Contents – Part III

Pan-Sharpening via Coupled Unitary Dictionary Learning	1
Partial Differential Equation Inpainting Method Based on Image Characteristics	11
Patch-Based Visual Tracking with Two-Stage Multiple Kernel Learning Heng Fan and Jinhai Xiang	20
Pattern Classification for Dermoscopic Images Based on Structure Textons and Bag-of-Features Model	34
Performance-Driven Facial Expression Real-Time Animation Generation Zhang Mandun, Huo Jianglei, Na Shenruoyang, and Huang Chunmeng	46
Person Re-identification with Density-Distance Unsupervised Salience Learning	55
Phase Unwrapping Method Based on Heterodyne Three Frequency Non-equal Step Phase Shift	68
Photon Shooting with Programmable Scalar Contribution Function	80
Real-Time Locating Method for Palmvein Image Acquisition	94
Real-Time Panoramic Image Mosaic via Harris Corner Detection on FPGA	111
Real-Time Robust Video Stabilization Based on Empirical Mode Decomposition and Multiple Evaluation Criteria	125

Real-Time Underwater Image Contrast Enhancement Through Guided Filtering	137
Recent Progress of Structural Variations Detection Algorithms Based on Next-Generation Sequencing: A Survey	148
Recognition of In-air Handwritten Chinese Character Based on Leap Motion Controller	160
Relations Between Minkowski-Reduced Basis and θ -orthogonal Basis of Lattice	169
Research on Image Quality Assessment in Foggy Conditions	180
Research on Vehicle Type Classification Based on Spatial Pyramid Representation and BP Neural Network	188
RGB-D Sensors Calibration for Service Robots SLAM	197
Road Detection Based on Image Boundary Prior	212
Robust and Real-Time Lane Marking Detection for Embedded System Yueting Guo, Yongjun Zhang, Sha Liu, Jun Liu, and Yong Zhao	223
Robust Contour Tracking via Constrained Separate Tracking of Location and Shape	236
Robust Face Hallucination via Similarity Selection and Representation Feng Liu, Ruoxuan Yin, Zongliang Gan, Changhong Chen, and Guijin Tang	247
Robust Face Recognition with Locality-Sensitive Sparsity and Group Sparsity Constraints	260
Robust Salient Object Detection and Segmentation	271
Rough Lane Marking Locating Based on Adaboost	285

Contents – Part III XX	ΚVII
S-box: L-L Cascade Chaotic Map and Line Map	297
Scene Character and Text Recognition: The State-of-the-Art	310
Segmentation of Intra-retinal Layers in 3D Optic Nerve Head Images	321
Simple, Accurate, and Robust Nonparametric Blind Super-Resolution	333
Simulation of Interaction Between Fluid and Deformable Bodies	349
Single Image Dehazing Based on Visual-Physical Model	360
Single Image Super Resolution Algorithm with a New Dictionary Learning Technique K-Eigen Decomposition	369
Single Remote Sensing Image Haze Removal Based on Spatial and Spectral Self-Adaptive Model	382
Small Infrared Target Detection Based on Low-Rank Representation	393
Sophisticated Tracking Framework with Combined Detector	402
Sparse Representation-Based Deformation Model for Atlas-Based Segmentation of Liver CT Images	410
Survey of Astronomical Image Processing Methods	420
Synthesis of High Dynamic Range Image Based on Logarithm Intensity Mapping Function Shaojun Zhang, Sheng Zhang, Hailong Cheng, and Chuan Jiang	430
Temporal Domain Group Sparse Representation Based Cloud Removal for Remote Sensing Images	444

Text to Head Motion Synthesis for Chinese Sign Language Avatar	453
The Real-Time Vision System for Fabric Defect Detection with Combined Approach	460
Pengfei Li, Zhuo Zhao, Lei Zhang, Hongwei Zhang, and Junfeng Jing	
The Research of Long Time Occlusion Problem Based on Object Permanence	474
Alang-Dan Hou and Ming-Sing Zhang	
The Segmentation Interventricular Septum from MR Images	483
Two-Stage Learning to Robust Visual Track via CNNs	491
Undersampled Dynamic MRI Reconstruction by Double Sparse Spatiotemporal Dictionary	499
Underwater Image Devignetting and Colour Correction	510
Video Based Face Tracking and Animation	522
Video Stabilization via Piecewise Linear L1 Optimization for Airship Earth Observation	534
Special Topic: Edutainment and Application	
Automated Procedural Generation of Urban Environments Using Open Data for City Visualisation	545
Nonlocal and Nonlinear Model in Image Editing Technique Yanxia Bao, Yang Shen, and Xinting Wang	552
Mesh Extraction from a Regular Grid Structure Using Adjacency Matrix David Tully, Abdennour El Rhalibi, Zhigeng Pan, Christopher Carter, and Sud Sudirman	562

Contents – Part III	XXIX
Investigation on the Influence of Visual Attention on Image Memorability Wulin Wang, Jiande Sun, Jing Li, Qiang Wu, and Ju Liu	573
Predicting and Visualising City Noise Levels to Support Tinnitus Sufferers William Hurst, Graham Davis, Abdennour El Rhalibi, David Tully, and Zhigeng Pan	583
Heart-Creates-Worlds: An Aesthetic Driven Fitness Training System Lizhen Han, Mingmin Zhang, Feng Tian, and Xinting Wang	599
Author Index	609