Low Bit Rate Compression for SAR Image Based on Blocks Reordering and 3D Wavelet Transform .................................................................56
  Yuan Chen and Rong Zhang

Distribution-Based Active Contour Model for Medical Image Segmentation ........................................61
  Yanrong Guo, Jianguo Jiang, Shijie Hao, and Shu Zhan

Image Interpolation Using Autoregressive Model and Gauss-Seidel Optimization ........................................66
  Ketan Tang, Oscar C. Au, Lu Fang, Zhiding Yu, and Yuanfang Guo

Learning Based Adaptive Denoising Approach for Image Interpolation ..................................................70
  Zongliang Gan, Lina Qi, and Xiuchang Zhu

A Multilevel Parallel Intra Coding for H.264/AVC Based on CUDA .....................................................76
  Huayou Su, Nan Wu, Chunyuan Zhang, Mei Wen, and Ju Ren

Face Sketch-Photo Synthesis under Multi-dictionary Sparse Representation Framework ..................................................82
  Nannan Wang, Xinbo Gao, Dacheng Tao, and Xuelong Li

Efficient Image Denoising by MRF Approximation with Uniform-Sampled Multi-spanning-tree ................88
  Jun Sun, Hongdong Li, and Xuming He

Optical Flow with Harmonic Constraint and Oriented Smoothness .......................................................94
  Jie Zhao, Yuanquan Wang, and Huaibin Wang

A New Tree Structure for Weighted Dynamic Programming Based Stereo Algorithm ..........................100
  Tingbo Hu, Tao Wu, Jingze Song, Qixu Liu, and Bo Zhang

A New Two-Dimensional Direction Histogram Based Entropic Thresholding .........................................106
  Adiljan Yimit, Yoshihiro Hagihara, Tasuku Miyoshi, and Yukari Hagihara

Perceptual Saliency Driven Total Variation for Image Denoising Using Tensor Voting ........................111
  Liang Xiao, Lili Huang, and Fanbiao Zhang

Optimized-SSIM Based Quantization in Optical Remote Sensing Image Compression ..........................117
  Kai Yang and Hongxu Jiang

Texture Transfer in Frequency Domain ..................................................................................................123
  Xiang Zhang and Shiguang Liu

Hierarchical Joint Bilateral Filtering for Depth Post-Processing .............................................................129
  Qing-Qing Yang, Liang-Hao Wang, Dong-Xiao Li, and Ming Zhang

RSEM: An Accelerated Algorithm on Repeated EM .................................................................135
  Qinpei Zhao, Ville Hautamäki, and Pasi Fränti

Tensor Recovery via Multi-linear Augmented Lagrange Multiplier Method .........................................141
  Huachun Tan, Bin Cheng, Jianshuai Feng, Guangdong Feng, and Yujin Zhang

Quantitative Comparison of Segmentation Results from ADS40 Images in Swiss NFI ..........................147
  Zuyuan Wang, Ruedi Boesch, and Christian Ginzler
Watershed Transformation Based Identification of the Combustion Region in an Oxy-coal Flame Image ................................................................. 152
   Tian Qiu, Yong Yan, and Gang Lu

Subjective Quality Optimized Intra Mode Selection for H.264 I Frame Coding Based on SSIM .......................................................... 157
   Ziguan Cui and Xiuchang Zhu

A New Image Super-Resolution Method in the Wavelet Domain ........................................... 163
   Yuxiang Yang and Zengfu Wang

Single Image Multi-focusing Based on Local Blur Estimation ........................................... 168
   Yang Cao, Shuai Fang, and Feng Wang

Improved Non-local Iterative Back-Projection Method for Image Super-Resolution .............. 176
   Xiuju Liang and Zongliang Gan

A Medial Axis Extraction Algorithm for the Processing of Combustion Flame Images .......... 182
   Tian Qiu, Yong Yan, and Gang Lu

