Contents – Part III

Pan-Sharpening via Coupled Unitary Dictionary Learning .......................... 1
   Shumiao Chen, Liang Xiao, Zhihui Wei, and Wei Huang

Partial Differential Equation Inpainting Method Based on Image
Characteristics ......................................................................................... 11
   Fang Zhang, Ying Chen, Zhitao Xiao, Lei Geng, Jun Wu, Tiejun Feng,
   Ping Liu, Yufei Tan, and Jinjiang Wang

Patch-Based Visual Tracking with Two-Stage Multiple Kernel Learning ....... 20
   Heng Fan and Jinhai Xiang

Pattern Classification for Dermoscopic Images Based on Structure Textons
and Bag-of-Features Model ................................................................... 34
   Yang Li, Fengying Xie, Zhiguo Jiang, and Rusong Meng

Performance-Driven Facial Expression Real-Time Animation Generation ...... 46
   Zhang Mandun, Huo Jianglei, Na Shenruoyang, and Huang Chunmeng

Person Re-identification with Density-Distance Unsupervised Salience
Learning ................................................................................................. 55
   Baoliang Zhou, Aihua Zheng, Bo Jiang, Chenglong Li, and Jin Tang

Phase Unwrapping Method Based on Heterodyne Three Frequency
Non-equal Step Phase Shift ................................................................... 68
   Lei Geng, Yang Liu, Zhitao Xiao, Jun Wu, Yang Zhang, Fei Yuan,
   Zhenjie Yang, Peng Gan, Jingjing Su, and Kun Ye

Photon Shooting with Programmable Scalar Contribution Function .......... 80
   Quan Zheng and Changwen Zheng

Real-Time Locating Method for Palmvein Image Acquisition ..................... 94
   Yaqin Liu, Yujia Zhou, Shirong Qiu, Jirui Qin, and Yixiao Nie

Real-Time Panoramic Image Mosaic via Harris Corner Detection
on FPGA ................................................................................................ 111
   Lu Chen, Jing Han, Yi Zhang, and Lian-fa Bai

Real-Time Robust Video Stabilization Based on Empirical Mode
Decomposition and Multiple Evaluation Criteria ....................................... 125
   Jun Yu, Chang-wei Luo, Chen Jiang, Rui Li, Ling-yan Li,
   and Zeng-fu Wang
Real-Time Underwater Image Contrast Enhancement Through Guided Filtering .......................... 137
  *Huimin Lu, Yujie Li, Xuelong Hu, Shiyuan Yang, and Seiichi Serikawa*

Recent Progress of Structural Variations Detection Algorithms Based on Next-Generation Sequencing: A Survey .................. 148
  *Zhen-Le Wei*

Recognition of In-air Handwritten Chinese Character Based on Leap Motion Controller .................. 160
  *Ning Xu, Weiqiang Wang, and Xiwen Qu*

Relations Between Minkowski-Reduced Basis and $\theta$-orthogonal Basis of Lattice .................................. 169
  *Yuyun Chen, Gengran Hu, Renzhang Liu, Yanbin Pan, and Shikui Shang*

Research on Image Quality Assessment in Foggy Conditions .................. 180
  *Wenjun Lu, Congli Li, Xiaoning Sun, and Song Xue*

Research on Vehicle Type Classification Based on Spatial Pyramid Representation and BP Neural Network .................. 188
  *Shaoyue Song and Zhenjiang Miao*

RGB-D Sensors Calibration for Service Robots SLAM .................. 197
  *Yue Sun, Jingtai Liu, and Lei Sun*

Road Detection Based on Image Boundary Prior .................. 212
  *Huan Wang, Yan Gong, Yangyang Hou, and Ting Cao*

Robust and Real-Time Lane Marking Detection for Embedded System .................. 223
  *Yueting Guo, Yongjun Zhang, Sha Liu, Jun Liu, and Yong Zhao*

