

# MATLAB Projects

## *I. MATLAB based INFORMATION/MULTIMEDIA FORENSICS*

1. Copy-Paste Detection Based on a SIFT Marked Graph Feature Vector. **(IEEE2017)**
2. Optimised blind image watermarking method based on firefly algorithm in DWT-QR transform domain. **(IEEE2017)**
3. The Switching Fractional Order Chaotic System and Its Application to Image Encryption. **(IEEE2017)**
4. Image Forgery Localization via Integrating Tampering Possibility Maps. **(IEEE2017)**
5. An Image-Based Approach to Detection of Fake Coins. **(IEEE2017)**
6. Con-Text: Text Detection for Fine-grained Object Classification. **(IEEE2017)**

## *II. MATLAB based FORESIGHT NETWORK (REMOTE SENSING)*

1. Integrated Localization and Recognition for Inshore Ships in Large Scene Remote Sensing Images. **(IEEE2017)**
2. Single image dehazing by latent region segmentation based transmission estimation and weighted  $L1$ -norm regularisation. **(IEEE2017)**
3. Inshore Ship Detection in Remote Sensing Images via Weighted Pose Voting. **(IEEE2017)**
4. Change Detection Based on Gabor Wavelet Features for Very High Resolution Remote Sensing Images. **(IEEE2017)**
5. Accurate Shadow Detection From High Resolution Satellite Images. **(IEEE2017)**
6. River Extraction From High-Resolution SAR Images Combining a Structural Feature Set and Mathematical Morphology. **(IEEE2017)**
7. A Region-Wised Medium Transmission Based Image Dehazing Method. **(IEEE2017)**

### **III. MATLAB based BIO MEDICAL IMAGING**

1. Reworking Multilabel Brain Tumor Segmentation. **(IEEE2017)**
2. MIGS-GPU: Microarray Image Gridding and Segmentation on the GPU. **(IEEE2017)**
3. Retinal Disease Screening through Local Binary Patterns. **(IEEE2017)**
4. Fast unsupervised Bayesian image segmentation with adaptive spatial regularisation. **(IEEE2017)**
5. Leukocytes Classification and Segmentation in Microscopic Blood Smear: A Resource-Aware Healthcare Service in Smart Cities. **(IEEE2017)**
6. An Approach to Detect Bone Tumor using Comparative Analysis of Segmentation Techniques. **(IEEE2017)**
7. Retinal Fundus Image Analysis for Diagnosis of Glaucoma: A Comprehensive Survey **(IEEE2017)**
8. Automated Melanoma Recognition in Dermoscopy Images via Very Deep Residual Networks. **(IEEE2017)**

### **IV. MATLAB based BIOMETRIC AUTHENTICATION**

1. Automatic ear detection and feature extraction using Geometric Morphometrics and convolutional neural networks. **(IEEE2017)**
2. System for multimodal biometric recognition based on finger knuckle and finger vein using feature-level fusion and k-support vector machine classifier. **(IEEE2017)**
3. Facial Age Estimation with Age Difference. **(IEEE2017)**
4. Effective statistical-based and dynamic fingerprint preprocessing technique. **(IEEE2017)**
5. Towards More Accurate Iris Recognition using Cross-Spectral Matching. **(IEEE2017)**
6. Facial Expression Recognition Utilizing Local Direction-based Robust Features and Deep Belief Network. **(IEEE2017)**
7. Face detection with a Viola–Jones based hybrid network. **(IEEE2017)**
8. Fingerprint liveness detection using local texture features. **(IEEE2017)**

## ***V. MATLAB based IMAGE AUGMENTATION PROCESS***

1. A Hierarchical Approach for Rain or Snow Removing in A Single Color Image. **(IEEE2017)**
2. Leave-one-out Kernel Optimization for Shadow Detection and Removal. **(IEEE2017)**
3. Affine Non-local Means Image Denoising. **(IEEE2017)**
4. LIME: Low-light Image Enhancement via Illumination Map Estimation. **(IEEE2017)**
5. Multi-Image Deblurring using Complementary Sets of Fluttering Patterns. **(IEEE2017)**
6. Image Enhancement Using Morphological Contrast Enhancement for Video Based Image Analysis. **(IEEE2017)**
7. Fusion-based Variational Image Dehazing. **(IEEE2017)**

## ***VI. MATLAB based INTELLIGENT VEHICLE/TRANSPORT ENFORCEMENT SYSTEM***

1. Riesz Fractional Based Model for Enhancing License Plate Detection and Recognition. **(IEEE2017)**
2. Automatic Detection of Red Light Running Using Vehicular Cameras. **(IEEE2017)**
3. A Low-Complexity Vision-Based System for Real-Time Traffic Monitoring. **(IEEE2017)**
4. Nighttime Vehicle Detection Based on Bio-Inspired Image Enhancement and Weighted Score-Level Feature Fusion. **(IEEE2017)**
5. Counting vehicles in urban traffic scenes using foreground time-spatial images. **(IEEE2017)**

## ***VII. MATLAB based SELF-DEFENCE AND DIGITAL SURVEILLANCE (SDDS)***

1. Dual Deep Network for Visual Tracking. **(IEEE2017)**
2. Towards Abnormal Trajectory and Event Detection in Video Surveillance. **(IEEE2017)**

3. *K*-means based multiple objects tracking with long-term occlusion handling. **(IEEE2017)**
4. Universal Multimode Background Subtraction. **(IEEE2017)**
5. Anomaly Detection in Traffic Scenes via Spatial-Aware Motion Reconstruction. **(IEEE2017)**

### ***VIII. MATLAB based HUMAN MACHINE INTERFACE***

1. Metaphoric Hand Gestures for Orientation Aware VR Object Manipulation With an Egocentric Viewpoint. **(IEEE2017)**
2. A Finger Vein Image-Based Personal Identification System With Self-Adaptive Illuminance Control. **(IEEE2017)**
3. A Robust and Efficient Approach to License Plate Detection. **(IEEE2017)**
4. Towards Detection of Bus Driver Fatigue Based on Robust Visual Analysis of Eye State. **(IEEE2017)**
5. Real-Time Bidirectional Traffic Flow Parameter Estimation From Aerial Videos. **(IEEE2017)**

### ***IX. MATLAB based SMART FARMING***

1. Automatic Fruit Quality Inspection System. **(IEEE2017)**
2. Plant Disease Detection using Digital Image Processing and GSM. **(IEEE2017)**
3. Automatic Weed Detection And Smart Herbicide Spray Robot For Corn Fields **(IEEE2017)**

### ***X. MATLAB based INDUSTRIAL AUTOMATION AND CONTROL***

1. Crack Detection and Parameters Estimation on Road Images: Review. **(IEEE2017)**
2. EBSCam: Background Subtraction for Ubiquitous Computing. **(IEEE2017)**
3. Real-time multi-feature based fire flame detection in video. **(IEEE2017)**
4. Deep Multitask Learning for Railway Track Inspection. **(IEEE2017)**