CENG 525 Final

Announcement Date : 04.01.2020

Due Data : 15.01.2020 (18:30) – To be presented in class

Issues:

- Write Matlab code in order to perform tasks required for each question and **show** the result **properly**. (Note that PCs in the university computer lab are equipped with Matlab. **OR you may use any language you prefer**)
- All associated deliverables must be submitted in a zip file named 'YourID_YourName.zip'
- The code must be in a form that is directly executable (i.e. the zip file must contain all data or other scripts required and the results must be displayed automatically)
- The main file of the bundle must be specified (i.e. main.m).
- This is an individual work. Scripts having even a single line in common will be discarded.

1) Perform smoothing operation to the image 'question_1.tif' using a 15x15 averaging filter. Note that you are not allowed to use the convolution or filtering functions of Matlab, i.e. you will implement the filtering operation by yourself.
2) Apply 3x3 median filter to the image 'question_2.tif'. Note that you are not allowed to use the median filtering function of Matlab, i.e. you will implement the filter by yourself.
3) Perform nearest neighbor interpolation to double the width and height of the image 'question_3.tif'. Note that you are not allowed to use the resizing function of Matlab.
4) Perform frequency domain restoration to the image 'question_4.tif'.
5) Perform color slicing on the image 'question_5.tif'' to extract red regions.