

Contents – Part I

S2DLDP with its Application to Palmprint Recognition	1
<i>Ligang Liu, Jianxin Zhang, and Yinghua Jiang</i>	
A Hierarchical Voting Scheme for Robust Geometric Model Fitting	11
<i>Fan Xiao, Guobao Xiao, Xing Wang, Jin Zheng, Yan Yan, and Hanzi Wang</i>	
Multi-kernel Hashing with Semantic Correlation Maximization for Cross-Modal Retrieval	23
<i>Guangfei Yang, Huanghui Miao, Jun Tang, Dong Liang, and Nian Wang</i>	
Preprocessing and Segmentation Algorithm for Multiple Overlapped Fiber Image	35
<i>Xiaochun Chen, Yanbin Zhang, Shun Fu, Hu Peng, and Xiang Chen</i>	
Action Graph Decomposition Based on Sparse Coding	48
<i>Wengang Feng, Huawei Tian, Yanhui Xiao, Jianwei Ding, and Yunqi Tang</i>	
An Unsupervised Change Detection Approach for Remote Sensing Image Using Visual Attention Mechanism	58
<i>Lin Wu, Guanghua Feng, and Jiangtao Long</i>	
An Efficient and Robust Visual Tracking via Color-Based Context Prior Model	70
<i>Chunlei Yu, Baojun Zhao, Zengshuo Zhang, and Maowen Li</i>	
Non-local L_0 Gradient Minimization Filter and Its Applications for Depth Image Upsampling	85
<i>Hang Yang, Xueqi Sun, Ming Zhu, and Kun Wu</i>	
Salient Object Detection via Google Image Retrieval	97
<i>Weimin Tan and Bo Yan</i>	
Abnormal Gait Detection in Surveillance Videos with FFT-Based Analysis on Walking Rhythm	108
<i>Anqin Zhang, Su Yang, Xinfeng Zhang, Jiulong Zhang, and Weishan Zhang</i>	

Uncooperative Gait Recognition Using Joint Bayesian	118
<i>Chao Li, Kan Qiao, Xin Min, Xiaoyan Pang, and Shouqian Sun</i>	
Pedestrian Detection via Structure-Sensitive Deep Representation Learning	127
<i>Deliang Huang, Shijia Huang, Hefeng Wu, and Ning Liu</i>	
Two-Stage Saliency Fusion for Object Segmentation	139
<i>Guangling Sun, Jingru Ren, Zhi Liu, and Wei Shan</i>	
Recognition of Offline Handwritten Mathematical Symbols Using Convolutional Neural Networks	149
<i>Lanfang Dong and Hanchao Liu</i>	
4D ISIP: 4D Implicit Surface Interest Point Detection	162
<i>Shirui Li, Alper Yilmaz, Changlin Xiao, and Hua Li</i>	
Integrative Embedded Car Detection System with DPM	174
<i>Wei Zhang, Lian-fa Bai, Yi Zhang, and Jing Han</i>	
Online Fast Deep Learning Tracker Based on Deep Sparse Neural Networks	186
<i>Xin Wang, Zhiqiang Hou, Wangsheng Yu, and Zefenfen Jin</i>	
Affine-Gradient Based Local Binary Pattern Descriptor for Texture Classification	199
<i>You Hao, Shirui Li, Hanlin Mo, and Hua Li</i>	
Deep Convolutional Neural Network for Facial Expression Recognition	211
<i>Yikui Zhai, Jian Liu, Junying Zeng, Vincenzo Piuri, Fabio Scotti, Zilu Ying, Ying Xu, and Junying Gan</i>	
A New Framework for Removing Impulse Noise in an Image	224
<i>Zhou Yingyue, Xu Su, Zang Hongbin, and He Hongsen</i>	
Joint Classification Loss and Histogram Loss for Sketch-Based Image Retrieval	238
<i>Yongluan Yan, Xinggang Wang, Xin Yang, Xiang Bai, and Wenyu Liu</i>	
Correlation Based Identity Filter: An Efficient Framework for Person Search	250
<i>Wei-Hong Li, Yafang Mao, Ancong Wu, and Wei-Shi Zheng</i>	
An Online Approach for Gesture Recognition Toward Real-World Applications	262
<i>Zhaoxuan Fan, Tianwei Lin, Xu Zhao, Wanli Jiang, Tao Xu, and Ming Yang</i>	

