

Digital Image Processing COL 783

Assignment 1: Color Quantization and Color Transfer

Due Date : March 10, 2021

There are two parts to the assignment. The first part of the assignment requires implementation of parts from the paper on color quantization see reference [1]. These are:

- Polpularity algorithm
- Median cut algorithm
- Floyed and Steinberg algorithm

The second part of the assignment requires implementation of transferring of color to grey level images using the algorithm described in the paper given in reference [2] both using global method and using swatches.

Note:

- Assignment can be done in a group of maximum size of two. The group should not change later.
- For reading and writing images and conversion of color models use built-in functions from a library like OpenCV/ImageMagick/MATLAB, etc.

Submission

The submission of the assignment can be done by the group (if the group is of two people, only one should submit and include the statement about what constitutes the group. Should submit one gzip file with only code - no images- and can name the file student1_entrynumber+student2_entrynumber through [Moodle](#).

References

1. [Color Image Quantization for Frame Buffer Display](#) (p297-heckbert.pdf)
2. [Transferring Color to Greyscale Images.](#) (colorize.pdf)