594

CR Subject Classification (1998): I.4, I.5, I.2.10, I.2.6, I.3.5, F.2.2

LNCS Sublibrary: SL 6 – Image Processing, Computer Vision, Pattern Recognition, and Graphics

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Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Coverpicture: Lake Wakatipu and the The Remarkables, from 'Skyline Queenstown' where the conference dinner took place.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

The 2010 Asian Conference on Computer Vision took place in the southern hemisphere, in “The Land of the Long White Cloud” in Maori language, also known as New Zealand, in the beautiful town of Queenstown. If we try to segment the world we realize that New Zealand does not belong officially to any continent. Similarly, in computer vision we often try to define outliers while attempting to segment images, separate them to well-defined “continents” we refer to as objects. Thus, the ACCV Steering Committee consciously chose this remote and pretty island as a perfect location for ACCV2010, to host the computer vision conference of the most populated and largest continent, Asia. Here, on South Island we studied and exchanged ideas about the most recent advances in image understanding and processing sciences.

Scientists from all well-defined continents (as well as ill-defined ones) submitted high-quality papers on subjects ranging from algorithms that attempt to automatically understand the content of images, optical methods coupled with computational techniques that enhance and improve images, and capturing and analyzing the world’s geometry while preparing for higher-level image and shape understanding. Novel geometry techniques, statistical-learning methods, and modern algebraic procedures rapidly propagate their way into this fascinating field as we witness in many of the papers one can find in this collection.

For this 2010 issue of ACCV, we had to select a relatively small part of all the submissions and did our best to solve the impossible ranking problem in the process. We had three keynote speakers (Sing Bing Kang lecturing on modeling of plants and trees, Sebastian Sylwan talking about computer vision in production of visual effects, and Tim Cootes lecturing about modelling deformable object), eight workshops (Computational Photography and Esthetics, Computer Vision in Vehicle Technology, e-Heritage, Gaze Sensing and Interactions, Subspace, Video Event Categorization, Tagging and Retrieval, Visual Surveillance, and Application of Computer Vision for Mixed and Augmented Reality), and four tutorials. Three Program Chairs and 38 Area Chairs finalized the decision about the selection of 35 oral presentations and 171 posters that were voted for out of 739, so far the highest number of ACCV, submissions. During the reviewing process we made sure that each paper was reviewed by at least three reviewers, we added a rebuttal phase for the first time in ACCV, and held a three-day AC meeting in Tokyo to finalize the non-trivial acceptance decision-making process.

Our sponsors were the Asian Federation of Computer Vision Societies (AFCV), NextWindow–Touch-Screen Technology, NICTA–Australia’s Information and Communications Technology (ICT), Microsoft Research Asia, Areograph–Interactive Computer Graphics, Adept Electronic Solutions, and 4D View Solutions.

Finally, the *International Journal of Computer Vision* (IJCV) sponsored the Best Student Paper Award.

We wish to acknowledge a number of people for their invaluable help in putting this conference together. Many thanks to the Organizing Committee for their excellent logistical management, the Area Chairs for their rigorous evaluation of papers, the Program Committee members as well as external reviewers for their considerable time and effort, and the authors for their outstanding contributions.

We also wish to acknowledge the following individuals for their tremendous service: Yoshihiko Mochizuki for support in Tokyo (especially also for the Area Chair meeting), Gisela Klette, Konstantin Schauwecker, and Simon Hermann for processing the 200+ Latex submissions for these proceedings, Kaye Saunders for running the conference office at Otago University, and the volunteer students during the conference from Otago University and the *.enpeda..* group at The University of Auckland. We also thank all the colleagues listed on the following pages who contributed to this conference in their specified roles, led by Brendan McCane who took the main responsibilities.

ACCV2010 was a very enjoyable conference. We hope that the next ACCV meetings will attract even more high-quality submissions.

November 2010

Ron Kimmel
Reinhard Klette
Akihiro Sugimoto



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Context-Based Support Vector Machines for Interconnected Image Annotation
Hichem Sahbi, Xi Li.

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Fast Spectral Reflectance Recovery Using DLP Projector
Shuai Han, Imari Sato, Takahiro Okabe, Yoichi Sato

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Network Connectivity via Inference Over Curvature-Regularizing Line Graphs
Maxwell Collins, Vikas Singh, Andrew Alexander

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Image-Based 3D Modeling via Cheeger Sets
Eno Toeppe, Martin Oswald, Daniel Cremers, Carsten Rother

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