A Novel Pavement Crack Detection Approach Using Pre-selection Based on Transfer Learning	273
<i>Kaige Zhang and Hengda Cheng</i>	
Learning Local Instance Constraint for Multi-label Classification	284
<i>Shang Luo, Xiaofeng Wu, Bin Wang, and Liming Zhang</i>	
Disparity Refinement Using Merged Super-Pixels for Stereo Matching	295
<i>Jianyu Heng, Zhenyu Xu, Yunan Zheng, and Yiguang Liu</i>	
Deep Scale Feature for Visual Tracking	306
<i>Wenyi Tang, Bin Liu, and Nenghai Yu</i>	
TCCF: Tracking Based on Convolutional Neural Network and Correlation Filters	316
<i>Qiankun Liu, Bin Liu, and Nenghai Yu</i>	
PPEDNet: Pyramid Pooling Encoder-Decoder Network for Real-Time Semantic Segmentation	328
<i>Zhentao Tan, Bin Liu, and Nenghai Yu</i>	
A New Kinect Approach to Judge Unhealthy Sitting Posture Based on Neck Angle and Torso Angle.	340
<i>Leiyue Yao, Weidong Min, and Hao Cui</i>	
Using Stacked Auto-encoder to Get Feature with Continuity and Distinguishability in Multi-object Tracking.	351
<i>Haoyang Feng, Xiaofeng Li, Peixin Liu, and Ning Zhou</i>	
Vehicle Detection Based on Superpixel and Improved HOG in Aerial Images	362
<i>Enlai Guo, Lianfa Bai, Yi Zhang, and Jing Han</i>	
Scalable Object Detection Using Deep but Lightweight CNN with Features Fusion	374
<i>Qiaosong Chen, Shangsheng Feng, Pei Xu, Lexin Li, Ling Zheng, Jin Wang, and Xin Deng</i>	
Object Tracking with Blocked Color Histogram	386
<i>Xiaoyu Chen, Lianfa Bai, Yi Zhang, and Jing Han</i>	
Deep Networks for Single Image Super-Resolution with Multi-context Fusion	397
<i>Zheng Hui, Xiumei Wang, and Xinbo Gao</i>	

Chinese Handwriting Generation by Neural Network Based Style Transformation	408
<i>Bi-Ren Tan, Fei Yin, Yi-Chao Wu, and Cheng-Lin Liu</i>	
Text Detection Based on Affine Transformation	420
<i>Xiaoyue Jiang, Jing Liu, Yu Liu, Lin Zhang, and Xiaoyi Feng</i>	
Visual Servoing of Mobile Robots with Input Saturation at Kinematic Level	432
<i>Runhua Wang, Xuebo Zhang, Yongchun Fang, and Baoquan Li</i>	
Fabric Defect Detection Algorithm Based on Multi-channel Feature Extraction and Joint Low-Rank Decomposition	443
<i>Chaodie Liu, Guangshuai Gao, Zhoufeng Liu, Chunlei Li, and Yan Dong</i>	
Robust 3D Indoor Map Building via RGB-D SLAM with Adaptive IMU Fusion on Robot	454
<i>Xinrui Meng, Wei Gao, and Zhanyi Hu</i>	
The Research of Multi-angle Face Detection Based on Multi-feature Fusion	466
<i>Mengnan Hu, Yongkang Liu, and Rong Wang</i>	
Attention-Sharing Correlation Learning for Cross-Media Retrieval.	477
<i>Xin Huang, Zhaoda Ye, and Yuxin Peng</i>	
A Method for Extracting Eye Movement and Response Characteristics to Distinguish Depressed People	489
<i>Chao Le, Huimin Ma, and Yidong Wang</i>	
Long-Distance/Environment Face Image Enhancement Method for Recognition.	501
<i>Zhengning Wang, Shanshan Ma, Mingyan Han, Guang Hu, and Shuaicheng Liu</i>	
A Method on Recognizing Transmission Line Structure Based on Multi-level Perception	512
<i>Yue Liu, Jianxiang Li, Wei Xu, and Mingyang Liu</i>	
Saliency Detection Based on Background and Foreground Modeling.	523
<i>Zhengbing Wang, Guili Xu, Yuehua Cheng, and Zhengsheng Wang</i>	

