Image and Video processing (IIVP)
Lab Assignment-5
Octave/MATLAB

%PROBLEM%

Time: 1Hr
Date-08/09/2020

1. Consider the image attached in mail.
   a. Convert and normalize the image into 256*256 gray scale with maximum intensity value 256(here you can use inbuilt functions like resize).
   b. Now, Suppose if the reference pixel P(i,j) is having intensity value 90 then considering 90 as threshold value, compare P(i,j) with its 8-nearest neighbors(leave boundary pixels). Generate an eight bit pattern as shown in figure below. Convert the 8 bit pattern into decimal value and replace it with the reference pixel p(i,j). Repeat the same for each pixel and generate another image of size 254*254(excluding boundary pixels).
   c. Generate the histogram of feature image(output of b part).
   d. Equalize the image and show all three outputs(of part b,c and d)

200	50	50
50	90	100
160	70	210

Threshold
90

→

1	0	0
0		1
1	0	1

Binary
10001101

→

150	90	80
30	141	

Decimal
141