

# Table of Contents

Image Quality Assessment Based on SIFT and SSIM .....	1
<i>Wenjun Lu, Congli Li, Yongchang Shi, and Xiaoning Sun</i>	
Edge Detection in Presence of Impulse' Noise .....	8
<i>Yuying Shi, Feng Guo, Xinhua Su, and Jing Xu</i>	
A Novel Multi-focus Image Capture and Fusion System for Macro Photography .....	19
<i>Yili Zhao, Yi Zhou, and Dan Xu</i>	
Comparative Study of Near-Lossless Compression by JPEG XR, JPEG 2000, and H.264 on 4K Video Sequences .....	29
<i>Wang Dan</i>	
A Retinex-Based Local Tone Mapping Algorithm Using $L_0$ Smoothing Filter .....	40
<i>Lei Tan, Xiaolin Liu, and Kaichuang Xue</i>	
A Fast Mode Decision Algorithm and Its Hardware Design for H.264/AVC Intra Prediction .....	48
<i>Wei Wang, Yuting Xie, Tao Lin, and Jie Hu</i>	
Research of Multi-focus Image Fusion Algorithm Based on Sparse Representation and Orthogonal Matching Pursuit .....	57
<i>Li Xuejun and Wang Minghui</i>	
Infrared Face Recognition Based on DCT and Partial Least Squares ....	67
<i>Zhihua Xie and Guodong Liu</i>	
Pipeline Architecture for High Speed License Plate Character Recognition .....	74
<i>Boyu Gu, Qiang Zhang, and Zhenhuan Zhao</i>	
Robust Dual-Kernel Tracking Using Both Foreground and Background .....	83
<i>Wangsheng Yu, Zhiqiang Hou, Xiaohua Tian, Lang Zhang, and Wanjuan Xu</i>	
Humanoid-Eye Imaging System Model with Ability of Resolving Power Computing .....	91
<i>Ma Huimin and Zhou Luyao</i>	
Color Cast Detection Method Based on Multi-feature Extraction .....	103
<i>Minjing Miao, Yuan Yuan, Juhua Liu, and Hanfei Yi</i>	

Research on an Extracting Method to Assist Manual Identification of Targets .....	110
<i>Yue Shi and Guoying Zhang</i>	
A Face Recognition under Varying Illumination .....	120
<i>Haodong Song, Xiaozhu Lin, and Zhanlin Liu</i>	
CS-FREAK: An Improved Binary Descriptor .....	129
<i>Jianyong Wang, Xuemei Wang, Xiaogang Yang, and Aigang Zhao</i>	
Lung Fields Segmentation Algorithm in Chest Radiography .....	137
<i>Guodong Zhang, Lin Cong, Liu Wang, and Wei Guo</i>	
Automatic Classification of Human Embryo Microscope Images Based on LBP Feature .....	145
<i>Liang Xu, Xuefeng Wei, Yabo Yin, Weizhou Wang, Yun Tian, and Mingquan Zhou</i>	
Robust and Accurate Calibration Point Extraction with Multi-scale Chess-Board Feature Detector .....	153
<i>Yang Liu, Yisong Chen, and Guoping Wang</i>	
A Mixed-Method Approach for Rapid Modeling of the Virtual Scene Building .....	165
<i>Pu Ren, Wenjian Wang, Mingquan Zhou, and Chongbin Xu</i>	
An Improved Method of Building Rapid 3D Modeling Based on Digital Photogrammetric Technique .....	175
<i>Zimin Zhang, Ying Zhou, Jian Cui, and Hao Luu</i>	
3-D Reconstruction of Three Views Based on Manifold Study .....	181
<i>Li Cong, Zhao Hongru, Fu Gang, and Peng Xingang</i>	
Distribution and Rendering of Real-Time Scene Based on the Virtual Reality System .....	192
<i>Chengfang Zhang and Guoping Wang</i>	
Probabilistic Model for Virtual Garment Modeling .....	203
<i>Shan Zeng, Fan Zhou, Ruomei Wang, and Xiaonan Luo</i>	
Dense 3D Reconstruction and Tracking of Dynamic Surface .....	213
<i>Jinlong Shi, Suqin Bai, Qiang Qian, Linbin Pang, and Zhi Wang</i>	
Scene Simulation for a New Type of Armored Equipment Simulator ....	224
<i>Guanghui Li, Qiang Liang, Wei Shao, and Xu-dong Fan</i>	
Study on the Key Technique of the Hill Shading Virtual Roaming System Based on XNA .....	230
<i>Hesong Lu, Zaijiang Tang, Qiang Liang, and Wei Shao</i>	

Study on MMO in Visual Simulation Application .....	239
<i>Liang Qiang, Fan Rui, Xu Renjie, and Du Jun</i>	
Towards the Representation of Virtual Gymnasia Based On Multi-dimensional Information Integration .....	249
<i>Xiangzhong Xu, Jiandong Yang, Haohua Xu, and Yaxin Tan</i>	
Night Vision Simulation of Drive Simulator Based on OpenGVS4.5 .....	257
<i>Zheng Changwei, Xue Qing, and Xu Wenchao</i>	
The Design and Implementation of Military Plotting System Based on Speech Recognition Technology .....	264
<i>Wei Shao, Guanghui Li, Xiying Huang, Qiang Liang, and Hesong Lu</i>	
Defect Detection in Fabrics Using Local Binary Patterns .....	274
<i>Pengfei Li, Xuan Lin, Junfeng Jing, and Lei Zhang</i>	
Research on Teeth Positioning Based on Wavelet Transform and Edge Detection .....	284
<i>Zhou Zhou, Guoxia Sun, and Tao Yang</i>	
The Orientation Angle Detection of Multiple Insulators in Aerial Image .....	294
<i>Zhenbing Zhao, Ning Liu, Mingxiao Xi, and Yajing Yan</i>	
Improved Robust Watermarking Based on Rational Dither Modulation .....	305
<i>Zairan Wang, Jing Dong, Wei Wang, and Tieniu Tan</i>	
The Research of Vehicle Tracking Based on Difference Screening and Coordinate Mapping .....	315
<i>Zhang Jun-yuan, Liu Wei-guo, Tong Bao-feng, and Wang Nan</i>	
Pathology Image Retrieval by Block LBP Based pLSA Model with Low-Rank and Sparse Matrix Decomposition .....	327
<i>Yushan Zheng, Zhiguo Jiang, Jun Shi, and Yibing Ma</i>	
Remote Sensing Image Change Detection Based on Low-Rank Representation .....	336
<i>Yan Cheng, Zhiguo Jiang, Jun Shi, Haopeng Zhang, and Gang Meng</i>	
Two New Methods for Locating Outer Edge of Iris .....	345
<i>Yujie Liu and Hong Tian</i>	
Effects of the Gridding to Numerical Simulation of the Armour-Piercing Warhead Penetration through the Steel Target.....	352
<i>Jun-qing Huang, Ya-long Fan Rui Ma, and Wei Shao</i>	
Author Index .....	359