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Algorithms, Pattern Recognition and Basic Technologies

**Yulin Wang
Liansheng Tan
Jianhong Zhou**
Editors

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Introduction

The organizing committee warmly welcomed our distinguished delegates and guests to the 2012 Fifth International Conference on Machine Vision – (ICMV 2012) held 20–21, October 2012 in Wuhan, China.

The ICMV 2012 is organized by Wuhan University, Huazhong Normal University, Aims University, and Sichuan University, and sponsored by Science and Engineering Institute. The conference was organized to gather members of our international community scientists so that researchers from around the world could present their cutting edge work, expanding our community's knowledge and insight into the significant challenges currently being addressed in that research. The conference program committee was quite diverse and truly international, with membership from the Americas, Europe, Asia, Africa and Oceania.

This proceeding volume contains fully refereed papers presented at the ICMV 2012. The main conference themes and tracks are Machine Vision. The main goal of these events is to provide international scientific forums for exchange of new ideas in a number of fields that interact in-depth through discussions with their peers from around the world. Both inward research, core areas of Machine Vision and outward research, and multidisciplinary, interdisciplinary, and applications were covered during these events. The conference solicited and gathered technical research submissions related to all aspects of major conference themes and tracks. All of the submitted papers in these proceedings have been peer reviewed by the reviewers drawn from the scientific committee, external reviewers, and editorial board depending on the subject matter of the paper. Reviewing and initial selection were undertaken electronically. After the rigorous peer-review process, the submitted papers were selected on the basis of originality, significance, and clarity for the purpose of the conference. The selected papers and additional late-breaking contributions to be presented as lectures made for an exciting technical program. The conference program was extremely rich, featuring high-impact presentations. The high quality of the program, which was guaranteed by the presence of an unparalleled number of internationally recognized top experts, can be assessed when reading the contents of the program. The conference was therefore a unique event, where attendees were able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other fields. The program was structured to favor interactions among attendees coming from many diverse horizons, scientifically, geographically, from academia and from industry.

We are grateful to all those who have contributed to the success of ICMV 2012. We would like to thank the program chairs, organizational staff, and the members of the program committees for their work. Thanks also goes to SPIE for their great

support on the proceedings publishing. We hope that all participants and other interested readers benefit scientifically from these proceedings and also find it stimulating in the process.

Finally, we hope that you had a unique, rewarding, and enjoyable week at ICMV 2012 in Wuhan, China.

With our warmest regards,

Yulin Wang