DIP Assignment 2

Deadline: 09/10/2016

1. Take an RGB color image and obtain the histograms of the image separately in Hue, Saturation and Intensity channels.

2. Write a program to take a grayscale image, apply Huffman coding on it, decode it and show the difference image as output.

3. Take a grayscale image and reduce spatial redundancy of the image by taking difference of intensities. Then apply Golomb coding on the result image to code it. Then decode the result and display the difference image.

4. Take a grayscale image and map the image by applying run-length encoding technique to reduce the spatial redundancy. Then apply modified Huffman coding technique (column-wise) to compress the image. Apply reverse procedure to get back the image and display the difference image.

5. Take any RGB color image and show the results after applying (i) Gaussian filter and (ii) Sobel gradient.

6. Take a grayscale image and apply Haar transform. For ease in computation resize the input image by downsampling.