Report for part 2
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2 a. myLinearContrastStretching.m - We used a linear function to map the intensity range of the image(minimum intensity value to maximim intensity value) . The max intensity value is mapped to pixel value of 255. We found a equation of line.

Pseudo code

1. max=MinIntensity() //find the min intensity present in the image
2. min=MaxIntensity() //find the max intensity present in the image
3. //Now find the slope for the mapping as y=mx+c
4. m=(255-0)/(max-min)
5. //Now find the intercept value. We know that max intensity value is mapped to highest possible intensity i.e. 255
6. c= 255 - m*max;
7. output=m*input +c // Here we will calculate the value of “m*input +c” for each and every pixel.
8. end

2 b. myHE.m - Implements histogram equalization on input image. Called inside myMainScript.m

2 c. myAHE.m- Implements adaptive histogram equalization. Not called in myMainScript.m because output takes long time(> 5 minutes). .mat files have been saved for the outputs in the following format:
AHE applied on <name>.png with windowsize x*x. Output saved in file: <name>_AHE_x.mat
Windowsize was taken to be 40*40. For part (i)significantly higher: windowsize was taken 100*100 and for part (ii) significantly lower: 10*10.

2 d. myCLAHE.m- Implements CLAHE. Not called in myMainScript.m because takes >5 minutes. .mat files for output saved according to:
Input file:<name>.png, windowsize x*x, histogram-threshold z/100(for thresh=0.3, z=30).
Output file: <name>_x_z.mat
Windowsize was taken to be 80*80. Threshold was 0.30. So, for redo part, windowsize was 80*80 and threshold was 0.15.