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Contents

- v *Authors*
- vii *Conference Committees*
- ix *Introduction*

OBJECT DETECTION AND PATTERN RECOGNITION

- 10613 02 **Relative velocity discretization for moving targets detection in FMCW SAR** [10613-12]
- 10613 03 **Binary image filtering for object detection based on Haar feature density map** [10613-23]
- 10613 04 **Posture recognition associated with lifting of heavy objects using Kinect and Adaboost** [10613-26]
- 10613 05 **A comparison between skeleton and bounding box models for falling direction recognition** [10613-28]
- 10613 06 **Illumination robust face recognition using spatial adaptive shadow compensation based on face intensity prior** [10613-4]
- 10613 07 **Parking-lines detection based on an improved Hough transform** [10613-21]

IMAGE PROCESSING AND APPLICATIONS

- 10613 08 **Feature extraction of the wafer probe marks in IC packaging** [10613-10]
- 10613 09 **Multi-focus image fusion algorithm based on non-subsampled shearlet transform and focus measure** [10613-19]
- 10613 0A **Spatial and spectral analysis of corneal epithelium injury using hyperspectral images** [10613-8]
- 10631 0B **Virtual expansion of the technical vision system for smart vehicles based on multi-agent cooperation model** [10613-13]
- 10613 0C **Acceleration of planes segmentation using normals from previous frame** [10613-6]

MODERN INFORMATION THEORY AND SIGNAL PROCESSING

- 10613 0D **Advertisement recognition using mode voting acoustic fingerprint** [10613-30]
- 10613 0E **Adaptive EMG noise reduction in ECG signals using noise level approximation** [10613-9]

- 10613 0F **A novel ECG data compression method based on adaptive Fourier decomposition** [10613-11]
- 10613 0G **Structural damage detection based on wavelet transform in strain energy signal processing** [10613-16]
- 10613 0H **Modeling and prediction of human word search behavior in interactive machine translation** [10613-15]
- 10613 0I **An 1.4 ppm/°C bandgap voltage reference with automatic curvature-compensation technique** [10613-17]
- 10613 0J **Differential effects of gender on entropy perception** [10613-3]

ROBOT DESIGN AND CONTROL ENGINEERING

- 10613 0K **Image registration algorithm for high-voltage electric power live line working robot based on binocular vision** [10613-22]
- 10613 0L **A formation control strategy with coupling weights for the multi-robot system** [10613-27]
- 10613 0M **Implementation and performance evaluation open-source controller for precision control of gripper** [10613-29]
- 10613 0N **Research on key technology of prognostic and health management for autonomous underwater vehicle** [10613-5]
- 10613 0O **Intelligent navigation and accurate positioning of an assist robot in indoor environments** [10613-31]
- 10613 0P **Structural optimization of Beach-Cleaner snatch mechanism** [10613-7]

Authors

Numbers in the index correspond to the last two digits of the seven-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first five digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Abduraimov, Azizbek, 0C
Abedi Firouzjaee, Hosein, 0D
Ahmed, Mir Soban, 09
An, Qinghao, 0K
Capi, Genci, 0O
Chen, Yuan, 07
Cheng, Pu, 02
Fahmi, Reza, 0D
Fan, Kuo-Chin, 06
Gritsenko, Igor, 0C
Gritsenko, Pavel, 0C
Ham, Un-Hyeong, 0M
Han, Chin-Chuan, 06
Hsieh, Cheng-Ta, 06
Hua, Bin, 0O
Huang, Kae-Hong, 06
Janalizadeh Choobbasti, Ali, 0D
Ji, Dou, 0H
Jiang, Shuyu, 07
Jindai, Mitsuru, 0O
Jung, Hak-Sang, 0M
Jung, Il Kyun, 0M
Kao, Chen-Ting, 08
Kamenov, Nikolay, 0B
Krapukhina, Nina, 0B
Lee, Chang-Hsing, 06
Lee, Seung-Yong, 0M
Li, Chengqi, 03, 0K
Li, Jinping, 0K
Li, Weijie, 0L
Liang, Xudong, 0L
Lim, Sun, 0M
Lin, Chia-Te, 08
Lu, Yinan, 07
M., Navaneethakrishna, 04
Ma, Bin, 0H
Marouf, Mohamed, 0E
Marshall, Stephen, 0A
Md Noor, Siti Salwa, 0A
Michael, Kaleena, 0A
Mortazavi Najafabadi, S. H. E., 0D
Narupiyakul, Lalita, 05
Ouyang, Lian-ge, 0P
Park, Young-Woo, 0M
Peng, Qian, 0P
Rama, Endri, 0O
Raut, Sayli, 04
Ren, Jinchang, 0A
Ren, Zhigang, 03, 0K
S., Ramakrishnan, 04
Safavi, Saeid, 0D
Saranovac, Lazar, 0E
Satcharoen, Kleddao, 0J
Seidakhmet, Askar, 0C
Senchenko, Roman, 0B
Shi, Yue, 0I
Srisrisawang, Nitikorn, 05
Tan, Chunyu, 0F
Tsai, Cheng-Yu, 08
Tsuru, Yosuke, 0O
Wan, Jianwei, 02
Wang, Chau-Shing, 08
Wang, Fang, 0P
Wang, Hongmei, 09
Wang, Pengbo, 0G
Wang, Siming, 0L
Wei, Qin-rui, 0P
Xin, Qin, 02
Xu, Ke, 02
Yang, Bo, 03, 0K
Ye, Na, 0H
Yu, Bao, 0H
Yu, Hongming, 0I
Yu, Xiangru, 0K
Zhang, Bo, 0I
Zhang, Liming, 0F
Zhao, Yuan-jiang, 0P
Zhou, Shui-ting, 0P
Zhou, Zekun, 0I
Zhou, Zhi, 0N
Zou, Xionggao, 07

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Introduction

The 2017 2nd 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 Kitakyushu, Japan during 15–18 September 2017.

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 36 submitted papers this year. This volume contains 24 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 four specific topics: Object Detection and Pattern Recognition; Image Processing and Application; Modern Information Theory and Signal Processing; and Robot Design and Control Engineering.

We hope that the contents of this volume 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 2017 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 2017.

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