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Zhiguo Cao
Yuehuang Wang
Chao Cai
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Contents

vii	<i>Authors</i>
ix	<i>Symposium Committee</i>
xiii	<i>Introduction</i>

PATTERN RECOGNITION AND COMPUTER VISION

10609 02	Static facial expression recognition with convolution neural networks [10609-1]
10609 03	Feature hashing for fast image retrieval [10609-2]
10609 04	Affine invariant feature extraction based on the shape of local support region [10609-3]
10609 05	Adaptive region constrained FCM algorithm for image segmentation with hierarchical superpixels [10609-5]
10609 06	A mixture model for robust registration in Kinect sensor [10609-6]
10609 07	HOG pedestrian detection based on edge symmetry and trilinear interpolation (Invited Paper) [10609-7]
10609 08	A multi-view face recognition system based on cascade face detector and improved Dlib [10609-8]
10609 09	A framework for farmland parcels extraction based on image classification [10609-9]
10609 0A	A depth enhancement strategy for kinect depth image [10609-13]
10609 0B	The method for froth floatation condition recognition based on adaptive feature weighted [10609-17]
10609 0C	Method of segmenting river from remote sensing image [10609-19]
10609 0D	Robust image matching via ORB feature and VFC for mismatch removal [10609-20]
10609 0E	Dual-threshold segmentation using Arimoto entropy based on chaotic bee colony optimization [10609-21]
10609 0F	The selection of the optimal baseline in the front-view monocular vision system [10609-22]
10609 0G	Learning deep features with adaptive triplet loss for person reidentification [10609-23]
10609 0H	A novel approach for fire recognition using hybrid features and manifold learning-based classifier [10609-24]
10609 0I	Research on three-dimensional reconstruction method based on binocular vision [10609-25]

10609 0J	Multi-modal image registration via depth information based on point set matching [10609-26]
10609 0K	Scene text detection by leveraging multi-channel information and local context [10609-32]
10609 0L	Selecting good regions to deblur via relative total variation [10609-33]
10609 0M	Single image super-resolution based on convolutional neural networks [10609-34]
10609 0N	An improved multi-paths optimization method for video stabilization [10609-35]
10609 0O	Threshold-adaptive canny operator based on cross-zero points [10609-36]
10609 0P	Supervised guiding long-short term memory for image caption generation based on object classes [10609-38]
10609 0Q	Color correction using weighted moving least squares in image mosaicking applications [10609-40]
10609 0R	A method of non-contact reading code based on computer vision [10609-41]
10609 0S	Drug-related webpages classification based on multi-modal local decision fusion [10609-42]
10609 0T	A new matching algorithm for affine point sets [10609-44]
10609 0U	Week texture objects pose estimation based on 3D model [10609-45]
10609 0V	Deep learning based hand gesture recognition in complex scenes [10609-47]
10609 0W	Fast-match on particle swarm optimization with variant system mechanism [10609-49]
10609 0X	Discriminative correlation filter tracking with occlusion detection [10609-50]
10609 0Y	A method of airborne infrared and visible image matching based on HOG feature [10609-52]
10609 0Z	A method of vehicle license plate recognition based on PCANet and compressive sensing [10609-55]
10609 10	Automated railroad reconstruction from remote sensing image based on texture filter [10609-56]
10609 11	Stereo matching algorithm based on double components model [10609-59]
10609 12	Ship detection based on rotation-invariant HOG descriptors for airborne infrared images [10609-60]
10609 13	RPBS: Rotational Projected Binary Structure for point cloud representation [10609-62]
10609 14	Environmentally adaptive crop extraction for agricultural automation using super-pixel and LAB Gaussian model [10609-63]
10609 15	Improved dense trajectories for action recognition based on random projection and Fisher vectors [10609-65]

- 10609 16 **Action recognition in depth video from RGB perspective: A knowledge transfer manner** [10609-66]
- 10609 17 **Geometry and coherence based feature matching for structure from motion** [10609-68]
- 10609 18 **Research on driver fatigue detection** [10609-69]
- 10609 19 **Smoke regions extraction based on two steps segmentation and motion detection in early fire** [10609-70]
- 10609 1A **Collaborative identification method for sea battlefield target based on deep convolutional neural networks** [10609-72]
- 10609 1B **Airplane detection in remote sensing images using convolutional neural networks** [10609-73]
- 10609 1C **Unsupervised classification of high-resolution remote-sensing images under edge constraints** [10609-74]
- 10609 1D **Modeling of biologically motivated self-learning equivalent-convolutional recurrent-multilayer neural structures (BLM_SL_EC_RMNS) for image fragments clustering and recognition (Invited Paper)** [10609-75]
- 10609 1E **Deep visual-semantic for crowded video understanding** [10609-77]
- 10609 1F **Weighted least square method for epipolar rectification in semi-calibrated image** [10609-79]
- 10609 1G **Detection of vehicle parts based on Faster R-CNN and relative position information** [10609-83]
- 10609 1H **Near infrared and visible face recognition based on decision fusion of LBP and DCT features** [10609-84]
- 10609 1I **Low, slow, small target recognition based on spatial vision network** [10609-85]
- 10609 1J **Vehicle parts detection based on Faster - RCNN with location constraints of vehicle parts feature point** [10609-86]
- 10609 1K **Hand pose estimation in depth image using CNN and random forest** [10609-87]
- 10609 1L **A fast non-local means algorithm based on integral image and reconstructed similar kernel** [10609-88]
- 10609 1M **A portable low-cost 3D point cloud acquiring method based on structure light** [10609-89]
- 10609 1N **Chinese character recognition based on Gabor feature extraction and CNN** [10609-91]
- 10609 1P **Convolutional neural network using generated data for SAR ATR with limited samples** [10609-98]

