

Contents

ix	<i>Conference Committee</i>
xi	<i>Introduction</i>

IMAGE SYSTEMS, SIGNAL PROCESSING, AND SECURITY

9069 02	Mammographic mass detection based on extended concentric morphology model [9069-1] Y. Li, H. Chen, Beijing Jiaotong Univ. (China)
9069 03	Realistic facial animation generation based on facial expression mapping [9069-2] H. Yu, Univ. of Portsmouth (United Kingdom); O. Garrod, R. Jack, P. Schyns, Univ. of Glasgow (United Kingdom)
9069 04	Simulation of ink diffusion on Xuan paper [9069-3] D. Fan, H. Li, East China Normal Univ. (China)
9069 05	Image super resolution with adaptive edge enhancement algorithm [9069-4] J. Ngermplubpla, O. Chitsobhuk, King Mongkut's Institute of Technology Ladkrabang (Thailand)
9069 06	Graph-based image completion using patch offsets and structure feature [9069-5] W. Xue, R. Zhang, Univ. of Science and Technology of China (China)
9069 07	Fingertips detection for human computer interaction system [9069-6] Md. J. Alam, Deakin Univ. (Australia); G. Nasierding, Xinjiang Normal Univ. (China); A. Sajjanhar, M. Chowdhury, Deakin Univ. (Australia)
9069 08	A geometric distortion correction method for lithographic watermarked authentication images [9069-7] Y. Xie, J. Li, J. Wang, C. Liu, Hunan Univ. of Technology (China)
9069 09	Parameter identification of blur image based on image gradient [9069-8] X. Peng, X. Zhao, Z. Wang, National Univ. of Defense Technology (China)
9069 0A	DCT-based just noticeable distortion for color image/video [9069-10] K.-C. Liu, Taiwan Hospitality and Tourism College (Taiwan)
9069 0B	Semi-automatic 2D-to-3D conversion of human-centered videos enhanced by age and gender estimation [9069-11] M. B. Fard, U. Bayazit, Istanbul Technical Univ. (Turkey)
9069 0C	Anisotropic progressive photon mapping [9069-12] X. Liu, Institute of Software (China) and Univ. of Chinese Academy of Sciences (China); C. Zheng, Institute of Software (China)

- 9069 OD **The extraction of vascular axis based on signed distance function** [9069-13]
Q. Hong, L. Chen, B. Wang, Q. Wu, Xiamen Univ. (China)
- 9069 OE **Study on global cloud computing research trend** [9069-14]
F. Ma, Guizhou Normal Univ. (China) and Wuhan Univ. (China); N. Zhan, Wuhan Univ. (China)
- 9069 OF **A survey on the visualization and reconstruction of vasculatures** [9069-15]
Q. Hong, Xiamen Univ. (China)
- 9069 OG **Automated identification of mitochondrial regions in complex intracellular space by texture analysis** [9069-16]
T. D. Pham, Univ. of Aizu (Japan)
- 9069 OH **H.264/AVC digital fingerprinting based on spatio-temporal just noticeable distortion** [9069-17]
K. Ait Saadi, Ctr. de Développement des Technologies Avancées (Algeria); A. Bouridane, Northumbria Univ. (United Kingdom); A. Guessoum, Saad Dahlab Univ. Blida (Algeria)
- 9069 OI **Pipeline inwall 3D measurement system based on the cross structured light** [9069-20]
D. Shen, Z. Lin, L. Xue, Q. Zheng, Z. Wang, Shanghai Univ. (China)
- 9069 OJ **Analysis of artificially illuminated static indoor scenes** [9069-21]
W. K. Lai, B. K. Yeap, L. L. Lim, Univ. Tunku Abdul Rahman (Malaysia); T. H. Maul, The Univ. of Nottingham Malaysia Campus (Malaysia)
- 9069 OK **Hepatic vessel segmentation from computed tomography using three-dimensional hyper-complex edge detection operator** [9069-22]
Y. Ma, X. Li, South China Normal Univ. (China)
- 9069 OL **A study of extraction of petal region on flower picture using HSV color information** [9069-23]
Y. Yanagihara, R. Nakayama, Ehime Univ. (Japan) and Daikin Industries, Ltd. (Japan)
- 9069 OM **Totally blind image quality assessment evaluator** [9069-24]
S. Abdalmajeed, J. Shuhong, Harbin Engineering Univ. (China); L. Wei, Beijing Institute of Astronautical System Engineering (China)
- 9069 ON **Iterative contextual CV model for liver segmentation** [9069-25]
H. Ji, J. He, X. Yang, Shanghai Jiao Tong Univ. (China) and Key Lab. of System Control and Information Processing (China)
- 9069 OO **Estimation of human emotions using thermal facial information** [9069-26]
H. Nguyen, K. Kotani, F. Chen, Japan Advanced Institute of Science and Technology (Japan); B. Le, Univ. of Science (Viet Nam)
- 9069 OP **Analyzing the effect of the distortion compensation in reversible watermarking** [9069-28]
S. Kim, H. J. Kim, Korea Univ. (Korea, Republic of)
- 9069 OQ **Reversible watermarking using edge based difference modification** [9069-29]
X. Qu, S. Kim, H. Kim, Korea Univ. (Korea, Republic of)

