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# PROCEEDINGS OF SPIE

## **2016 International Conference on Robotics and Machine Vision**

**Alexander V. Bernstein  
Adrian Olaru  
Jianhong Zhou**  
*Editors*

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# Introduction

The 2016 International Conference on Robotics and Machine Vision (ICRMV) provided a forum for the most up-to-date and authoritative knowledge from both the industrial and academic worlds, sharing the newest research fruits and experiences in this exciting field. This inaugural ICRMV was held in Moscow, Russia, 14-16 September 2016.

The scientific program for the event was filled with presentations delivered by researchers and scholars from the international community, including keynote speeches and highly selective lectures.

ICRMV received a total of 35 submitted papers this year. This volume contains 21 selected papers, which were presented at the conference. It provides up-to-date, comprehensive and worldwide state-of-the art knowledge in the field of robotics and machine vision. Every paper in this collection underwent rigorous peer-review performed by the conference technical committee and international reviewers before being selected for publication. Studies presented in this volume cover the following five specific topics: computer vision and photography; image analysis and processing; robot design and control; and mechanical control and automation.

We hope that the contents of this volume will prove useful for researchers and practitioners working in the field of robotics and machine vision in their efforts to develop and apply new technologies and processes.

The organizing committee expresses sincere gratitude to all the authors who presented their works at ICRMV 2016 and contributed in this way to the success of this event. Special thanks are due to the authors from abroad for attending the conference and to the reviewers for their great support in improving the quality of the papers in this volume. The organizing committee also addresses warmest thanks to all the members of the international committee for their support and the many others for their contribution in organizing ICRMV 2016.

**Alexander V. Bernstein**  
**Adrian Olaru**  
**Jianhong Zhou**

