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Jacques Blanc-Talon · Cosimo Distante Wilfried Philips · Dan Popescu Paul Scheunders (Eds.)

Advanced Concepts for Intelligent Vision Systems

17th International Conference, ACIVS 2016 Lecce, Italy, October 24–27, 2016 Proceedings



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17th International Conference, ACIVS 2016 Lecce, Italy, October 24–27, 2016 Proceedings



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Preface

These proceedings gather the selected papers of the Advanced Concepts for Intelligent Vision Systems (ACIVS) conference which was held in Lecce, Italy, during October 24–27, 2016.

This event was the 17th ACIVS. Since the first event in Germany in 1999, ACIVS has become a larger and independent scientific conference. However, the seminal distinctive governance rules have been maintained:

- To update the conference scope on a yearly basis. While keeping a technical backbone (the classic low-level image processing techniques), we have introduced topics of interest such as chronologically image and video compression, 3D, security and forensics, and evaluation methodologies, in order to fit the conference scope to our scientific community's needs. In addition, speakers usually give invited talks on hot issues.
- To remain a single-track conference in order to promote scientific exchanges among the audience.
- To grant oral presentations a duration of 25 minutes and published papers a length of 12 pages, which is significantly different from most other conferences.

The second and third items entail a complex management of the conference; in particular, the number of time slots is rather small. Although the selection between the two presentation formats is primarily determined by the need to compose a well-balanced program, papers presented during plenary and poster sessions enjoy the same importance and publication format.

The first item is strengthened by the notoriety of ACIVS, which has been growing over the years: official Springer records show a cumulated number of downloads on July 1, 2016, of more than 440,000 (for ACIVS 2005–2015 only).

The regular sessions also included a couple of invited talks by Professor Andrea Cavallaro (Queen Mary University of London, UK), Professor Thomas B. Moeslund (Aalborg University, Denmark), Professor François Brémond (Inria, France), and Professor Sebastiano Battiato (Catania University, Italy). We would like to thank all of them for enhancing the technical program with their presentations.

ACIVS attracted submissions from many different countries, mostly from Europe, but also from the rest of the world: Algeria, Australia, Austria, Brazil, Belgium, Canada, China, Cyprus, Czech Republic, Denmark, Ecuador, France, Finland, Germany, Hungary, India, Israel, Italy, Korea, Mexico, The Netherlands, Poland, Romania, Russia, Switzerland, Taiwan, Tunisia, Turkey, the Ukraine, United Arab Emirates, the UK, and the USA.

From 137 submissions, 36 were selected for oral presentation and 28 as posters. The paper submission and review procedure was carried out electronically and a minimum of three reviewers were assigned to each paper. A large and energetic Program Committee (87 people), helped by additional reviewers (95 people in total), as listed on the following pages, completed the long and demanding reviewing process. We would like to thank all

of them for their timely and high-quality reviews, achieved in quite a short time and during the summer holidays.

Also, we would like to thank our sponsors (in alphabetical order) Antwerp University, Commonwealth Scientific and Industrial Research Organization (CSIRO), Ghent University, Institute of Applied Sciences and Intelligent Systems (ISASI), and the National Research Council (CNR) of Italy for their valuable support.

Finally, we would like to thank all the participants who trusted in our ability to organize this conference for the 17th time. We hope they attended a different and stimulating scientific event and that they enjoyed the atmosphere of the ACIVS social events in the city of Lecce.

As mentioned, a conference like ACIVS would not be feasible without the concerted effort of many people and the support of various institutions. We are indebted to the local organizers Marco Leo, Pier Luigi Mazzeo, Paolo Spagnolo, Pierluigi Carcagní, and Marco Del Coco, for having smoothed all the harsh practical details of an event venue, and we hope to welcome them in the near future.

July 2016

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Acivs 2016 was organized by the University of Salento, located in Lecce, Italy.

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