Robust Contour Tracking via Constrained Separate Tracking of Location and Shape .................. 236
  *Huijun Di, Linmi Tao, and Guangyou Xu*

Robust Face Hallucination via Similarity Selection and Representation .................. 247
  *Feng Liu, Ruoxuan Yin, Zongliang Gan, Changhong Chen, and Guijin Tang*

Robust Face Recognition with Locality-Sensitive Sparsity and Group Sparsity Constraints .................. 260
  *Xi Sun, Wentao Chan, and Lei Qu*

Robust Salient Object Detection and Segmentation .................. 271
  *Hong Li, Wen Wu, and Enhua Wu*

Rough Lane Marking Locating Based on Adaboost .................. 285
  *Wuwen Jin and Mingwu Ren*
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-box: L-L Cascade Chaotic Map and Line Map.</td>
<td>297</td>
</tr>
<tr>
<td>Ye Tian and Zhimao Lu</td>
<td></td>
</tr>
<tr>
<td>Scene Character and Text Recognition: The State-of-the-Art.</td>
<td>310</td>
</tr>
<tr>
<td>Chongmu Chen, Da-Han Wang, and Hanzi Wang</td>
<td></td>
</tr>
<tr>
<td>Segmentation of Intra-retinal Layers in 3D Optic Nerve Head Images</td>
<td>321</td>
</tr>
<tr>
<td>Chuang Wang, Yaxing Wang, Djibril Kaba, Haogang Zhu, You Lv,</td>
<td></td>
</tr>
<tr>
<td>Zidong Wang, Xiaohui Liu, and Yongmin Li</td>
<td></td>
</tr>
<tr>
<td>Simple, Accurate, and Robust Nonparametric Blind Super-Resolution</td>
<td>333</td>
</tr>
<tr>
<td>Wen-Ze Shao and Michael Elad</td>
<td></td>
</tr>
<tr>
<td>Simulation of Interaction Between Fluid and Deformable Bodies</td>
<td>349</td>
</tr>
<tr>
<td>Ka-Hou Chan, Wen Wu, and Wei Ke</td>
<td></td>
</tr>
<tr>
<td>Single Image Dehazing Based on Visual-Physical Model</td>
<td>360</td>
</tr>
<tr>
<td>Wang Lin, Bi Du-Yan, Li Quan-He, and He Lin-Yuan</td>
<td></td>
</tr>
<tr>
<td>Single Image Super Resolution Algorithm with a New Dictionary Learning Technique K-Eigen Decomposition</td>
<td>369</td>
</tr>
<tr>
<td>Yingyue Zhou, Hongbin Zang, Su Xu, and Hongying Zhang</td>
<td></td>
</tr>
<tr>
<td>Single Remote Sensing Image Haze Removal Based on Spatial and Spectral Self-Adaptive Model</td>
<td>382</td>
</tr>
<tr>
<td>Quan Yuan, Huanfeng Shen, and Huifang Li</td>
<td></td>
</tr>
<tr>
<td>Small Infrared Target Detection Based on Low-Rank Representation</td>
<td>393</td>
</tr>
<tr>
<td>Min Li, Yu-Jie He, and JinLi Zhang</td>
<td></td>
</tr>
<tr>
<td>Sophisticated Tracking Framework with Combined Detector.</td>
<td>402</td>
</tr>
<tr>
<td>Gwangmin Choe, Tianjiang Wang, Qi Feng, Chunhwa Choe, Sokmin Han,</td>
<td></td>
</tr>
<tr>
<td>Hun Kim</td>
<td></td>
</tr>
<tr>
<td>Sparse Representation-Based Deformation Model for Atlas-Based</td>
<td>410</td>
</tr>
<tr>
<td>Segmentation of Liver CT Images</td>
<td></td>
</tr>
<tr>
<td>Changfa Shi, Jinke Wang, and Yuanzhi Cheng</td>
<td></td>
</tr>
<tr>
<td>Survey of Astronomical Image Processing Methods</td>
<td>420</td>
</tr>
<tr>
<td>Hai Jing Zhu, Bo Chong Han, and Bo Qiu</td>
<td></td>
</tr>
<tr>
<td>Synthesis of High Dynamic Range Image Based on Logarithm Intensity</td>
<td>430</td>
</tr>
<tr>
<td>Mapping Function</td>
<td></td>
</tr>
<tr>
<td>Shaojun Zhang, Sheng Zhang, Hailong Cheng, and Chuan Jiang</td>
<td></td>
</tr>
<tr>
<td>Temporal Domain Group Sparse Representation Based Cloud Removal</td>
<td>444</td>
</tr>
<tr>
<td>for Remote Sensing Images</td>
<td></td>
</tr>
<tr>
<td>Xinghua Li, Huanfeng Shen, Huifang Li, and Qiangqiang Yuan</td>
<td></td>
</tr>
</tbody>
</table>
Text to Head Motion Synthesis for Chinese Sign Language Avatar  
Wenjing He, Junfa Liu, and Yiqiang Chen

