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# Pattern Recognition

5th Asian Conference, ACPR 2019  
Auckland, New Zealand, November 26–29, 2019  
Revised Selected Papers, Part I

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# Preface

Our heartiest welcome to ACPR 2019, the 5th Asian Conference on Pattern Recognition, held in Auckland, New Zealand, during 26–29 November, 2019. It is truly an honor to host our premier conference in the business capital of New Zealand; the first time that this conference has been hosted in this part of the world. Auckland is New Zealand’s largest city and most important economic region. It is host to some of the most picturesque seaside views in New Zealand as well as fantastic shopping and dining opportunities. Auckland is a true multicultural city – it has the largest Polynesian population of any city in the world as well as a significant percentage of Maori and Asian peoples. We did our best to prepare every aspect of this conference and hope that you enjoyed your stay in Auckland.

ACPR was initiated to promote the scientific exchanges and collaborations of pattern recognition researchers in the Asia-Pacific region, and it also welcomed participation from other regions of the world. The fifth ACPR followed the previous editions, ACPR 2011 in Beijing, China, ACPR 2013 in Okinawa, Japan, ACPR 2015 in Kuala Lumpur, Malaysia, and ACPR 2017 in Nanjing, China. For ACPR 2019, there was not only a well-presented technical program, but we also invited participants to experience the diverse culture of the city of Auckland.

ACPR 2019 received 214 full submissions from 37 countries. The program chairs invited 68 Program Committee members and 54 additional reviewers to review the submitted papers. Each paper received at least two reviews, and most papers received three reviews. Based on the reviews, the Program Committee accepted a total of 125 papers, leading to an oral paper acceptance rate of 16.82% and for posters a 41.58% acceptance rate. The technical program included nine oral sessions, three poster spotlights, three poster sessions, and three keynotes. The keynote speeches were given by three internationally renowned researchers active in pattern recognition and computer vision. They are:

- Professor Andrea Cavallaro of Queen Mary University of London, UK, “Multimodal Learning for Robust and Privacy Preserving Analytics”
- Professor Yihong Wu of the Chinese Academy of Sciences, China, “Possibility to Localize a Camera without Matching”
- Professor Dacheng Tao of the University of Sydney, Australia, “AI at Dawn - Opportunities and Challenges”

A large event like ACPR depends almost exclusively on a team of volunteers who work hard on the program, infrastructure, and facilities. We would like to thank the chairs of the different committees for their help and support. Our special thanks to our workshop chairs for arranging six workshops in this iteration of ACPR. We gratefully acknowledge the financial support of our sponsors which helped to reduce costs and provide various awards including best paper awards. We would like to thank sponsorship chairs and the AUT Professional Conference Organizer for helping us with this

event. Our sincere thanks to all the researchers who have shown an interest in ACPR 2019 by sending contributed papers, workshop and tutorial proposals, and by participating. Thanks also to the Program Committee members, reviewers, and Local Organizing Committee members for their strong support and active participation. Finally, we would like to express our deep appreciation for the valuable guidance of the ACPR Advisory Board.

We hope you found your stay to be fruitful and rewarding, and that you enjoyed the exchange of technical and scientific ideas during ACPR 2019, as well as the flavor of the diverse and beautiful city of Auckland.

November 2019

Reinhard Klette  
Brendan McCane  
Umapada Pal  
Shivakumara Palaiahnakote  
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