## Gebze Technical University - Computer Engineering Department

CSE464/564 – Digital Image Processing, Fall 2018-2019 Homework 3, 26/11/2018 v1

**Rule 1**: no plagiarism (from colleagues or other sources). Detected cases of plagiarism will lead to a significant penalty of your course grade at the end of the semester.

**Rule 2**: You are asked to write some methods, you can use C/C++/Java/Matlab/Python. You can use readily available software libraries for loading, creating, displaying image files, as well as for getting/setting pixel values and reading image dimensions. **Anything else you have to code it on your own!** 

**Rule 3**: no late submissions! Learning to plan your schedule according to deadlines is part of your education and an invaluable professional skill.

What to submit: a) the source code of your methods and b) a well formatted report

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 $Task\ 1$  – Implement the jpeg compression algorithm. Code a program that first encodes a color image through jpeg, then decodes it, and finally calculates the mean squared error between the original image and the decoded image.

Good luck.