Adaptive Bilateral Filter Considering Local Characteristics ................................................. 187
   Lin Sun, Oscar C. Au, Ruobing Zou, Wei Dai, Xing Wen, Sijin Lin, and Jiali Li

Vision-Related MLS Image Deformation Using Saliency Map ............................................ 193
   Yong Zhang, Jianhuang Lai, and Xiaorong Du

Structure-Aware Image Completion with Texture Propagation ......................................... 199
   Di Sun, Li Yuan, Yi Zhang, Jiawan Zhang, and Gang Pan

Measurement Matrix of Compressive Sensing Based on Gram-Schmidt Orthogonalization ... 205
   Xiaofen Lin, Gang Lu, Jingwen Yan, and Wei Lin

An Algorithm of Planar Coded Pattern Recognition for Camera Calibration ....................... 211
   Yuzhou Wang and Guoping Wang

QR Iterative Subspace Identification and Its Application in Image Denoising ...................... 217
   Chanzi Liu and Qingchun Chen

Error Resilient Coding Based on Reversible Data Hiding and Redundant Slice ................... 223
   Jiajia Xu, Weiming Zhang, Nenghai Yu, Feng Zhu, and Biao Chen

Tree-Structured MRF Based Image Segmentation Combined with Advanced Means Shift Mode Detection ........................................................ 228
   Liye Sun and Kanzhi Wu

Double Compression Detection Based on Markov Model of the First Digits of DCT Coefficients ........................................................................ 234
   Lisha Dong, Xiangwei Kong, Bo Wang, and Xin'gang You

A Novel Robust Algorithm for Image Segmentation ...................................................... 238
   Qiwei Wang, Shouhong Wan, and Lihua Yue
Fusion Algorithm for Infrared-Visual Image Sequences ................................................................. 244
   Xin Wang and Gaolue Li

Inter-view Coding Correlation Based Error Concealment for Stereoscopic Video Transmission ............................................................ 249
   Dong Hu, Xiaochen Liu, and Yan Li

Improvement of Virtual View Rendering Based on Depth Image .......................................................... 254
   Dong Hu, Jianfei Sun, and Ping Xu

A New Super-resolution Reconstruction Method Combining Narrow Quantization Constraint Set and Motion Estimation for H.264 Compressed Video ................................................................. 258
   Dong Hu, Yingxue Zhao, and Peng Xiao

Minimum Spanning Tree Hierarchically Fusing Multi-feature Points and High-Dimensional Features for Medical Image Registration ................................................................. 263
   Shaomin Zhang, Lijia Zhi, Dazhe Zhao, and Hong Zhao

Single-Image Super-Resolution via Sparse Coding Regression ............................................................. 267
   Yi Tang, Yuan Yuan, Pingkun Yan, and Xuelong Li

IA (Image Analysis)

Near Infrared Face Image Quality Assessment System of Video Sequences .................................................. 275
   Jianfeng Long and Shutao Li

Invariant Image Recognition Using Radial Jacobi Moment Invariants ...................................................... 280
   Bin Xiao, Jian-Feng Ma, and Jiang-Tao Cui

A Classification Algorithm to Distinguish Image as Haze or Non-haze ...................................................... 286
   Xiaoliang Yu, Chuangbai Xiao, Mike Deng, and Li Peng

Matching Triangle Chain Codes ................................................................................................................. 290
   Su Yang, Erling Wei, and Yuanyuan Wang

Brain MR Image Tumor Segmentation with Ventricular Deformation ......................................................... 297
   Kai Xiao, Aboul Ella Hassanien, Yan Sun, and Edwin Kit Keong Ng

Gabor Texture Information for Face Recognition Using the Generalized Gaussian Model ................................................................. 303
   Lei Yu, Yan Ma, and Zijun Hu

Edge Saliency Map Detection with Texture Suppression ............................................................................... 309
   Huanhuan Ao and Nenghai Yu

Dynamic Background Subtraction Using Spatial-Color Binary Patterns .................................................... 314
   Wei Zhou, Yu Liu, Weiming Zhang, Liansheng Zhuang, and Nenghai Yu