- 9069 OR **Anomaly detection in hyperspectral imagery based on low-rank and sparse decomposition** [9069-30]
X. Cui, Y. Tian, L. Weng, Y. Yang, Institute of Automation (China)
- 9069 OS **A method for affine invariant curve smoothing** [9069-31]
T. Nishida, T. Toriu, Osaka City Univ. (Japan)
- 9069 OT **Touch interface for markless AR based on Kinect** [9069-32]
C.-T. Hsieh, T.-K. Kuo, Tamkang Univ. (Taiwan); H.-C. Wang, Y.-K. Wu, L.-C. Chang, Institute for Information Industry (Taiwan)
- 9069 OU **Tensor decomposition-based color image watermarking** [9069-33]
Y. He, Beijing Institute of Technology (China) and Xi'an Univ. of Technology (China); W. Liang, Beijing Institute of Technology (China); J. Liang, Xi'an Univ. of Technology (China); M. Pei, Beijing Institute of Technology (China)
- 9069 OV **Short-term forecasting of cloud images using local features** [9069-34]
W. Jiang, F. Su, Beijing Univ. of Posts and Telecommunications (China); J. Zhang, IBM Research–China (China)
- 9069 OW **Belief propagation stereo matching algorithm using ground control points** [9069-36]
Y. Yang, Q. Liang, L. Niu, Q. Zhang, Communication Univ. of China (China)
- 9069 OX **Line drawing simplification by stroke translation and combination** [9069-37]
Y. Chien, W.-C. Lin, T.-S. Huang, J.-H. Chuang, National Chiao Tung Univ. (Taiwan)
- 9069 OY **Research on the three-dimensional measurement system based on the laser speckle projection** [9069-41]
L. Liang, W. Zhao, T. Yue, P. Duan, China Aerodynamics Research and Development Ctr. (China)
- 9069 OZ **Robust visual tracking via spatio-temporal cue integration** [9069-42]
Y. He, M. Pei, M. Yang, Y. Wu, W. Liang, Beijing Institute of Technology (China)
- 9069 10 **Low-complexity demosaicing via multiscale gradients** [9069-44]
C.-Y. Su, Y.-H. Chen, National Taiwan Normal Univ. (Taiwan)
- 9069 11 **Statistical based MQ arithmetic coder** [9069-46]
N. Noikaew, O. Chitsobhuk, King Mongkut's Institute of Technology Ladkrabang (Thailand)
- 9069 12 **Automatic image enhancement based on multi-scale image decomposition** [9069-47]
L. Feng, Z. Wu, L. Pei, X. Long, BeiHang Univ. (China)
- 9069 13 **Offline signature verification using local binary pattern and octave pattern** [9069-48]
S. Ahlawat, A. Goel, S. Prasad, P. Singh, Laxmi Niwas Mittal Institute of Information Technology (India)
- 9069 14 **An evaluation of color features for a resistor color classification under various illumination situations** [9069-49]
Y. Mitani, Ube National College of Technology (Japan); Y. Hamamoto, Yamaguchi Univ. (Japan)

