

Project Proposal

180050086, 180050012

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1 Names

The students in the group are:

Rishi Agarwal (id - 180050086)

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2 Topic

We are implementing the first project topic given in the list which is related to low rank matrix completion.

The papers which we will implement are:

Robust video denoising using Low rank matrix completion by Hui Ji ,Chaoqiang Liu ,Zuowei Shen and Yuhong Xu

Adaptive Median Filters: New Algorithms and Results by H. Hwang and R. A. Haddad

New Fast Algorithms for the Estimation of Block Motion Vectors by Bede Liu, Fellow, IEEE, and Andre Zaccarin, Member, IEEE

3 Dataset

The dataset is from the website - “<http://media.xiph.org/video/derf/>”

The dataset will comprise of the following images:

carphone

bus

miss.am

mobile

tempeste

4 Validation strategy

One simple method of validation would be to see the denoised images themselves. This will itself validate the implementation. To be more formal and mathematical, we will compute the PSNR values of the noised and denoised images. The PSNR value for denoised image should come out to be higher than the PSNR value of the noised image. We will also compute the RMSE of the images with the original image. RMSE for denoised image should be lower than RMSE for noised image.