FALL SEMESTER 2021-2022

CSE3018 CONTENT BASED IMAGE AND VIDEO RETRIEVAL LAB

Slot : L45,L46
Date: 11.08.2021

Ex. 2 Digital Image Processing Basics

A.   Perform the following image processing tasks in MATLAB

1.   Read an image and show its dimension.

2.   Convert an RGB image into Grayscale image.

3.   Show the histogram of an image.

4.   Convert an image into Black and White image. (Binary Image)

5.   Show the information about an image.

6.   Convert an RGB image to Gray scale image, using a suitable mathematical equation.

7.   Create a completely Black and completely white images.

8.   Perform bit plane Separation of a gray scale images.

9.   Reconstruct the 8-bit image from the separated bit plane images.

10.   Perform image enhancement using Histogram Equalisation.

11.   Perform image enhancement using Histogram Specification.

12.   Perform edge Detection – Sobel, Canny, Prewitt, Robert – Test using images of types

– Buildings, Human, Car and Nature.

13.   Apply the Laplacian filter on images.

14.   Apply the Gaussian filter in images.