Intervertebral Disc Shape Analysis with Geodesic Metric in Shape Space .................................................. 320
   Shijie Hao, Jianguo Jiang, Yanrong Guo, and Shu Zhan

Discriminative Features for Image Classification and Retrieval .................................................................... 325
   Shang Liu and Xiao Bai
Accurate Foreground Segmentation without Pre-learning .................................................. 331
   Zhanghui Kuang, Hao Zhou, and Kwan-Yee K. Wong

Lattice Boltzmann Method of Active Contour for Image Segmentation .......................... 338
   ZhiQiang Wang, ZhuangZhi Yan, and George Chen

Shape Matching Using Points Co-occurrence Pattern ....................................................... 344
   Yu Zhou, Junwei Wang, Quan Zhou, Xiang Bai, and Wenyu Liu

K-means: Clustering by Gradual Data Transformation ..................................................... 350
   Mikko Malinen and Pasi Fränti

Fast Alternating Minimization Method for Compressive Sensing MRI under Wavelet
   Sparsity and TV Sparsity .................................................................................................. 356
   Yonggui Zhu and I-Liang Chern

Inverse-degree Sampling for Spectral Clustering ............................................................... 362
   Haidong Gao, Yueting Zhuang, Fei Wu, and Jian Shao

Gabor-LBP Based Region Covariance Descriptor for Person Re-identification ............... 368
   Ying Zhang and Shutao Li

Segmenting the Subthalamic Nucleus Using Narrow Band Limited Variational Level
   Set Method ....................................................................................................................... 372
   Cong Xia, Jiansheng Chen, Chunhua Hu, Guangda Su, Hongwei Hao, and Yu Ma

An Automatic Matching Algorithm Based on SIFT Descriptors for Remote Sensing
   Ship Image ....................................................................................................................... 377
   Xin You and Nenghai Yu

A Rectangle Detection Method for Real-Time Extraction of Large Panel Edge ................ 382
   Zhe Wu, Qingjie Kong, Jiapeng Liu, and Yuncai Liu

A Robust and Compact Descriptor Based on Center-Symmetric LBP ................................ 388
   Jinwei Xiao and Gangshan Wu

Single Image Super Resolution Method Based on Edge Preservation ............................ 394
   Yaqiong Fan, Zongliang Gan, Yiwen Qiu, and Xiuchang Zhu

A New Method of Image Classification Based on Local Appearance and Context
   Information ....................................................................................................................... 400
   Yuhua Fan and Shiyin Qin

Efficient Multi-resolution Histogram Matching for Bag-of-Features ............................... 406
   Jiangtao Cui, Jianxin Tang, and Lian Jiang

Local Regression Model for Automatic Face Sketch Generation .................................... 412
   Naye Ji, Xiujuan Chai, Shiguang Shan, and Xilin Chen

Codebook Reconstruction with Word Correlation Feedback Mechanism ....................... 418
   Yuhang Zhao, Zhaoxiang Zhang, and Yunhong Wang

Segmentation Based on Routing Image Algorithms ......................................................... 424
   Hongzhe Yang, Jian Yang, Yongtian Wang, and Yue Liu
Weighted Local Binary Pattern Infrared Face Recognition Based on Weber’s Law ............................................................................................................................429
Zhihua Xie and Guodong Liu

Detecting Motion Patterns in Dynamic Crowd Scenes ..................................................................................................................................................................434
Chongjing Wang, Xu Zhao, Yi Zou, and Yuncai Liu

Robust Moving Cast Shadows Detection and Removal with Reliability Checking
of the Color Property .................................................................................................................................................................................................440
Xue Li, Yu-Jin Zhang, and Bao-Di Liu

Automatic Bridge Extraction for Optical Images ........................................................................................................................................................................446
Duo-Yu Gu, Cheng-Fei Zhu, Hao Shen, Jin-Zong Hu, and Hong-Xing Chang

