Project #3

assign November 12, 2022 due November 18, 2022

For the degraded images *Kid2 degraded.tif*, try to restore the original image by

Step 1: De-noise (reduce noise power), and

Step 2: Inverse filtering (deconvolution) method provided that the image was blurred by Gaussian model

[Note] Each image in the report is plotted with 200 dpi.

Upload your project report
to E3 Assignment before 23:59 of due date.

Your report (pdf format) should contain:

a) (20%) Source codes
b) (30%) Results of noise model and model parameters
c) (20%) De-noised image by alpha-trimmed mean filter using 5×5 mask and $\alpha = 16$
d) (30%) Output image (15%) reconstructed by estimated inverse filter [Hint] try $D_0 = 100$, 150, 200, 250. Describe the parameters used for deconvolution, including D_0 of the inverse filter as well as the order n and cutoff frequency of Butterworth LPF (15%).

Kid2 degraded.tiff
800x800