Scale Estimation and Refinement in Monocular Visual-Inertial SLAM System	533
<i>Xufu Mu, Jing Chen, Zhen Leng, Songnan Lin, and Ningsheng Huang</i>	
Crop Disease Image Recognition Based on Transfer Learning.	545
<i>Sisi Fang, Yuan Yuan, Lei Chen, Jian Zhang, Miao Li, and Shide Song</i>	
Multi-orientation Scene Text Detection Leveraging Background Suppression	555
<i>Xihan Wang, Xiaoyi Feng, Zhaoqiang Xia, Jinye Peng, and Eric Granger</i>	
Sparse Time-Varying Graphs for Slide Transition Detection in Lecture Videos	567
<i>Zhijin Liu, Kai Li, Liqun Shen, and Ping An</i>	
Heterogeneous Multi-group Adaptation for Event Recognition in Consumer Videos	577
<i>Mingyu Yao, Xinxiao Wu, Mei Chen, and Yunde Jia</i>	
Margin-Aware Binarized Weight Networks for Image Classification	590
<i>Ting-Bing Xu, Peipei Yang, Xu-Yao Zhang, and Cheng-Lin Liu</i>	
Multi-template Matching Algorithm Based on Adaptive Fusion.	602
<i>Bing Li, Juan Su, Dan Chen, and Wei Wu</i>	
Combining Object-Based Attention and Attributes for Image Captioning	614
<i>Cong Li, Jiansheng Chen, Weitao Wan, and Tianpeng Li</i>	
Intrinsic Image Decomposition: A Comprehensive Review	626
<i>Yupeng Ma, Xiaoyi Feng, Xiaoyue Jiang, Zhaoqiang Xia, and Jinye Peng</i>	
Multi-instance Multi-label Learning for Image Categorization Based on Integrated Contextual Information	639
<i>Xingyue Li, Shouhong Wan, Chang Zou, and Bangjie Yin</i>	
Book Page Identification Using Convolutional Neural Networks Trained by Task-Unrelated Dataset	651
<i>Leyuan Liu, Yi Zhao, Huabing Zhou, and Jingying Chen</i>	
No Reference Assessment of Image Visibility for Dehazing	664
<i>Manjun Qin, Fengying Xie, and Zhiguo Jiang</i>	

Multi-focus Image Fusion Using Dictionary Learning and Low-Rank Representation	675
<i>Hui Li and Xiao-Jun Wu</i>	
Key-Region Representation Learning for Anomaly Detection	687
<i>Wenfei Yang, Bin Liu, and Nenghai Yu</i>	
Author Index	699

Contents – Part II

Computer Vision and Pattern Recognition

Boosting CNN-Based Pedestrian Detection via 3D LiDAR Fusion in Autonomous Driving	3
<i>Jian Dou, Jianwu Fang, Tao Li, and Jianru Xue</i>	
Actual License Plate Images Clarity Classification via Sparse Representation.	14
<i>Yudong Cheng, Feng Liu, Zongliang Gan, and Ziguan Cui</i>	
Non-rigid 3D Object Retrieval with a Learned Shape Descriptor.	24
<i>Xiangfu Shi, Jieyu Zhao, Long Zhang, and Xulun Ye</i>	
Adaptive Patch Quantization for Histogram-Based Visual Tracking	38
<i>Lvran Chen, Huicheng Zheng, Zijian Lin, Dajun Lin, and Bo Ke</i>	
Neural Image Caption Generation with Global Feature Based Attention Scheme	51
<i>Yongzhuang Wang and Hongkai Xiong</i>	
Activation-Based Weight Significance Criterion for Pruning Deep Neural Networks.	62
<i>Jiayu Dong, Huicheng Zheng, and Lina Lian</i>	
Local and Global Sparsity for Deep Learning Networks.	74
<i>Long Zhang, Jieyu Zhao, Xiangfu Shi, and Xulun Ye</i>	
Object Detection by Learning Oriented Gradients	86
<i>Jiajie Chen, Huicheng Zheng, Na He, Ziquan Luo, and Rui Zhu</i>	
Unsupervised Representation Learning with Deep Convolutional Neural Network for Remote Sensing Images.	97
<i>Yang Yu, Zhiqiang Gong, Ping Zhong, and Jiaxin Shan</i>	
Image Captioning with Object Detection and Localization	109
<i>Zhongliang Yang, Yu-Jin Zhang, Sadaqat ur Rehman, and Yongfeng Huang</i>	
Image Set Representation with L_1 -Norm Optimal Mean Robust Principal Component Analysis	119
<i>Youxia Cao, Bo Jiang, Jin Tang, and Bin Luo</i>	