Dynamic Video Segmentation via a Novel Recursive Kernel Density Estimation ........................................................................................................................................452
Qingsong Zhu, Guanzheng Liu, and Yaoqin Xie

The Research of Algorithm for Handwritten Character Recognition in Correcting
Assignment System ........................................................................................................................................................................................................456
Huiqin Lin, Wennuan Ou, and Tonglin Zhu

Saliency Detection: A Self-Adaption Sparse Representation Approach ........................................................................................................................................461
Gaoxiang Zhang, Feng Jiang, Debin Zhao, Xiaoshuai Sun, and Shaohui Liu

A Novel Ship Detection Method Based on Sea State Analysis from Optical Imagery ........................................................................................................................................466
Guang Yang, Qichao Lu, and Feng Gao

A Modification Based on Butterfly Subdivision Scheme .........................................................................................................................................................472
Lichun Gu, Jinjin Zheng, and Chuangyin Dang

Image Class Segmentation via Conditional Random Field over Weighted Histogram Classifier .............................................................................................................................................477
Fei Xue and Yu-Jin Zhang

Local Semantic Classification of Natural Image Based on Spatial Context ..................................................................................................................................482
Weining Wang, Jingjian Yi, Haopan Li, and Yin Lu

Fast Local Scale Control Based Blur Edge Detection .........................................................................................................................................................488
Yuan Wu, Weifeng Wu, Qian Huang, and Xiao Dong

A Multiview Approach to Robust Detection in the Presence of Cast Shadows ........................................................................................................................................494
Ming Xu, Jie Ren, Dongyong Chen, Jeremy S. Smith, and Zhechi Liu

Robust Face Recognition by Sparse Local Features from a Single Image under Occlusion ..................................................................................................................................500
Na Liu, Jianhuang Lai, and Huining Qiu

Depth Based View Synthesis with Artifacts Removal for FTV .........................................................................................................................................................506
Li Yu, Sen Xiang, Huiping Deng, and Peng Zhou

Semi-supervised Classification via Low Rank Graph .................................................................................................................................................................511
Liansheng Zhuang, Haoyuan Gao, Jingjing Huang, and Nenghai Yu

A Double-Layer Model for Foreground Detection from Video Sequence ..................................................................................................................................517
Hunaxi Liu, Junchi Yan, Jun Zhu, Xiaowei Lv, Xiong Li, Tianhong Zhu, and Yuncai Liu
A Novel Algorithm for Ship Detection Based on Dynamic Fusion Model of Multi-feature and Support Vector Machine ................................................................. 521
   Yu Xia, Shouhong Wan, and Lihua Yue

Automatic Classification of Ultraviolet Aurora Images Based on Texture and Shape Features ................................................................. 527
   Shenmiao Han, Zhensen Wu, Guangli Wu, and Jun Tan

Integrating kAS and SIFT-like Descriptor for Image Description ......................................................................................................................... 533
   Mianyou Shang, Jing Pan, Yanwei Pang, and Yuan Yuan

Local Dominant Orientation Based Mutual Information for Multisensor Template Matching ................................................................................................................. 538
   Yuzhuang Yan, Yongbin Zheng, Wanying Xu, and Xinsheng Huang

A Change Detection Method for Man-Made Objects in SAR Images Based on Curvelet and Level Set ................................................................. 543
   Juan Su, Renming Wang, and Kai Du

Face Recognition Using Nonlinear Regression ................................................................................................................................. 548
   Lin He and Jing Pan

Hand Detection Using Robust Color Correction and Gaussian Mixture Model ................................................................................................................................. 553
   Shipeng Xie and Jing Pan

Adaptive Background Model for Arbitrary-Long Stationary Target ................................................................................................................................. 558
   Peng Li, Chenhao Wang, Chongjing Wang, and Yuncai Liu

Metrics for Objective Evaluation of Background Subtraction Algorithms ................................................................................................................................. 562
   Leyuan Liu and Nong Sang

