

CS 663: Assignment 2

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Notes and Observations

NOTE: Since none of our team members were able to register in Turnitin, we are attaching our Tcode and (fast to generate images). The published part contains output for parts 1 and 2 including RMSD values of part 2.

The tuned parameters can be found in the published code

Question 2 (Bilateral Filtering)

5 % is just too less a error that can be seen when added in barbara image so we have used 10% for this image. Also, since we were provided with the noisy versions of grass and honey comb images we did not over corrupt them. The plots and calculations are done using this consideration. Also, we have performed linear contrast stretching on the images (original and corrupted one) to $[0,1]$, so the root mean square difference values can be also compared across the images.

Bilateral images preserved most of the edges in barbara and honeycomb. But smooth textures link internal parts of honeycomb, and many portions of grass images were blurred out creating a cartoonish appearance. Although the noise in the images was significantly reduced and images obtained were good enough with low values of RMSD.

The RMSDs are reported in published PDF from MATLAB.