

ABSTRACT

Nowadays, the use of digital images has become a trend. It's because of their characteristics, like its simplicity to be spread, doesn't need big storage, and the repairing process can be done easily. However, when the acquisition process is being done, noise could get onto it and make any damage. If that happened, the image enhancement process that will be applied to the image will not give optimal result. That's way noise filtering process is needed to reduce the noise on it.

This final project is using Block SVD (Singular Value Decomposition) with DWT (Discrete Wavelet Transform) to reduce noise on the image. The noise that is being generated for simulation are Gaussian noise, Poisson noise, Salt & Pepper and Speckle. The technic is decomposing the matrices that represented the noisy video. So it can be seen which components of the video that contain noise with different levels intensity.

The result of the research to get the block SVD technical with DWT can be used for noise reduction in digital video. There is can be know the value MSE (Mean Square Error) and PSNR (Peak Signal Noise Ratio).

Keywords : video digital, noise filtering blok *SVD*, *DWT*