

## **Digital Image Processing - IEEE 2014 -2015 Projects**

### **COLOR IMAGE AND SATELLITE APPLICATION**

1. CONTRAST ENHANCEMENT-BASED FORENSICS IN DIGITAL IMAGES
2. IMAGE RESOLUTION ENHANCEMENT USING LIFTING WAVELET AND STATIONARY WAVELET TRANSFORM
3. INTERPOLATION WITH EDGE EXTRACTION VIA A SPARSE REPRESENTATION
4. SATELLITE IMAGE FUSION USING FAST DISCRETE CURVELET TRANSFORMS
5. SINGLE IMAGE SUPER-RESOLUTION USING DICTIONARY-BASED LOCAL REGRESSION
6. SUPER RESOLUTION IMAGE GENERATION USING WAVELET DOMAIN
7. SUPERPIXELS USING MORPHOLOGY FOR ROCK IMAGE SEGMENTATION

### **DEFENCE APPLICATION (STEGANOGRAPHY)**

1. AN IMPROVED INVERTED LSB IMAGE STEGANOGRAPHY
2. AN IMPROVED MODULE BASED SUBSTITUTION STEGANOGRAPHY METHOD
3. IMAGE STEGANOGRAPHY COMBINED WITH DES ENCRYPTION PREPROCESSING
4. IMPROVED DETECTION OF LEAST SIGNIFICANT BIT STEGANOGRAPHY ALGORITHMS IN COLOR AND GRAY SCALE IMAGES
5. MODIFIED APPROACH OF KEY MANIPULATION IN CRYPTOGRAPHY USING 2D GRAPHICS IMAGE
6. ONE-THIRD PROBABILITY EMBEDDING: A NEW  $\pm 1$  HISTOGRAM COMPENSATING IMAGE LEAST SIGNIFICANT BIT STEGANOGRAPHY SCHEME

### **MEDICAL APPLICATION**

1. BRAIN TUMOR DETECTION USING SEGMENTATION BASED OBJECT LABELING ALGORITHM
2. EFFICIENT SEGMENTATION METHODS FOR TUMOR DETECTION IN MRI IMAGES
3. FINDING THE SMALLEST CIRCLE CONTAINING THE IRIS IN THE DENOISED WAVELET DOMAIN
4. HISTOGRAM EQUALIZATION FOR IMAGE ENHANCEMENT USING MRI BRAIN IMAGES
5. MAMMOGRAPHY FEATURE ANALYSIS AND MASS DETECTION IN BREAST CANCER IMAGES
6. MODIFIED HISTOGRAM BASED CONTRAST ENHANCEMENT USING HOMOMORPHIC FILTERING FOR MEDICAL IMAGES
7. OVERVIEW ON EDGE DETECTION METHODS
8. SEGMENTATION OF BLOOD VESSELS AND OPTIC DISC IN RETINAL IMAGES
9. SKINcure: A REAL-TIME IMAGE ANALYSIS SYSTEM TO AID IN THE MALIGNANT MELANOMA PREVENTION AND EARLY DETECTION

### **NOISE REMOVAL AND TRANSMISSION APPLICATIONS**

1. A NOVEL IMAGE PROCESSING FILTER DESIGNED USING DISCRETE FOURIER INVARIANT SIGNAL
2. DISCRETE ANAMORPHIC TRANSFORM FOR IMAGE COMPRESSION
3. FILTERING OF MIXED GAUSSIAN AND IMPULSIVE NOISE USING MORPHOLOGICAL CONTRAST DETECTORS
4. IMPACT OF WAVELET TRANSFORM AND MEDIAN FILTERING ON REMOVAL OF SALT AND PEPPER NOISE IN DIGITAL IMAGES

## 5. REMOVING JPEG BLOCKING ARTIFACTS USING MACHINE LEARNING

### **RECOGNITION APPLICATIONS**

1. BIOMETRIC AUTHENTICATION USING KEKRE'S WAVELET TRANSFORM
2. NOISE ROBUST NOVEL APPROACH TO SPEECH RECOGNITION

### **WATERMARKING**

1. BLOCK BASED ROBUST BLIND IMAGE WATERMARKING USING DISCRETE WAVELET TRANSFORM
2. COMBINED DWT-DCT DIGITAL WATERMARKING TECHNIQUE SOFTWARE USED FOR CTS OF BANK
3. EFFICIENT HYBRID WATERMARKING APPROACH BY USING SVD, DWT, AND BACK PROPAGATION NEURAL NETWORK
4. REVERSIBLE COLOR IMAGE WATERMARKING USING TRIGONOMETRIC FUNCTIONS
5. ROBUST DIGITAL IMAGE WATERMARKING IN HIGH FREQUENCY BAND USING MEDIAN FILTER FUNCTION BASED ON DWT-SVD
6. ROBUST DIGITAL WATERMARKING FOR COLOURED IMAGES USING SVD AND DWT TECHNIQUE
7. ROBUST IMAGE WATERMARKING BASED ON DUAL INTERMEDIATE SIGNIFICANT BIT (DISB)

### **WEB APPLICATIONS**

1. ENHANCEMENT OF IMAGE RETRIEVAL BY USING COLOUR, TEXTURE AND SHAPE FEATURES
2. IMAGE-BASED GEOGRAPHICAL LOCATION ESTIMATION USING WEB CAMERAS