The Real-Time Vision System for Fabric Defect Detection with Combined Approach  
Pengfei Li, Zhuo Zhao, Lei Zhang, Hongwei Zhang, and Junfeng Jing

The Research of Long Time Occlusion Problem Based on Object Permanence  
Xiang-Dan Hou and Ming-Jing Zhang

The Segmentation Interventricular Septum from MR Images.  
Qian Zheng, Zhentai Lu, Minghui Zhang, Shengli Song, Huan Ma, Lujuan Deng, Zhifeng Zhang, Qianjin Feng, and Wufan Chen

Two-Stage Learning to Robust Visual Track via CNNs  
Dan Hu, Xingshe Zhou, Xiaohao Yu, and Zhiqiang Hou

Undersampled Dynamic MRI Reconstruction by Double Sparse Spatiotemporal Dictionary  
Juerong Wu, Dongxiao Li, Xiaotian Qiao, Lianghao Wang, and Ming Zhang

Underwater Image Devignetting and Colour Correction  
Yujie Li, Huimin Lu, and Seiichi Serikawa

Video Based Face Tracking and Animation  
Changwei Luo, Jun Yu, Zhigang Zheng, Bin Cai, Lingyun Yu, and Zengfu Wang

Video Stabilization via Piecewise Linear L1 Optimization for Airship Earth Observation  
Xiaozhou Xu, Jing Yu, and Weidong Sun

Special Topic: Edutainment and Application

Automated Procedural Generation of Urban Environments Using Open Data for City Visualisation  
David Tully, Abdennour El Rhalibi, Zhigeng Pan, Christopher Carter, and Sud Sudirman

Nonlocal and Nonlinear Model in Image Editing Technique  
Yanxia Bao, Yang Shen, and Xinting Wang

Mesh Extraction from a Regular Grid Structure Using Adjacency Matrix  
David Tully, Abdennour El Rhalibi, Zhigeng Pan, Christopher Carter, and Sud Sudirman
Investigation on the Influence of Visual Attention on Image Memorability
Wulin Wang, Jiande Sun, Jing Li, Qiang Wu, and Ju Liu

Predicting and Visualising City Noise Levels to Support Tinnitus Sufferers.
William Hurst, Graham Davis, Abdennour El Rhalibi, David Tully, and Zhigeng Pan

Heart-Creates-Worlds: An Aesthetic Driven Fitness Training System
Lizhen Han, Mingmin Zhang, Feng Tian, and Xinting Wang

Author Index

Contents – Part III
XXIX

573
583
599
609
Image and Graphics
8th International Conference, ICIG 2015, Tianjin, China,
August 13-16, 2015, Proceedings, Part III
Zhang, Y.-J. (Ed.)
2015, XXIX, 615 p. 316 illus., Softcover
ISBN: 978-3-319-21968-4