Object Tracking Based on Multi-modality Dictionary Learning	129
<i>Jing Wang, Hong Zhu, Shan Xue, and Jing Shi</i>	
Hardness Prediction for Object Detection Inspired by Human Vision	139
<i>Yuwei Qiu, Huimin Ma, and Lei Gao</i>	
Orientation Estimation Network	151
<i>Jie Sun, Wengang Zhou, and Houqiang Li</i>	
A Method for Detecting Surface Defects in Insulators Based on RPCA	163
<i>Wei Hu, Hongyu Qi, Zhenbing Zhao, and Leilei Xu</i>	
A Dim Small Target Detection Method Based on Spatial-Frequency Domain Features Space	174
<i>Jinqiu Sun, Danna Xue, Haisen Li, Yu Zhu, and Yanning Zhang</i>	

Compression, Transmission, Retrieval

An Algorithm for Tight Frame Grouplet to Compute Association Fields	187
<i>Jingwen Yan, Zhenguo Yuan, Tingting Xie, and Huimin Zhao</i>	
Adaptive Coding for Compressed Video Sensing	197
<i>Jian Wu, Yongfang Wang, Yun Zhu, and Yuan Shuai</i>	
Deep Top Similarity Preserving Hashing for Image Retrieval	206
<i>Qiang Li, Haiyan Fu, and Xiangwei Kong</i>	
A Fast CU Decision Algorithm in Inter Coding Based on Residual Analysis.	216
<i>Lanfang Dong and Li Wang</i>	
Feature-Based Facial Image Coding Method Using Wavelet Transform	229
<i>Chuxi Yang, Yan Zhao, Shigang Wang, and Yuanyuan Liu</i>	
Video Content Caching and Delivery for Tri-Party Joint Profit Optimization	239
<i>Congcong Zhai, Junni Zou, and Yunfei Zhang</i>	
Information Gain Product Quantization for Image Retrieval	252
<i>Jingjia Chen, Yonghong Song, and Yuanlin Zhang</i>	
A Crop Disease Image Retrieval Method Based on the Improvement of Inverted Index	262
<i>Yuan Yuan, Lei Chen, Miao Li, and Na Wu</i>	
A Novel Self-adaptive Defog Method Based on Bionic	274
<i>Shi-ping Ma, Quan-He Li, Du-Yan Bi, and Ya-Yun Dong</i>	

Local Disparity Vector Derivation Scheme in 3D-AVS2	286
<i>Qi Mao, Shanshe Wang, and Siwei Ma</i>	

A Feature-Based Coding Algorithm for Face Image.	299
<i>Henan Li, Shigang Wang, Yan Zhao, Chuxi Yang, and Aobo Wang</i>	

5G Multimedia Communications

Video Quality Assessment Based on the Improved LSTM Model	313
<i>Qiuxia Bao, Ruochen Huang, and Xin Wei</i>	

GECKO: Gamer Experience-Centric Bitrate Control Algorithm for Cloud Gaming	325
<i>Yihao Ke, Guoqiao Ye, Di Wu, Yipeng Zhou, Edith Ngai, and Han Hu</i>	

A QoE-Aware Video Quality Guarantee Mechanism in 5G Network	336
<i>Ruyan Wang, Yan Yang, and Dapeng Wu</i>	