- 9069 15 **Adaptive pixel-selection using chaotic map lattices for image cryptography** [9069-51]
J. Sittigorn, K. Paithoonwattanakij, C. Surawatpunya, King Mongkut's Institute of Technology Ladkrabang (Thailand)
- 9069 16 **A robust and fast line segment detector based on top-down smaller eigenvalue analysis** [9069-52]
D. Liu, Y. Wang, Z. Tang, X. Lu, Peking Univ. (China)
- 9069 17 **Performance evaluation in color face hallucination with error regression model in MPCA subspace method** [9069-55]
K. Asavaskulkiet, Mahidol Univ. (Thailand)
- 9069 18 **Vector features for image matching and image registration** [9069-57]
J. Liang, Y. Zhou, East China Univ. of Science and Technology (China)
- 9069 1A **A new approach to preserve privacy data mining based on fuzzy theory in numerical database** [9069-59]
R. Cui, H. J. Kim, Korea Univ. (Korea, Republic of)
- 9069 1B **Mass classification in mammogram with semi-supervised relief based feature selection** [9069-60]
X. Liu, J. Liu, Wuhan Univ. of Science and Technology (China) and Hubei Province Key Lab. of Intelligent Information Processing and Real-time Industrial System (China); Z. Feng, Zhejiang Univ. of Technology (China); X. Xu, J. Tang, Wuhan Univ. of Science and Technology (China) and Hubei Province Key Lab. of Intelligent Information Processing and Real-time Industrial System (China)
- 9069 1C **Efficient color edge detection based on synthetic weighted multi-structure element morphology** [9069-62]
P. Samutrak, J. Werapun, King Mongkut's Institute of Technology Ladkrabang (Thailand)
- 9069 1D **Highlight area inpainting guided by illumination model** [9069-63]
Y. Wang, Z. Jiang, J. Shi, BeiHang Univ. (China)
- 9069 1E **A real-time orientation feature descriptor for portable devices** [9069-64]
P. Yang, Z. Jiang, H. Feng, D. Zhao, BeiHang Univ. (China)
- 9069 1F **Rolling shutter image compensation based on humanoid robot NAO** [9069-65]
S. Zhao, B. Zhao, F. Pan, D. Lan, L. Jiang, X. Hu, Northeastern Univ. (China)
- 9069 1G **Analysis on key problems of mountain torrent disaster loss assessment system in Liaohe River Basin** [9069-66]
J. Chen, Nanchang Institute of Technology (China)
- 9069 1H **Smoke detection using GLCM, wavelet, and motion** [9069-88]
T. Srisuwan, M. Ruchanurucks, Kasetsart Univ. (Thailand)

- 9069 1I **A GPU-based computer-assisted microscopy system for assessing the importance of different families of histological characteristics in cancer diagnosis** [9069-92]
D. Glotsos, S. Kostopoulos, Technological Educational Institute of Athens (Greece); K. Sidiropoulos, Brunel Univ. (United Kingdom); P. Ravazoula, Univ. Hospital of Patras (Greece); I. Kalatzis, P. Asvestas, D. Cavouras, Technological Educational Institute of Athens (Greece)
- 9069 1J **Cutting line determination for plant propagation** [9069-93]
L.-Y. Lo, National Cheng Kung Univ. (Taiwan); C.-C. Hsia, Industrial Technology Research Institute (Taiwan); H.-H. Sun, National Cheng Kung Univ. (Taiwan); H.-J. Chen, Industrial Technology Research Institute (Taiwan); X.-T. Wu, M.-C. Hu, National Cheng Kung Univ. (Taiwan)

