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Ming Liu · Haoyao Chen
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Computer Vision Systems

11th International Conference, ICVS 2017
Shenzhen, China, July 10–13, 2017
Revised Selected Papers

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Preface

The 11th International Conference on Computer Vision Systems (ICVS 2017) aimed to gather researchers and developers from both academia and industry worldwide and to explore the state of the art and the prospects of vision systems. ICVS 2017 was held in Shenzhen, China, during July 10–13, 2017. The perspective on systems offers a unique opportunity for sharing competence in application development and for identifying application-driven research questions. This 11th ICVS event continued the momentum of the series held in Spain (1999), Canada (2001), Austria (2003), USA (2006), Germany (2007), Greece (2008), Belgium (2009), France (2011), Russia (2013), and Denmark (2015). ICVS 2017 was held for the first time in Asia and was a great event for all participants, with excellent technical and social programs in Shenzhen, China. The objective of this conference is to provide a forum and opportunity for scientists and engineers to meet and assess the latest developments in the fast-growing field of computer vision systems.

The conference received 92 submissions from 13 countries and regions and finally accepted 61 papers for presentation. Each submitted paper was reviewed by at least two reviewers and was ranked in a list according to their scores. The acceptance rate was approximately 66%. The Program Committee aimed to balance the program with papers on theoretic development and experimentation. In this volume, the papers are organized into 11 sections: (1) Visual Control, (2) Visual Navigation, (3) Visual Inspection, (4) Image Processing, (5) Human–Robot Interaction, (6) Stereo System, (7) Image Retrieval, (8) Visual Detection, (9) Visual Recognition, (10) System Design, and (11) 3D Vision/Fusion. Special thanks to Prof. Roland Siegwart, Prof. Hesheng Wang, and Prof. Yongchun Fang for their wonderful plenary and keynote talks.

We would like to express our gratitude to every individual who contributed to the success of ICVS 2017. Firstly, we thank all authors for contributing their papers to the conference. We are also indebted to the members of the community who offered their precious time and expertise in performing various roles ranging from organizational to reviewing roles. Your efforts, energy, and degree of professionalism deserve the highest commendations. Special thanks to the Program Committee members and the external reviewers for their support in evaluating the papers submitted to ICVS 2017, thereby ensuring the quality of the scientific program. We also offer thanks to all the colleagues, secretaries, volunteers, and engineers involved in the conference organization, particularly Qinghai Liao, Haoyang Ye, Lei Tai, Yuying Chen, Qing Liang, Sujie Lu, Bin Luo, Yaonan Fei, Jinshuai Liu, Kaiqing Zhou, Zhichen Pan, and Hao Deng as conference secretaries. A special thanks to the members of the Steering Committee, Prof. Henrik Christensen, Prof. James Crowley, and Prof. Bruce Draper, for their guidance and valuable advice.

The conference would not have been possible without the supporters and sponsors: Hong Kong University of Science and Technology, City University of Hong Kong

Shenzhen Research Institute, Harbin Institute of Technology (Shenzhen), TU Wien, and Shenzhen Institutes of Advanced Technology, CAS, with special thanks to IntoRobot Open Source IoT Team and Shenzhen MOLMC Technology. Finally, we thank Springer for publishing the proceedings in the LNCS series.

It is our hope that this fine collection of articles will be a valuable resource for our readers and will stimulate further research into the vibrant area of computer vision systems.

August 2017

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