Ancient Porcelain Shards Classifications Based on Color Features ................................................................................................................................. 566
   Pengbo Zhou, Kegang Wang, and Wuyang Shui

Lane Detection Based on Visual Attention ................................................................................................................................................................................................. 570
   Jian Li, Xiangjing An, and Hangen He

Multi-scale and Multi-orientation Local Feature Extraction for Lane Detection Using High-Level Information ................................................................................................................................. 576
   Xiangjing An, Jian Li, Erke Shang, and Hangen He

A Space Target Recognition Method Based on Compressive Sensing ................................................................................................................................. 582
   Yuemei Ren, Yangning Zhang, Ying Li, Jianyu Huang, and Jianjiang Hui

Face Recognition with Multi-feature Joint Representation .............................................................................................................................................. 587
   Jie Zhu and Zhen-min Tang

Visual Object Localization in Image Collections ................................................................................................................................................................................................. 593
   Yanyun Qu and Han Liu

Supervised Sparse Patch Coding towards Misalignment-Robust Face Recognition ................................................................................................................................. 599
   Congyan Lang, Bin Cheng, Songhe Feng, and Xiaotong Yuan
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast Pedestrian Detection with Laser and Image Data Fusion</td>
<td>605</td>
</tr>
<tr>
<td>Bo Wu, Jixiang Liang, Qixiang Ye, Zhenjun Han, and Jianbin Jiao</td>
<td></td>
</tr>
<tr>
<td>Research on License Plate Detection Based on Salient Feature under Complex Background</td>
<td>609</td>
</tr>
<tr>
<td>Qun-Wei Yang, Chen-Hui Yang, Cui-Hua Li, and Han-Zi Wang</td>
<td></td>
</tr>
<tr>
<td>Compounded Regularization and Fast Algorithm for Compressive Sensing</td>
<td>616</td>
</tr>
<tr>
<td>Liang Xiao, Jun Shao, Lili Huang, and Zhihui Wei</td>
<td></td>
</tr>
<tr>
<td>Bag-of-Features Based Classification of Breast Parenchymal Tissue in the Mammogram via Jointly Selecting and Weighting Visual Words</td>
<td>622</td>
</tr>
<tr>
<td>Jingyan Wang, Yongping Li, Ying Zhang, Honglan Xie, and Chao Wang</td>
<td></td>
</tr>
</tbody>
</table>