Energy-Aware Fast Interest Forwarding for Multimedia Streaming over ICN 5G-D2D	353
<i>Xingyan Chen, Mu Wang, Shijie Jia, and Changqiao Xu</i>	

Artificial Intelligence

Stability Analysis of ECOC Kernel Machines	369
<i>Aijun Xue, Xiaodan Wang, and Xiaolong Fu</i>	

Deep Convolutional Neural Network for Emotion Recognition Using EEG and Peripheral Physiological Signal	385
<i>Wenqian Lin, Chao Li, and Shouqian Sun</i>	

Incremental Active Learning Method for Supervised ISOMAP	395
<i>Guopeng Zhang, Rui Huang, and Junli Chen</i>	

USTB-Helloear: A Large Database of Ear Images Photographed Under Uncontrolled Conditions	405
<i>Yi Zhang, Zhichun Mu, Li Yuan, Chen Yu, and Qing Liu</i>	

Survival-Oriented Reinforcement Learning Model: An Efficient and Robust Deep Reinforcement Learning Algorithm for Autonomous Driving Problem	417
<i>Changkun Ye, Huimin Ma, Xiaoqin Zhang, Kai Zhang, and Shaodi You</i>	

Edge Detection Based on Primary Visual Pathway	430
<i>Chao Lv, Yuelei Xu, Xulei Zhang, Shiping Ma, Shuai Li, Peng Xin, Mingning Zhu, and Hongqiang Ma</i>	
Multi-channel Satellite Cloud Image Fusion in the Shearlet Transform Domain and Its Influence on Typhoon Center Location	440
<i>Changjiang Zhang, Yuan Chen, and Leiming Ma</i>	

Biological and Medical Image Processing

Parallel Regional Growth Marching Cubes: Efficient Surface Reconstruction Based on MPI.	455
<i>Xiaohui Wei, Xinyan Bao, Xiaoli Pang, and Haolong Cui</i>	
Shape Registration and Low-Rank for Multiple Image Segmentation	466
<i>Wei Hua and Fei Chen</i>	
Efficient Statistical Shape Models-Based Image Segmentation Approach Using Deformable Simplex Meshes.	476
<i>Jinke Wang, Hongliang Zu, and Shinichi Tamura</i>	
An Artery/Vein Classification Method Based on Color and Vascular Structure Information.	487
<i>Dongmei Fu, Yang Liu, and Haosen Ma</i>	
Improved U-Net Model for Nerve Segmentation	496
<i>Houlong Zhao and Nongliang Sun</i>	
ECG Waveform Extraction from Paper Records	505
<i>Jian Wang, Yanwei Pang, Yuqing He, and Jing Pan</i>	
Automatic Classification of Focal Liver Lesion in Ultrasound Images Based on Sparse Representation	513
<i>Weining Wang, Yizi Jiang, Tingting Shi, Longzhong Liu, Qinghua Huang, and Xiangmin Xu</i>	
Simultaneous Segmentation of Multiple Regions in 3D Bladder MRI by Efficient Convex Optimization of Coupled Surfaces	528
<i>Xiao-pan Xu, Xi Zhang, Yang Liu, Qiang Tian, Guo-peng Zhang, Zeng-yue Yang, Hong-bing Lu, and Jing Yuan</i>	

Color and Multispectral Processing

Background Self-adapted Digital Camouflage Pattern Generation Algorithm for Fixed Target	545
<i>Qin Lei, Duan Ze-wei, Hu Jiang-hua, Xu Wei-dong, and Zhang Xiang</i>	

