

Table of Contents

A Blind Image Wavelet-Based Watermarking Using Interval Arithmetic	1
<i>Teruya Minamoto, Kentaro Aoki, and Mitsuaki Yoshihara</i>	
Hand Gesture Spotting Based on 3D Dynamic Features Using Hidden Markov Models	9
<i>Mahmoud Elmezain, Ayoub Al-Hamadi, and Bernd Michaelis</i>	
Objective Quality Evaluation of Laser Markings for Assembly Control	17
<i>Jost Schnee, Norbert Bachfischer, Dirk Berndt, Matthias Hübner, and Christian Teutsch</i>	
An Improved Object Detection and Contour Tracking Algorithm Based on Local Curvature	25
<i>Jung-Ho Lee, Fang Hua, and Jong Whan Jang</i>	
An Efficient Method for Noisy Cell Image Segmentation Using Generalized α -Entropy	33
<i>Samy Sadek, Ayoub Al-Hamadi, Bernd Michaelis, and Usama Sayed</i>	
An Algorithm for Moving Multi-target Prediction in a Celestial Background	41
<i>Lu Zhang, Bingliang Hu, Yun Li, and Weiwei Yu</i>	
Automatic Control Signal Generation of a CCD Camera for Object Tracking	48
<i>Jin-Tae Kim, Yong-In Yun, and Jong-Soo Choi</i>	
An Efficient Approach for Region-Based Image Classification and Retrieval	56
<i>Samy Sadek, Ayoub Al-Hamadi, Bernd Michaelis, and Usama Sayed</i>	
An Improved Design for Digital Audio Effect of Flanging	65
<i>Jianping Chen, Xiaodong Ji, Xiang Gu, and Jinjie Zhou</i>	
Robust Speech Enhancement Using Two-Stage Filtered Minima Controlled Recursive Averaging	72
<i>Negar Ghourchian, Sid-Ahmed Selouani, and Douglas O'Shaughnessy</i>	
Automatic Colon Cleansing in CTC Image Using Gradient Magnitude and Similarity Measure	82
<i>Krisorn Chunhapongpipat, Laddawan Vajragupta, Bundit Chaopathomkul, Nagul Cooharajanane, and Rajalida Lipikorn</i>	

A Scale and Rotation Invariant Interest Points Detector Based on Gabor Filters	90
<i>Wanying Xu, Xinsheng Huang, Yongbin Zheng, Yuzhuang Yan, and Wei Zhang</i>	
Signature Verification Based on Handwritten Text Recognition	98
<i>Serestina Viriri and Jules-R. Tapamo</i>	
Effect of Image Linearization on Normalized Compression Distance	106
<i>Jonathan Mortensen, Jia Jie Wu, Jacob Furst, John Rogers, and Daniela Raicu</i>	
A Comparative Study Of of Blind Speech Separation Using Subspace Methods and Higher Order Statistics	117
<i>Yasmina Benabderrahmane, Sid Ahmed Selouani, Douglas O'Shaughnessy, and Habib Hamam</i>	
Automatic Fatigue Detection of Drivers through Yawning Analysis	125
<i>Tayyaba Azim, M. Arfan Jaffar, M. Ramzan, and Anwar M. Mirza</i>	
GA-SVM Based Lungs Nodule Detection and Classification	133
<i>M. Arfan Jaffar, Ayyaz Hussain, Fauzia Jabeen, M. Nazir, and Anwar M. Mirza</i>	
Link Shifting Based Pyramid Segmentation for Elongated Regions	141
<i>Milos Stojmenovic, Andres Solis Montero, and Amiya Nayak</i>	
A Robust Algorithm for Fruit-Sorting under Variable Illumination	153
<i>Janakiraman L. Kausik and Gopal Aravamudhan</i>	
Selection of Accurate and Robust Classification Model for Binary Classification Problems	161
<i>Muhammad A. Khan, Zahoor Jan, M. Ishtiaq, M. Asif Khan, and Anwar M. Mirza</i>	
Robust Edge-Enhanced Fragment Based Normalized Correlation Tracking in Cluttered and Occluded Imagery	169
<i>Muhammad Imran Khan, Javed Ahmed, Ahmad Ali, and Asif Masood</i>	
Robust and Imperceptible Watermarking of Video Streams for Low Power Devices	177
<i>Muhammad Ishtiaq, M. Arfan Jaffar, Muhammad A. Khan, Zahoor Jan, and Anwar M. Mirza</i>	
A New Ensemble Scheme for Predicting Human Proteins Subcellular Locations	185
<i>Abdul Majid and Tae-Sun Choi</i>	

Designing Linear Phase FIR Filters with Particle Swarm Optimization and Harmony Search	193
<i>Abdolreza Shirvani, Kaveh Khezri, Farbod Razzazi, and Caro Lucas</i>	
Blind Image Steganalysis Based on Local Information and Human Visual System	201
<i>Soodeh Bakhshandeh, Javad Ravan Jamjah, and Bahram Zahir Azami</i>	
An Effective Combination of MPP Contour-Based Features for Off-Line Text-Independent Arabic Writer Identification	209
<i>Mohamed Nidhal Abdi, Maher Khemakhem, and Hanene Ben-Abdallah</i>	
Ringling Artifact Removal in Digital Restored Images Using Multi-resolution Edge Map	221
<i>Sangjin Kim, Sinyoung Jun, Eunsung Lee, Jeongho Shin, and Joonki Paik</i>	
Upmixing Stereo Audio into 5.1 Channel Audio for Improving Audio Realism.....	228
<i>Chan Jun Chun, Yong Guk Kim, Jong Yeol Yang, and Hong Kook Kim</i>	
Multiway Filtering Based on Multilinear Algebra Tools	236
<i>Salah Bourennane and Caroline Fossati</i>	
LaMOC – A Location Aware Mobile Cooperative System	250
<i>Junzhong Gu, Liang He, and Jing Yang</i>	
Modelling of Camera Phone Capture Channel for JPEG Colour Barcode Images.....	259
<i>Keng T. Tan, Siong Khai Ong, and Douglas Chai</i>	
Semantic Network Adaptation Based on QoS Pattern Recognition for Multimedia Streams	267
<i>Ernesto Exposito, Mathieu Gineste, Myriam Lamolle, and Jorge Gomez</i>	
Active Shape Model-Based Gait Recognition Using Infrared Images	275
<i>Daehee Kim, Seungwon Lee, and Joonki Paik</i>	
About Classification Methods Based on Tensor Modelling for Hyperspectral Images.....	282
<i>Salah Bourennane and Caroline Fossati</i>	
Comparative Analysis of Wavelet-Based Scale-Invariant Feature Extraction Using Different Wavelet Bases	297
<i>Joohyun Lim, Youngouk Kim, and Joonki Paik</i>	

A Novel Video Segmentation Algorithm with Shadow Cancellation and Adaptive Threshold Techniques	304
<i>C.P. Yasira Beevi and S. Natarajan</i>	
Considerations of Image Compression Scheme Hiding a Part of Coded Data into Own Image Coded Data	312
<i>Hideo Kuroda, Makoto Fujimura, and Kazumasa Hamano</i>	
Binarising SIFT-Descriptors to Reduce the Curse of Dimensionality in Histogram-Based Object Recognition	320
<i>Martin Stommel and Otthein Herzog</i>	
Author Index	329