**IU (Image Understanding)**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image Annotation with Multiple Quantization</td>
<td>631</td>
</tr>
<tr>
<td>Qiaojin Guo, Ning Li, Yubin Yang, and Gangshan Wu</td>
<td></td>
</tr>
<tr>
<td>A Robust Approach for Anti-jamming Target Tracking in Forward Looking Infrared Imagery</td>
<td>636</td>
</tr>
<tr>
<td>Guanhua Su, Huimin Ma, and Yu Hou</td>
<td></td>
</tr>
<tr>
<td>A Method for Detection and Classification of Glass Defects in Low Resolution Images</td>
<td>642</td>
</tr>
<tr>
<td>Jie Zhao, Qing-Jie Kong, Xu Zhao, Jiapeng Liu, and Yuncai Liu</td>
<td></td>
</tr>
<tr>
<td>Accelerating Vehicle Detection in Low-Altitude Airborne Urban Video</td>
<td>648</td>
</tr>
<tr>
<td>Xianbin Cao, Renjun Lin, Pingkun Yan, and Xuelong Li</td>
<td></td>
</tr>
<tr>
<td>Real-Time Long-Range Lane Detection and Tracking for Intelligent Vehicle</td>
<td>654</td>
</tr>
<tr>
<td>Xin Liu, Bin Dai, Jinze Song, Hangen He, and Bo Zhang</td>
<td></td>
</tr>
<tr>
<td>Robust Visual Tracking by Integrating Lucas-Kanade into Mean-Shift</td>
<td>660</td>
</tr>
<tr>
<td>Lurong Shen, Xinsheng Huang, Wanying Xu, and Yongbin Zheng</td>
<td></td>
</tr>
<tr>
<td>Real-Time Multiple Vehicles Tracking with Occlusion Handling</td>
<td>667</td>
</tr>
<tr>
<td>Wei Fang, Yong Zhao, Yule Yuan, and Kai Liu</td>
<td></td>
</tr>
<tr>
<td>KLT Feature Based Vehicle Detection and Tracking in Airborne Videos</td>
<td>673</td>
</tr>
<tr>
<td>Xianbin Cao, Jinhe Lan, Pingkun Yan, and Xuelong Li</td>
<td></td>
</tr>
<tr>
<td>Discriminative Human Pose Estimation Based on the Bandelet2 Image Descriptor</td>
<td>679</td>
</tr>
<tr>
<td>Hong Han, Minglei Tong, Jingxiang Gou, Rui Wang, and Guangjie Feng</td>
<td></td>
</tr>
<tr>
<td>A New Method for Passive Millimeter Wave Image Registration by Applying Super Resolution</td>
<td>685</td>
</tr>
<tr>
<td>Quanliang Huang, Kun Sun, and Shuiqing Liu</td>
<td></td>
</tr>
<tr>
<td>A New Graph Constructor for Semi-supervised Discriminant Analysis via Group Sparsity</td>
<td>691</td>
</tr>
<tr>
<td>Haoyuan Gao, Liansheng Zhuang, and Nenghai Yu</td>
<td></td>
</tr>
</tbody>
</table>
A Bag-of-Feature Model for Video Semantic Annotation ................................................................. 696
   Youdong Ding, Jianfei Zhang, Jun Li, and Xiaocheng Wei

Fusion of Object and Scene Based on IHS Transform and SFIM .................................................... 702
   Youdong Ding, Xiaocheng Wei, Haibo Pang, and Jianfei Zhang

A Feature-Based Object Tracking Method Using Online Template Switching
and Feature Adaptation ............................................................................................................. 707
   Lixin Fan

Tracking Based on SURF and Superpixel .......................................................................................... 714
   Yu Liu, Wei Zhou, Huagang Yin, and Nenghai Yu

Covariance Matching for PDE-based Contour Tracking ............................................................... 720
   Bo Ma and Yuwei Wu

Geometric Motion Flow (GMF): A New Feature for Traffic Surveillance ........................................ 726
   Yawen Fan, Hua Yang, Shibao Zheng, and Hang Su

An Abnormal Event Recognition in Crowd Scene ........................................................................ 731
   Honghong Liao, Jinhai Xiang, Weiping Sun, Qing Feng, and Jianghua Dai

Motion Capture of Hand Movements Using Stereo Vision for Minimally Invasive
Vascular Interventions .................................................................................................................. 737
   Dongjin Huang, Wen Tang, Youdong Ding, Taoruan Wan, Xuechun Wu, and Yimin Chen

A Novel Robust Laser Tracking System with Automatic Environment Adaptation
and Keystone Correction ............................................................................................................. 743
   Muhammad Habib Mahmood, Muhammad Ali Khalid, Ali Gohar Malhi,
   and Adnan Ali Khan

Performance Evaluation for IR Small Target Tracking Algorithm ................................................. 749
   Yi-qiang Fang and Xiang Fan

LIDAR-based Long Range Road Intersection Detection .............................................................. 754
   Tongtong Chen, Bin Dai, Daxue Liu, and Zhao Liu

Spontaneous Facial Expression Recognition Based on Feature Point Tracking ............................ 760
   Shan He, Shangfei Wang, and Yanpeng Lv

Sparse Feature Learning for Visual Tracking by Least Absolute Shrinkage
and Selection Operator ............................................................................................................... 766
   Minglei Tong, Junchi Yan, Huanxi Liu, and Hong Han

Combining Mean-Shift and Particle Filter for Object Tracking .................................................. 771
   Da Tang and Yu-Jin Zhang