Practical Bottom-up Golf Course Detection Using Multispectral Remote Sensing Imagery	552
<i>Jingbo Chen, Chengyi Wang, Dongxu He, Jiansheng Chen, and Anzhi Yue</i>	
Efficient Decolorization via Perceptual Group Difference Enhancement	560
<i>Hongchao Zhang and Shiguang Liu</i>	
A Spectral Unmixing Method Based on Co-Training	570
<i>Qingyu Pang, Jing Yu, and Weidong Sun</i>	
A Novel Algorithm of Image Fusion Based on Non-subsampled Shearlet-Contrast Transform	580
<i>Dongpeng Wu, Duyan Bi, Linyuan He, Shiping Ma, Zunlin Fan, Wenshan Ding, Liyang Wu, Shiping Wang, and Kun Liu</i>	
Tricolor Pre-equalization Deblurring for Underwater Image Enhancement.	590
<i>Xiaofan Sun, Hao Liu, Xinsheng Zhang, and Kailian Deng</i>	
Link Functions and Training-Based in Reflectance Reconstruction from RGB Images.	602
<i>Lijun Zhang, Jun Jiang, Jingjing Zhang, and Chen Wang</i>	
Multi-modal Image Registration Based on Modified-SURF and Consensus Inliers Recovery	612
<i>Yanjia Chen, Xiuwei Zhang, Fei Li, and Yanning Zhang</i>	
Author Index	623

Contents – Part III

Computational Imaging

A Double Recursion Algorithm to Image Restoration from Random Limited Frequency Data	3
<i>Xiaoman Liu and Jijun Liu</i>	
RGB-D Saliency Detection with Multi-feature-fused Optimization.	15
<i>Tianyi Zhang, Zhong Yang, and Jiarong Song</i>	
Research on Color Image Segmentation	27
<i>Jingwen Yan, Xiaopeng Chen, Tingting Xie, and Huimin Zhao</i>	
Depth-Based Focus Stacking with Labeled-Laplacian Propagation	36
<i>Wentao Li, Guijin Wang, Xuanwu Yin, Xiaowei Hu, and Huazhong Yang</i>	
A Novel Method for Measuring Shield Tunnel Cross Sections	47
<i>Ya-dong Xue, Sen Zhang, and Zhe-ting Qi</i>	
Image Noise Estimation Based on Principal Component Analysis and Variance-Stabilizing Transformation	58
<i>Ling Ding, Huiying Zhang, Bijun Li, Jinsheng Xiao, and Jian Zhou</i>	
Efficient High Dynamic Range Video Using Multi-exposure CNN Flow	70
<i>Yuchen Guo, Zhifeng Xie, Wenjun Zhang, and Lizhuang Ma</i>	
Depth Image Acquisition Method in Virtual Interaction of VR Yacht Simulator	82
<i>Qin Zhang and Yong Yin</i>	
An Image Segmentation Method Based on Asynchronous Multiscale Similarity Measure.	93
<i>Min Li, Zhongwai Xu, Hongwen Xie, and Yuhang Xing</i>	
Lagrange Detector in Image Processing	102
<i>Feilong Ma, Linmi Tao, and Wu Xia</i>	
New Tikhonov Regularization for Blind Image Restoration	113
<i>Yuying Shi, Qiao Liu, and Yonggui Zhu</i>	

Real-Time Multi-camera Video Stitching Based on Improved Optimal Stitch Line and Multi-resolution Fusion.	124
<i>Dong-Bin Xu, He-Meng Tao, Jing Yu, and Chuang-Bai Xiao</i>	

Image Quality Assessment of Enriched Tonal Levels Images	134
<i>Jie Zhao, Wei Wen, and Siamak Khatibi</i>	

Computer Graphics and Visualization

A Variational Model to Extract Texture from Noisy Image Data with Local Variance Constraints	149
<i>Tao Zhang and Qiuli Gao</i>	

Joint Visualization of UKF Tractography Data	158
<i>Wen Zhao, Wenyao Zhang, Na Wang, and Pin Liao</i>	

Semantic Segmentation Based Automatic Two-Tone Portrait Synthesis	170
<i>Zhuoqi Ma, Nannan Wang, Xinbo Gao, and Jie Li</i>	

Parameters Sharing Multi-items Non-parametric Factor Microfacet Model for Isotropic and Anisotropic BRDFs.	182
<i>Junkai Peng, Changwen Zheng, and Pin Lv</i>	

SRG and RMSE-Based Automated Segmentation for Volume Data	194
<i>Wang Li, Xiaolan Tang, and Junda Zhang</i>	

