Contents

vii Conference Committee

SESSION 1 OBJECT DETECTION AND SEGMENTATION

7701 02 Ship detection in satellite imagery using rank-order grayscale hit-or-miss transforms [7701-01]
N. R. Harvey, R. Porter, J. Theiler, Los Alamos National Lab. (United States)

7701 03 Hyperspectral image segmentation, deblurring, and spectral analysis for material identification [7701-02]
F. Li, East China Normal Univ. (China); M. K. Ng, Hong Kong Baptist Univ. (Hong Kong, China);
R. Plemmons, Wake Forest Univ. (United States); S. Prasad, The Univ. of New Mexico (United States);
Q. Zhang, Wake Forest Univ. (United States)

7701 04 Automatic scene activity modeling for improving object classification [7701-03]
S. Foucher, M. Lalonde, L. Gagnon, Computer Research Institute of Montreal (Canada)

7701 05 Detection of moving objects from a moving platform in urban scenes [7701-04]
F. B. ter Haar, R. J. M. den Hollander, J. Dijk, TNO Defence, Security and Safety (Netherlands)

7701 06 Human detection in MOUT scenarios using covariance descriptors and supervised manifold learning [7701-05]
J. Metzler, D. Willersinn, Fraunhofer IOSB (Germany)

7701 07 A two-stage approach to detect abandoned baggage in public places [7701-06]
B. K. Mitra, W. Hassan, P. Birch, A. Gardezi, R. Young, C. Chatwin, Univ. of Sussex (United Kingdom)

SESSION 2 ENHANCEMENT AND FUSION

7701 08 Visual contrast enhancement techniques applied to optical coherence tomography images [7701-07]
A. El-Saba, Univ. of South Alabama (United States); P. Duraisamy, Univ. of North Texas (United States)

7701 09 A multi-algorithm-based automatic person identification system [7701-08]
M. M. Monwar, M. Gavrilova, Univ. of Calgary (Canada)

7701 0A Issues and challenges in the development of a commercialised image fusion system [7701-09]
J. P. Heather, M. I. Smith, J. Sadler, D. Hickman, Waterfall Solutions Ltd. (United Kingdom)
SESSION 3  IMAGING APPLICATIONS

7701 0C Comparing FPGAs and GPUs for high-performance image processing applications [7701-13]
E. J. Kelmelis, F. E. Ortiz, P. F. Curt, M. R. Bodnar, K. E. Spagnoli, A. L. Paolini, D. K. Price,
EM Photonics, Inc. (United States)

7701 0D Computationally efficient radar image based forecasting using RBF neural networks [7701-14]
D. Charalampidis, S. Kattekola, Univ. of New Orleans (United States)

SESSION 4  IMAGE ANALYSIS

7701 0F A differential interpolation image correction approach for bidirectional resonant scanners [7701-20]
B. Haji-Saeed, C. L. Woods, Air Force Research Lab. (United States); J. Kierstead, Solid State
Scientific Corp. (United States); J. Khoury, Air Force Research Lab. (United States)

7701 0G Improving imaging through turbulence via aperture partitioning [7701-21]
B. Calef, Boeing LTS Maui (United States)

7701 0H Super-resolution reconstruction of images captured from airborne unmanned vehicles [7701-22]
A. H. Yousef, Z. Rahman, Old Dominion Univ. (United States)

SESSION 5  ESTIMATION AND CLASSIFICATION

7701 0J Hierarchical layered and semantic-based image segmentation using ergodicity map [7701-24]
J. Yadegar, X. Liu, UtopiaCompression Corp. (United States)

7701 0K The spatial vision tree: a generic pattern recognition engine: scientific foundations, design
principles, and preliminary tree design [7701-25]
Z. Rahman, Old Dominion Univ. (United States); D. J. Jobson, G. A. Woodell, NASA Langley
Research Ctr. (United States)

SESSION 6  ANALYSIS AND METHODS

7701 0M Image bloom testing and analysis [7701-27]
M. A. Medina, J. A. Mazzetta, S. D. Scopatz, Electro Optical Industries (United States)

7701 0N Designing the optimal shutter sequences for the flutter shutter imaging method [7701-28]
J. Jelinek, Honeywell ACS Labs. (United States)
POSTER SESSION

7701 0Q A novel online learning method for head detection in video sequences [7701-33]
D. Luo, Huazhong Univ. of Science and Technology (China); N. Sang, Huazhong Univ. of Science and Technology (China) and Wuhan Polytechnic Univ. (China); R. Huang, Huazhong Univ. of Science and Technology (China); X. Tong, Wuhan Polytechnic Univ. (China)

7701 0R Improve online boosting algorithm from self-learning cascade classifier [7701-34]
D. Luo, Huazhong Univ. of Science and Technology (China); N. Sang, Huazhong Univ. of Science and Technology (China) and Wuhan Polytechnic Univ. (China); R. Huang, Huazhong Univ. of Science and Technology (China); X. Tong, Wuhan Polytechnic Univ. (China)

7701 0T Enhancing low-contrast image by separately processing illuminance and reflectance [7701-37]
R. Huang, Huazhong Univ. of Science and Technology (China); N. Sang, Huazhong Univ. of Science and Technology (China) and Wuhan Polytechnic Univ. (China); D. Luo, Huazhong Univ. of Science and Technology (China); X. Tong, Wuhan Polytechnic Univ. (China)

7701 0U Visualizing bone porosities using a tabletop scanning electron microscope [7701-38]
D. Krishnamoorthy, Carnegie Mellon Univ. (United States); J. DaPonte, C. C. Broadbridge, D. Daniel, Southern Connecticut State Univ. (United States); L. Alter, Wilber Cross High School (United States)

7701 0V Unconstrained license plate detection using the Hausdorff distance [7701-39]
M. Lalonde, S. Foucher, L. Gagnon, Computer Research Institute of Montreal (Canada)

7701 0W Thermal fluctuation exponents for two near-critical point systems [7701-40]
A. Oprisan, B. Bayley, S. A. Oprisan, College of Charleston (United States); J. J. Hegseth, Univ. of New Orleans (United States); Y. Garrabos, C. Lecoutre, ESEME-CNRS, Institut de Chimie de la Matière Condensée de Bordeaux, Univ. Bordeaux (France); D. Beysens, ESEME-CEA-ESPCI, PMMH, CNRS, Univ. Paris 6 et Paris 7

7701 0X Real-time shot detection based on motion analysis and multiple low-level techniques [7701-41]
C. Cuevas, N. García, Univ. Politécnica de Madrid (Spain)

7701 0Y A special algorithm based on structure for ship classification [7701-42]
B. Sun, W. Guo, J. He, X. Zhu, Beijing Normal Univ. (China)

Author Index