

MA5710: Assignment-3

Course Teacher: Prof. S Sundar

TA: Sayantan Banerjee

September 16, 2023

Instructions :

- Please do not copy. Any sign of copy will lead to zero marks only.
- Submit all your findings as report in a single .pdf file to **ma19d201@smail.iitm.ac.in**

-
1. PFA the codes for implementing **PMC** model. Understand it completely and use the provided code to implement **EED** model.
 2. Take a standard image(for example, cameraman image), perform Linear diffusion, PMC, EED and compare the respective **PSNR** values
 3. Take 3 or 4 different images, add different noises to them(Gaussian noise, Salt and Pepper noise, speckle noise and poisson noise with different variances), treat each case as different input image, apply LD, PMC and EED, report respective PSNR values. For better interpretation of your outputs, compare the three models on **variance vs PSNR** plots for each noise and each image
 4. Figure out how sensitive are the model parameters? (**Hint:** For example, You can compare the three models on lambda, contrast parameter vs PSNR plot)
 5. From the above findings, can you comment anything on the best stopping time for the respective models?