ALGORITHMS, MACHINE LEARNING, AND APPLICATIONS

- 9069 1K **Local spatial binary pattern: a new feature descriptor for content-based image retrieval** [9069-67]
Y. Xia, S. Wan, L. Yue, Univ. of Science and Technology of China (China)
- 9069 1L **Automatic spatiotemporal matching of detected pleural thickenings** [9069-68]
K. Chaisaowong, RWTH Aachen Univ. (Germany) and King Mongkut's Univ. of Technology North Bangkok (Thailand); S. K. Keller, RWTH Aachen Univ. (Germany); T. Kraus, Univ. Hospital Aachen (Germany)
- 9069 1M **Automatic extraction of power lines by particle filtering from aerial images** [9069-69]
F. Ye, F. Li, S. Hu, Nanchang Univ. (China)
- 9069 1N **Edge-preserving smoothing for image decomposition via a hybrid approach** [9069-70]
Y. Wang, H. Liu, Z. Wu, Peking Univ. (China)
- 9069 1O **Automatic facial expression recognition based on features extracted from tracking of facial landmarks** [9069-71]
D. Ghimire, J. Lee, Jeonbuk National Univ. (Korea, Republic of)
- 9069 1P **A new method for solving overfitting problem of gentle AdaBoost** [9069-72]
S. Wu, H. Nagahashi, Tokyo Institute of Technology (Japan)
- 9069 1Q **Designing a serious game for historical heritage: a case study of Heerlen Roman bathhouse** [9069-73]
W. Qi, NingBo Univ. of Technology (China) and Open Univ. Nederland (Netherlands)
- 9069 1R **A geometrical defect detection method for non-silicon MEMS part based on HU moment invariants of skeleton image** [9069-74]
X. Cheng, X. Jin, Z. Zhang, J. Lu, Beijing Institute of Technology (China)
- 9069 1S **Robust normal estimation of point cloud with sharp features via subspace clustering** [9069-75]
P. Luo, Z. Wu, C. Xia, L. Feng, B. Jia, BeiHang Univ. (China)

- 9069 1T **Font generation of personal handwritten Chinese characters** [9069-76]
J.-W. Lin, Tunghai Univ. (Taiwan); C.-Y. Wang, C.-L. Ting, R.-I. Chang, National Taiwan Univ. (Taiwan)
- 9069 1U **Geodesic based conformal mesh parameterization** [9069-77]
Q. Zou, Shenyang Institute of Automation (China) and Univ. of Chinese Academy of Sciences (China); J. Zhao, Shenyang Institute of Automation (China); Y. Zhao, Shenyang Institute of Automation (China) and Univ. of Chinese Academy of Sciences (China); G. Liu, Shenyang Institute of Automation (China); H. Jin, Shenyang Institute of Automation (China) and Univ. of Chinese Academy of Sciences (China)
- 9069 1V **Line segment linking algorithm based on gradient orientation** [9069-79]
B. Li, W. Wang, H. Ye, Tsinghua Univ. (China)
- 9069 1W **Strand structures detection for 2D shapes based on visibility** [9069-80]
S. Wang, Z. Li, S. Miao, Y. Du, W. Qu, Dalian Maritime Univ. (China); J. Cao, Dalian Univ. of Technology (China)
- 9069 1X **Elastic cone for Chinese calligraphy** [9069-81]
F. Cai, H. Li, East China Normal Univ. (China)
- 9069 1Y **Algebraic pattern recognition** [9069-82]
M. R. Przybytek, Univ. of Warsaw (Poland)
- 9069 1Z **Image segmentation using random features** [9069-83]
G. Bull, J. Gao, M. Antolovich, Charles Sturt Univ. (Australia)
- 9069 20 **Realistic page-turning of electronic books** [9069-84]
C. Fan, H. Li, Y. Bai, East China Normal Univ. (China)
- 9069 21 **Simplified calculation of distance measure in DP algorithm** [9069-85]
T. Hu, X. Ren, Y. Lu, Shenzhen Institute of Information Technology (China) and Shenzhen Key Lab. of Visual Media Processing and Transmission (China)
- 9069 22 **Based on GIS technology flood disaster assessment study of Fuhe River Basin** [9069-86]
D. Wu, X. Zhao, J. Chen, Nanchang Institute of Technology (China)
- 9069 23 **Edge-guided filtering scheme for decomposition-based tone mapping** [9069-89]
X. Wu, Z. Su, X. Luo, Sun Yat-sen Univ. (China)
- 9069 24 **Analysis of mammogram images based on texture features of curvelet sub-bands** [9069-90]
S. J. S. Gardezi, I. Faye, Univ. Teknologi Petronas (Malaysia); Md. M. Eltoukhy, Univ. Teknologi Petronas (Malaysia) and Suez Canal Univ. (Egypt)
- 9069 25 **Quality assessment of color images based on the measure of just noticeable color difference** [9069-91]
C.-H. Chou, Y.-H. Hsu, Tatung Univ. (Taiwan)

Author Index