Visual Saliency Based Aerial Video Summarization by Online Scene Classification ....................... 777
   Jiewei Wang, Yunhong Wang, and Zhaoxiang Zhang

Smile Expression Classification Using the Improved BIF Feature .................................................. 783
   Lihua Guo
Packed Dense Interest Points for Scene Image Retrieval .......................................................... 789
  Han Wang, Peng Teng, and Wei Liang
Affective Video Classification Based on Spatio-temporal Feature Fusion ........................................ 795
  Sicheng Zhao, Hongxun Yao, and Xiaoshuai Sun
Global Trajectory Construction across Multi-cameras via Graph Matching ........................................ 801
  Xiaobin Zhu, Jing Liu, Jinqiao Wang, Wei Fu, Hanqing Lu, and Yikai Fang
Abnormal Behavior Detection via Sparse Reconstruction Analysis of Trajectory ................................ 807
  Ce Li, Zhenjun Han, Qixiang Ye, and Jianbin Jiao
Target Tracking Based on Wavelet Features in the Dynamic Image Sequence .................................... 811
  Qi Zhang, Jinlin Zhang, and Ting Rui
A PFT Visual Attention Detection Model Using Bayesian Framework ............................................. 816
  Chaoke Pei, Li Gao, Donghui Wang, and Ying Hong
Video Reshuffling with Narratives toward Effective Video Browsing .............................................. 821
  Wei Fu, Jinqiao Wang, Xiaobin Zhu, Hanqing Lu, and Songde Ma

CG (Computer Graphics)

Query by Virtual Example: Video Retrieval Using Example Shots Created by Virtual Reality Techniques ................................................................................................................................. 829
  Kimiaki Shirahama and Kuniaki Uehara
Three Dimensional Saliency Calculation Using Splatting ..................................................................... 835
  Daniel Schiffner and Detlef Krömker
3D Object Presentation Mapping ........................................................................................................ 841
  Effendy Eka Saputra, Hung-Wei Hsu, and Wen-Kai Tai
GPU Based Implementation of 3DTV System ...................................................................................... 847
  Liang-Hao Wang, Jing Zhang, Shao-Jun Yao, Dong-Xiao Li, and Ming Zhang
Visualization Three-Dimensional Geological Modeling Using CUDA ............................................. 852
  Meng Li and Lanfang Dong
Photographic Composite Detection Using Two Circles ......................................................................... 858
  Shuyi Zhu, Xiaochun Cao, and Handong Zhao
A Real-Time Isoline Tracing Algorithm Based on CUDA .................................................................. 864
  Lanfang Dong, Jiahui Chen, and Jin Wang
Bilateral Filtering Based User-Controllable Multi-exemplars Texture Synthesis .................................. 868
  Yi Zhang, Shan Wang, Jinyan Chen, Jiawan Zhang, and Peng Yang
A Spherical Cover Algorithm to Reconstruct 3D Face Model .......................................................... 873
  Xinyi Zhu, Guohua Geng, and Chao Wen
Porous Media Precise Reconstruction and Porosity Fluid Animated Simulation .................................. 877
  Bo Song, Lanfang Dong, and Detang Lu
Shader Based Polygon Stitching and Its Application in Deformable Terrain Simulation .........................................................885
   Xiao Chen and Ying Zhu

