

Contents

- vii *Authors*
- ix *Conference Committee*
- xi *Introduction*

SESSION 1 IMAGE ANALYSIS AND IMAGE ENHANCEMENT

- 9817 02 **Block based image compression technique using rank reduction and wavelet difference reduction [9817-6]**
- 9817 03 **A novel targeted enhancement technique for decimation and interpolation of images [9817-7]**
- 9817 04 **Spectral residual method of saliency detection based on the two-dimensional fractional Fourier transform domain [9817-12]**
- 9817 05 **An advanced total variation model in H^{-1} space for image inpainting [9817-57]**
- 9817 06 **Image enhancement based on edge boosting algorithm [9817-24]**
- 9817 07 **Learning the histogram sequences of generalized local ternary patterns for blind image quality assessment [9817-25]**
- 9817 08 **Error image aware content restoration [9817-43]**

SESSION 2 IMAGE PROCESSING AND APPLICATION

- 9817 09 **Game theory based band selection for hyperspectral images [9817-3]**
- 9817 0A **Hardware accelerator of convolution with exponential function for image processing applications [9817-10]**
- 9817 0B **3D CAD model retrieval method based on hierarchical multi-features [9817-33]**
- 9817 0C **A novel edge-preserving nonnegative matrix factorization method for spectral unmixing [9817-34]**
- 9817 0D **An improved adaptive IHS method for image fusion [9817-37]**
- 9817 0E **Spatial and spectral coordinate super resolution of hyperspectral imagery based on redundant dictionary [9817-30]**

SESSION 3 IMAGE SEGMENTATION

- 9817 0F **Brain tumor segmentation in MR slices using improved GrowCut algorithm** [9817-23]
- 9817 0G **Hippocampus segmentation using locally weighted prior based level set** [9817-27]
- 9817 0H **Automatic and efficient methods applied to the binarization of a subway map** [9817-35]
- 9817 0I **A graph-based watershed merging using fuzzy C-means and simulated annealing for image segmentation** [9817-39]
- 9817 0J **Automatic segmentation and classification of tendon nuclei from IHC stained images** [9817-48]
- 9817 0K **Automatic segmentation of Leishmania parasite in microscopic images using a modified CV level set method** [9817-49]
- 9817 0L **Adaptive segmentation of nuclei in H&S stained tendon microscopy** [9817-53]
- 9817 0M **A novel iris segmentation algorithm based on small eigenvalue analysis** [9817-40]

SESSION 4 IMAGE DETECTION AND PATTERN RECOGNITION

- 9817 0N **Distance-invariant automatic engagement level recognition using visual cues** [9817-2]
- 9817 0O **Learning deformation model for expression-robust 3D face recognition** [9817-9]
- 9817 0P **An improved space-based algorithm for recognizing vehicle models from the side view** [9817-17]
- 9817 0Q **Object recognition based on Google's reverse image search and image similarity** [9817-41]
- 9817 0R **A novel ensemble method to integrate with different technologies for moving foreground detection** [9817-44]
- 9817 0S **A real-time marking defect inspection method for IC chips** [9817-54]
- 9817 0T **Fast frequency domain method to detect skew in a document image** [9817-31]
- 9817 0U **A small dim infrared maritime target detection algorithm based on local peak detection and pipeline-filtering** [9817-32]
- 9817 0V **Detection and clustering of features in aerial images by neuron network-based algorithm** [9817-56]

SESSION 5 COMPUTER VISION AND VISUALIZATION

- 9817 0W **Robust visual track using an ensemble cascade of convolutional neural networks** [9817-8]

- 9817 0X **Robust visual tracking with dual spatio-temporal context trackers** [9817-11]
- 9817 0Y **Stereo vision-based pedestrian detection using multiple features for automotive application** [9817-16]
- 9817 0Z **Action recognition based on a selective sampling strategy for real-time video surveillance** [9817-19]
- 9817 10 **Multi-expert tracking algorithm based on improved compressive tracker** [9817-22]
- 9817 11 **Development of embedded real-time and high-speed vision platform** [9817-46]

SESSION 6 COMPUTATIONAL PHOTOGRAPHY AND AIDED TECHNOLOGY

- 9817 12 **Performance evaluation and optimization of BM4D-AV denoising algorithm for cone-beam CT images** [9817-15]
- 9817 13 **Impact of memory bottleneck on the performance of graphics processing units** [9817-51]
- 9817 14 **A non-linear camera calibration with modified teaching-learning-based optimization algorithm** [9817-52]
- 9817 15 **Optimizations of the GPU-based three-dimensional FDTD program with CPML boundary condition on Kepler architecture GPU** [9817-58]

SESSION 7 FILTER DESIGN AND APPLICATION

- 9817 16 **Ship detection from high-resolution imagery based on land masking and cloud filtering** [9817-20]
- 9817 17 **A new mixed-mode filter based on MDDCCs** [9817-38]
- 9817 18 **Comparison of recent non-linear filters from graphics field** [9817-47]

SESSION 8 REMOTE SENSING AND IMAGE FORMATION

- 9817 19 **Ultrasound harmonic imaging with reducing speckle noise by spatial-frequency compounding approach** [9817-1]
- 9817 1A **Four decades urban growth and land use change in Samara Russia through remote sensing and GIS techniques** [9817-5]
- 9817 1B **An adjustable frame-straddling image formation system for PIV application** [9817-45]
- 9817 1C **Remote sensing image classification based on support vector machine with the multi-scale segmentation** [9817-14]

SESSION 9 SIGNAL ANALYSIS AND ALGORITHM

- 9817 1D **Application of linear graph embedding as a dimensionality reduction technique and sparse representation classifier as a post classifier for the classification of epilepsy risk levels from EEG signals [9817-4]**
- 9817 1E **The serial message-passing schedule for LDPC decoding algorithms [9817-13]**
- 9817 1F **Iterative feedback algorithm for phase retrieval based on transport of intensity equation [9817-42]**