

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 move often realizes a distortion that makes there is a noise at the digital image that someone accept, so the qualities that accept by someone will be less or not as good as the original.

In this final project, had been implemented, analyted, and compared two methode, *Switching Median Filter With Boundary Discriminative Noise Detection* and *Adaptive Median Filter* in doing filtering process to a digital image that may subtract the noise, so the qualities can be advance. *Noise* that's used is *impulsive noise* with a fixed probability, where it's generated by a *noise generator*.

Performance parameter that's tested is PSNR (*Peak Signal-to-Noise Ratio*) and MOS (*Mean Opinion Score*) in image coming from the result of *filtering*. Both of their's performance will be campare with a performance from *Standard Median Filter* that usually used.

From the analysis result, asserts that *Switching Median Filter With Boundary Discriminative Noise Detection* and *Adaptive Median Filter* method is very proper to be used for decreasing *impulsive noise* by noise probability value between 0 until 0,4 with increment 0,1. *Switching Median Filter With Boundary Discriminative Noise Detection* method is very powerful to reduce impulsive noise on digital image that have *low contrast* and normal *brightness* characteristic whereas *Adaptive Median Filter* is very appropriate to reduce *impulsive noise* on digital image that have Normal and *High contrast* with normal *brightness* characteristic.

Keywords: Switching Median Filter With Boundary Discriminative Noise Detection, Adaptive Median Filter, Standard Median Filtering, Noise, PSNR, MOS