TA (Technique Applications)
Robust Sparse Tensor Decomposition by Probabilistic Latent Semantic Analysis .................................................................893
   Yanwei Pang, Zhao Ma, Jing Pan, and Yuan Yuan
An Effective Classification Approach for EEG-based BCI System ...............................................................................................897
   Mingzhao Li and Jing Pan
Measurement of Safe Driving Distance Based on Stereo Vision ..........................................................................................902
   A-Lin Hou, Xue Cui, Ying Geng, Wen-Ju Yuan, and Jie Hou
Lane Detection Using Steerable Filters and FPGA-based Implementation ...........................................................................908
   Erke Shang, Jian Li, Xiangjing An, and Hangen He
An Efficient Authorship Protection Scheme for Shared Multimedia Content .............................................................................914
   Mohamed El-Hadedy, Georgios Pitsilis, and Svein J. Knapskog
Classification of Vehicle Make by Combined Features and Random Subspace Ensemble ........................................................................................................920
   Bailing Zhang and Chihang Zhao
Classification of Driving Postures by Support Vector Machines ........................................................................................926
   Chihang Zhao, Bailing Zhang, Jie Lian, Jie He, Tao Lin, and Xiaoxiao Zhang
ContextRank: Personalized Tourism Recommendation by Exploiting Context Information of Geotagged Web Photos ........................................................................931
   Kai Jiang, Peng Wang, and Nenghai Yu
Novel Smile Feature Extraction Algorithm Using Improved Gabor for Mobile Phone Platform ..........................................................................................938
   Wei-guo Yang and Shuo-he Zhen
On-line Signature Verification Using Graph Representation ...............................................................................................943
   Kaiyue Wang, Yunhong Wang, and Zhaoxiang Zhang
A Novel Cued-recall Graphical Password Scheme ................................................................................................................949
   Xiyang Liu, Jinhua Qu, Licheng Ma, Haichang Gao, and Zhongjie Ren
A Hardware Coprocessor Integrated with OpenCV for Edge Detection Using Cellular Neural Networks ..................................................................................957
   Marco Aurelio Nuno-Maganda, Miguel Morales-Sandoval, and Cesar Torres-Huitzil
D-Note: Computer-Aided Digital Note Taking System on Physical Book .............................................................................963
   Dawei Xie, Zhenkun Zhou, and Jiangqin Wu
Content-Based Design Patent Image Retrieval Using Structured Features and Multiple Feature Fusion ..........................................................................................969
   Lei Zhu, Hai Jin, Ran Zheng, Qin Zhang, Xia Xie, and Mingrui Guo
A Robust Traffic Sign Recognition System for Intelligent Vehicles ........................................................................................975
   Zhixie Chen, Jing Yang, and Bin Kong
Diversifying the Image Relevance Reranking with Absorbing Random Walks ................................................................. 981
  Zhong Ji, Yuting Su, Yanwei Pang, and Xiaojie Qu

Visual Word Pairs for Similar Image Search .................................................................................................................. 987
  Yuan Li and Xiaochun Cao

Aerial Video Images Registration Based on Optimal Derivative Filters
with Scene-Adaptive Corners .............................................................................................................................................. 993
  Meng Yi, Bao-long Guo, and Chun-man Yan

Quasi-convex Optimization of Metrics in Biometric Score Fusion ....................................................................................... 998
  Yanmin Gong, Jiansheng Chen, and Guangda Su

Visualization and Analysis of Information for Checkin in LBS Mode ................................................................................... 1004
  Changbo Wang, Linling Ma, and Qunyan Zhang

Graph Partition Based Bundle Adjustment for Structured Dataset ......................................................................................... 1010
  Yuanfan Xie, Lixin Fan, and Yihong Wu

An Effective Image Retrieval Technique Based on Color Perception .................................................................................... 1017
  Shouhong Wan, Peiquan Jin, and Lihua Yue

Cascade-Based License Plate Localization with Line Segment Features and Haar-Like
Features .................................................................................................................................................................................. 1023
  Yu Peng, Min Xu, Jesse. S. Jin, Suhuai Luo, and Gang Zhao

The MCF Model: Utilizing Multiple Colors for Face Recognition .......................................................................................... 1029
  Billy Li, Senjian An, Wanquan Liu, and Aneesh Krishna

Boosted Learning of Visual Word Weighting Factors for Bag-of-Features Based
Medical Image Retrieval .................................................................................................................................................................. 1035
  Jingyan Wang, Yongping Li, Ying Zhang, Honglan Xie, and Chao Wang

Author Index