

ABSTRACT

Developing from previous Final Project analyzes of the host image with a logo image inserted using watermarking technique Discrete Wavelet Transform (DWT). However, for this final project using the host image with the inserted text using the LSB (Least Significant Bit) Discrete and watermarking techniques wavelet Transform (DWT). Then compared with images using the text inserted hosts Adaptive Edges with LSB. And use media MMS to send a messages with Android-based services.

The system is made using a variety of methods and based on android. The first system, the method used is the method of LSB (Least Significant Bit) insertion and extraction, methods of DWT (Discrete Wavelet Transform) to separate the layers, and methods IDWT (Inverse Discrete Wavelet Transform) for the reconstruction process. For second systems, the method used is the method of AE-LSB (Edges with Adaptive LSB) for insertion by using the edge of the image and extraction.

From the research, by using watermarking system and method of LSB watermarking technique Discrete Wavelet Transform (DWT) and the host image taken with the highest dimension LogoJava.PNG imperceptibility which produces good performance of the PSNR and MSE. PSNR value is infinite and the MSE value equal to 0, so it has the same image quality with terwatermark the original image. And from the MOS calculation if the average yield value ≥ 4 . Moreover, this system produces an error rate of 0% CER and also 0 for BER value. Although the computational time of this system is so slow that is equal to 1572 ms.

KEYWORDS: *Wavelet Watermarking, layer, Discrete Wavelet Transform, Inverse Discret Wavelet Transform, imperceptibility, Least Significant Bit, Edges Adaptive with LSB, Android.*