Shape Recovery of Endoscopic Videos by Shape from Shading Using Mesh Regularization	204
<i>Zhihang Ren, Tong He, Lingbing Peng, Shuaicheng Liu, Shuyuan Zhu, and Bing Zeng</i>	

Lazy Recoloring	214
<i>Guanlei Xu, Xiaotong Wang, Xiaogang Xu, and Lijia Zhou</i>	

Similar Trademark Image Retrieval Integrating LBP and Convolutional Neural Network	231
<i>Tian Lan, Xiaoyi Feng, Zhaoqiang Xia, Shijie Pan, and Jinye Peng</i>	

Adaptive Learning Compressive Tracking Based on Kalman Filter	243
<i>Xingyu Zhou, Dongmei Fu, Yanan Shi, and Chunhong Wu</i>	

Online High-Accurate Calibration of RGB+3D-LiDAR for Autonomous Driving	254
<i>Tao Li, Jianwu Fang, Yang Zhong, Di Wang, and Jianru Xue</i>	

Run-Based Connected Components Labeling Using Double-Row Scan	264
<i>Dongdong Ma, Shaojun Liu, and Qingmin Liao</i>	
A 3D Tube-Object Centerline Extraction Algorithm Based on Steady Fluid Dynamics	275
<i>Dongjin Huang, Ruobin Gong, Hejuan Li, Wen Tang, and Youdong Ding</i>	
Moving Objects Detection in Video Sequences Captured by a PTZ Camera	287
<i>Li Lin, Bin Wang, Fen Wu, and Fengyin Cao</i>	
Fast Grid-Based Fluid Dynamics Simulation with Conservation of Momentum and Kinetic Energy on GPU	299
<i>Ka-Hou Chan and Sio-Kei Im</i>	
Adaptive Density Optimization of Lattice Structures Sustaining the External Multi-load	311
<i>Li Shi, Changdong Zhang, Tingting Liu, Wenhe Liao, and Xiuyi Jia</i>	
Hyperspectral Image Processing	
Hyperspectral Image Classification Based on Deep Forest and Spectral-Spatial Cooperative Feature	325
<i>Mingyang Li, Ning Zhang, Bin Pan, Shaobiao Xie, Xi Wu, and Zhenwei Shi</i>	
Hyperspectral Image Classification Using Multi Vote Strategy on Convolutional Neural Network and Sparse Representation Joint Feature.	337
<i>Daoming Ye, Rong Zhang, and Dixiu Xue</i>	
Efficient Deep Belief Network Based Hyperspectral Image Classification. . . .	347
<i>Atif Mughees and Linmi Tao</i>	
Classification of Hyperspectral Imagery Based on Dictionary Learning and Extended Multi-attribute Profiles	358
<i>Qishuo Gao, Samsung Lim, and Xiuping Jia</i>	
Deep Residual Convolutional Neural Network for Hyperspectral Image Super-Resolution.	370
<i>Chen Wang, Yun Liu, Xiao Bai, Wenzhong Tang, Peng Lei, and Jun Zhou</i>	

Multi-view and Stereoscopic Processing

Stereoscopic Digital Camouflage Pattern Generation Algorithm Based on Color Image Segmentation	383
<i>Qin Lei, Wei-dong Xu, Jiang-hua Hu, and Chun-yu Xu</i>	
Uncertain Region Identification for Stereoscopic Foreground Cutout	390
<i>Taotao Yang, Shuaicheng Liu, Chao Sun, Zhengning Wang, and Bing Zeng</i>	
Map-Build Algorithm Based on the Relative Location of Feature Points	400
<i>Cheng Zhao, Fuqiang Zhao, and Bin Kong</i>	
Sparse Acquisition Integral Imaging System	412
<i>Bowen Jia, Shigang Wang, Wei Wu, Tianshu Li, and Lizhong Zhang</i>	
Marker-Less 3D Human Motion Capture in Real-Time Using Particle Swarm Optimization with GPU-Accelerated Fitness Function	423
<i>Bogdan Kwolek and Boguslaw Rymut</i>	
Warping and Blending Enhancement for 3D View Synthesis Based on Grid Deformation	436
<i>Ningning Hu, Yao Zhao, and Huihui Bai</i>	
A Vehicle-Mounted Multi-camera 3D Panoramic Imaging Algorithm Based on Ship-Shaped Model	445
<i>Xin Wang, Chunyu Lin, Yi Gao, Yaru Li, Shikui Wei, and Yao Zhao</i>	
A Quality Evaluation Scheme to 3D Printing Objects Using Stereovision Measurement.	458
<i>Li-fang Wu, Xiao-hua Guo, Li-dong Zhao, and Meng Jian</i>	