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.

Ai, Shihui, 15	Li, Cuina, 14
Bai, Honglin, 0J	Li, Hua, 0A
Cao, Zhiguo, 0P, 16, 1K	Li, Jinlin, 0I
Chen, Fubing, 0T	Li, Lei, 05
Chen, Jie, 0W	Li, Lerenhan, 0L
Chen, Jun, 16	Li, Li, 0E
Chen, Kezhou, 0G	Li, Peng, 0M
Chen, Lijuan, 19	Li, Zhiqiang, 0G
Chen, Pei, 08	Lin, Zheng, 1L
Chen, Xi, 1K	Liu, Boqi, 0O
Chen, Yang, 0U	Liu, Guodong, 1H
Chen, Youbin, 1G	Liu, Guoying, 09, 1C
Chen, Zhong, 02, 0X, 18, 1B	Liu, Qiang, 0Y
Cheng, Zhao, 1I	Liu, Wei, 1A
Cong, Longjian, 1P	Liu, Xiaomao, 0B, 0C, 0F
Deng, Chunhua, 1E	Liu, Yanxin, 0S
Dong, Zhuoli, 05	Lu, Kaixia, 10
Du, Chengcai, 0Q	Lu, Luping, 04
Fan, Zhihua, 0L	Lu, Tongwei, 07, 15, 1N
Fang, Bin, 0D, 13	Luo, Ming, 0M
Fang, Xin, 0W	Ma, Hao, 1M
Fang, Zhiwen, 16, 1K	Ma, Jie, 0D, 13
Fei, Xuan, 05	Ma, Tao, 0D, 13
Fu, Jiarun, 03	Min, Feng, 0Z
Fu, Wenxing, 0D	Mou, Xingang, 1I
Gao, Changxin, 0G, 0K, 0L, 0U, 1G, 1J	Ni, Zihan, 0V
Gao, Lei, 1P	Nikitovich, Diana V., 1D
Ge, Chao, 1M	Ou, Jianping, 0T
Ge, Wenying, 09, 1C	Ou, Kejun, 1I
Gui, Li, 1M	Ouyang, Chao, 02, 18, 1B
Guo, Bingxuan, 0R	Pan, Mingbo, 1A
Guo, Pei, 1I	Peng, Li, 06
Guo, Shengwei, 0O	Qi, Shengxiang, 0Y, 12
Han, Cheng, 0A	Qi, Xin, 1I
He, Jie, 0T	Qi, Xinyuan, 0P
He, Jing, 0X	Qian, Shengyou, 0K
Hu, Fangyu, 0D, 13	Qin, Tao, 0N
Hu, Hanping, 0A	Quan, Siwen, 0D, 13
Hu, Kai, 0J	Quan, Wei, 0A
Hu, Ruiguang, 0S	Sang, Nong, 0G, 0L, 0V, 1G, 1J
Hu, Sheng, 0H	Shen, Wei, 08
Hu, Xueying, 0H	Shi, Guangyu, 14
Huang, Xia, 1M	Song, Enmin, 1L
Jian, Wenlin, 19	Song, Xu, 09
Jiang, Yongyuan, 1N	Su, Xiaojing, 0S
Jiang, Zhengang, 0A	Sun, Bin, 0J
Jin, Liujia, 0M	Sun, Kun, 17
Krasilenko, Vladimir G., 1D	Sun, Peng, 1P
Lazarev, Alexander A., 1D	Tan, Cheng, 0V

