

CSE/ECE 478: Digital Image Processing

Assignment # 4

Due: Before 5:00pm on 10/11/2017

General Instructions:

- Assignment can be implemented in Matlab/Octave or any other language/platform agreeable to TA's.
- Ensure that submitted assignment is your original work. Please do not copy any part from any source including your friends, seniors and/or the internet. If any such attempt is caught then serious actions including an **F grade in the course** is possible.
- A single zip file needs to be uploaded to the Courses Portal. The file should contain a brief report, your results as well as the code you have written and its output.
- Include the assignment number, your name and roll number at the top-left of the first page of your submission.

Problem 1 Image Restoration

- A. Recover from motion blur in attached images.

Problem 2 Image Compression/Wavelets:

- A. Compress attached uncompressed RGB images by implementing JPEG compression using FFT, DCT and Wavelet transform. Report RMS error for varying compression ratios (using different strategies of coefficient thresholding). You can use inbuilt functions of FFT, DCT and Wavelet transform but other functions in compression and decompression pipeline should be implemented from scratch.