Representation, Analysis and Applications of Large-Scale 3D Multimedia Data

Secure Image Denoising over Two Clouds	471
<i>Xianjun Hu, Weiming Zhang, Honggang Hu, and Nenghai Yu</i>	
Aesthetic Quality Assessment of Photos with Faces.	483
<i>Weining Wang, Jiexiong Huang, Xiangmin Xu, Quanzeng You, and Jiebo Luo</i>	

Sensitive Information Detection on Cyber-Space	496
<i>Mingbao Lin, Xianming Lin, Yunhang Shen, and Rongrong Ji</i>	

Optimization Algorithm Toward Deep Features Based Camera Pose Estimation	505
<i>Han Chen, Feng Guo, Ying Lin, and Rongrong Ji</i>	

Security

A Robust 3D Video Watermarking Scheme Based on Multi-modal Visual Redundancy	517
<i>Congxin Cheng, Wei Ma, Yuchen Yang, Shiyang Zhang, and Mana Zheng</i>	

Partial Secret Image Sharing for (n, n) Threshold Based on Image Inpainting	527
<i>Xuehu Yan, Yuliang Lu, Lintao Liu, Shen Wang, Song Wan, Wanmeng Ding, and Hanlin Liu</i>	

A New SMVQ-Based Reversible Data Hiding Scheme Using State-Codebook Sorting	539
<i>Juan-ni Liu, Quan Zhou, Yan-lang Hu, and Jia-yuan Wei</i>	

An Efficient Privacy-Preserving Classification Method with Condensed Information	551
<i>Xinning Li and Zhiping Zhou</i>	

Cross-Class and Inter-class Alignment Based Camera Source Identification for Re-compression Images	563
<i>Guowen Zhang, Bo Wang, and Yabin Li</i>	

JPEG Photo Privacy-Preserving Algorithm Based on Sparse Representation and Data Hiding	575
<i>Wenjie Li, Rongrong Ni, and Yao Zhao</i>	

Surveillance and Remote Sensing

An Application Independent Logic Framework for Human Activity Recognition	589
<i>Wengang Feng, Yanhui Xiao, Huawei Tian, Yunqi Tang, and Jianwei Ding</i>	

An Altitude Based Landslide and Debris Flow Detection Method for a Single Mountain Remote Sensing Image	601
<i>Tingting Sheng and Qiang Chen</i>	
Improved Fully Convolutional Network for the Detection of Built-up Areas in High Resolution SAR Images	611
<i>Ding-Li Gao, Rong Zhang, and Di-Xiu Xue</i>	
SAR Image Registration with Optimized Feature Descriptor and Reliable Feature Matching	621
<i>Yanzhao Wang, Juan Su, Bichao Zhan, Bing Li, and Wei Wu</i>	
An Improved Feature Selection Method for Target Discrimination in SAR Images	633
<i>Yanyan Li and Aihua Cai</i>	
The Detection of Built-up Areas in High-Resolution SAR Images Based on Deep Neural Networks.	646
<i>Yunfei Wu, Rong Zhang, and Yue Li</i>	
SAR Automatic Target Recognition Based on Deep Convolutional Neural Network	656
<i>Ying Xu, Kaipin Liu, Zilu Ying, Lijuan Shang, Jian Liu, Yikui Zhai, Vincenzo Piuri, and Fabio Scotti</i>	
Author Index	669

Image and Graphics

9th International Conference, ICIG 2017, Shanghai,
China, September 13-15, 2017, Revised Selected
Papers, Part I

Zhao, Y.; Kong, X.; Taubmann, D. (Eds.)

2017, XXX, 705 p. 334 illus., Softcover

ISBN: 978-3-319-71606-0