Tan, Zhiguo, 0T	Zhang, Yong, 04
Tang, Jiajun, 0H	Zhao, Hongdan, 09
Tang, Qingyun, 0C	Zhao, Jianxin, 11
Tang, Qiuxia, 1M	Zhao, Like, 1M
Tao, Wenbing, 17	Zheng, Guangdi, 1A
Tao, Yiwei, 1F	Zheng, Hanqing, 0L
Tian, Jinwen, 0B, 0C, 0F	Zheng, Shunyi, 1M
Tian, Shaoxiong, 0U	Zhong, Sheng, 0N, 0Q
Wang, Dandan, 07	Zhou, Hongjun, 08
Wang, Jian, 0P	Zhou, Huabing, 06, 1F
Wang, Jieran, 0B	Zhou, Qing, 0Y
Wang, Jinyan, 12	Zhou, Xiao, 11
Wang, Minjun, 0I	Zhou, Zhiwei, 13
Wang, Runmin, 0K	Zhu, Guojia, 1F
Wang, Ruolin, 0G	Zhu, Rong, 0H
Wang, Xue, 0Y	Zhu, Shengguo, 06
Wang, Yongzhong, 1G	Zong, Xiaoyu, 0R
Wang, Yuehuang, 0W	Zou, Lamei, 0M
Wang, Zhihui, 0I	
Wei, Kai, 17	
Wu, Kaizhi, 19	
Wu, Xuetong, 1A	
Xiao, Jie, 10	
Xiao, Yang, 0P, 16, 1K	
Xie, Zhihua, 1H	
Xiong, Bincheng, 0F	
Xiong, Jinquan, 1H	
Xiong, Yudian, 15, 1N	
Xu, Guojing, 12	
Xu, Hui, 03	
Xu, Wei, 0O	
Xue, Yaohong, 0A	
Yan, Hao, 0L	
Yan, Lingyu, 03	
Yang, Jianfeng, 0K	
Yang, Liqin, 1J	
Yang, Qi, 0J	
Yang, Weidong, 0M	
Ye, Xianyi, 0Z	
Yu, XiPeng, 0X	
Yu, Zhenghong, 14	
Yu, Zirong, 19	
Yuan, Lu, 03	
Zhang, Chao, 0A	
Zhang, Chunsen, 0R	
Zhang, Daimeng, 0B, 0C, 0F	
Zhang, Dexian, 05	
Zhang, Feng, 02, 1B	
Zhang, Hanmo, 0U	
Zhang, Hongxin, 03	
Zhang, Hui, 1P	
Zhang, Jun, 0B, 0C, 0F	
Zhang, Junwen, 1E	
Zhang, Mingwen, 1G	
Zhang, Shuai, 1H	
Zhang, Shuo, 0X	
Zhang, Ting, 0X, 18	
Zhang, Xiuhua, 0O	
Zhang, Yanduo, 07	
Zhang, Yifei, 02, 1B	

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Introduction

Welcome to the proceedings from the 10th International Symposium on Multispectral Image Processing and Pattern Recognition (MIPPR 2017), held 28-29 October 2017 in Xiangyang, China.

MIPPR focuses mainly on latest research in multispectral image processing and pattern recognition. The symposium has a broad charter. Multispectral is interpreted not just multiple-wavelength in a narrow sense but also multi-sensor, multi-modal, and multimedia. It covers many disciplines such as sensing, image processing, computer vision, pattern recognition and involves the development of efficient processing algorithms and their optimization and implementation. The wide range of applications considered in this symposium include automatic target recognition, autonomous navigation, medical image processing, remote sensing, geographic information systems and many others.

The symposium provides a forum for scientists, professors, engineers and graduate students from universities, industries and government laboratories to meet and exchange ideas and discuss theories, techniques, algorithms and applications in multispectral image processing and pattern recognition. As expected, there were ample discussions both inside and outside the lecture halls helping to make MIPPR 2017 an exciting meeting.

In response to the call for papers, we received 231 submissions. Based on the reviews provided by an excellent program committee we accepted 193 papers covering many aspects of multispectral image processing and pattern recognition. To ensure a high-quality conference, all abstracts and proceedings of SPIE papers are reviewed by peers for technical merit and English expression. The conference proceedings from MIPPR 2017 consist of five volumes which will be included on the SPIE Digital Library:

- *MIPPR 2017: Multispectral Image Acquisition, Processing, and Analysis* (SPIE Volume 10607)
- *MIPPR 2017: Automatic Target Recognition and Navigation* (SPIE Volume 10608)
- *MIPPR 2017: Pattern Recognition and Computer Vision* (SPIE Volume 10609)
- *MIPPR 2017: Parallel Processing of Images and Optimization Techniques; and Medical Imaging* (SPIE Volume 10610)
- *MIPPR 2017: Remote Sensing Image Processing, Geographic Information Systems, and Other Applications* (SPIE Volume 10611).

The realization of a conference depends upon the hard work of many dedicated people. We would like to thank all the members of the organizing committee who

put together this symposium for the benefit of all the researchers. They are responsible for making this conference a success. We hope the papers and the research results presented at this conference will inspire new research in all the areas related to multispectral image processing and pattern recognition.

Bir Bhanu