Abstract

Nowdays, digital image can be used in every field of live. It causes access and move from one media digital image to another media more often to do. But, the taking and move of the digital image often realizes a distortion that makes there is a noise at the digital image, so the qualities that accept by someone will be less or not as good as the original.

In this final project, had been implemented, and analyted, *Maximum Aposteriori-Gaussian Scale Mixtures* in doing filtering process to a digital image that may subtract the noise, so the qualities can be advance. *Noise* that's used is additive Gaussian noise, impusive noise dan laplacian noise with a fixed probability, where it's generated by a *noise generator*. This digital image will be decompose into 4 subband (LL,LH,HL,HH) dan the subband that will be prosessed are LH,HL, and HH using GSM method with maximum aposteriori for estimating the multiplier and local wiener to estimate the central coefficient.

Performance parameter that's tested is PSNR (*Peak Signal-to-Noise Ratio*) and from the analysis result, asserts that *Maximum Aposteriori-Gaussian Scale Mixtur* method is very proper to be used for decreasing *additive gaussian noise* lalu *laplacian, impulsive* dan terakhir *multiplicative Gaussian noise.* To get better PSNR, we can use bigger size of MAP size.

Keywords: Gaussian Scale Mixture (GSM), Maximum Aposteriori (MAP), Noise, Discrete Wavelet Transform (DWT), PSNR