ABSTRACT

Nowdays, digital image becomes the most important and useful things in every field in live, so the need of digital image is much more and various. It's very often that in shipping process either by satellite medium or cable medium, digital image will get interferences from outside, one of them is the noise of digital image which is shipped. Therefore causes the quality of the image received is't the same as the original image.

In this final project, using of *Histogram Adaptive Fuzzy* in *noise* decrease process of digital image has implemented and analyzed, so it can increase the quality of the image which is resulted. *Noise* that's used is *impulsive noise*, where it's generated by a *noise generator*. *Impulsive noise* will give a value of pixel in digital image with maximum value or minimum value based on the *noise* level which is given.

Performance parameter that's tested is PSNR (*Peak Signal-to-Noise Ratio*) in image coming from the result of *filtering*. The performance of *Histogram Adaptive Fuzzy* in decrease process of impulsive noise will be compared by the other method such as *Median filtering, Mean filtering, Adaptive Wiener filtering and Fuzzy Image Filtering[3].*

From the analysis result, asserts that *Histogram Adaptive Fuzzy* method is very proper to be used for decreasing *impulsive noise* by noise probability value between 0 until 0,4 with increment 0,1.

Keywords   : *Histogram Adaptive Fuzzy, Mean Filtering, Median Filtering, Adaptive   Wiener Filtering, Fuzzy Image Filtering, Impulsive Noise, PNSR.*