

ABSTRACT

Exchange of information has improved significantly, it can be seen from the many media used today are digital media, such as the internet. One device that offers easy Internet use is android. Currently android-based smartphones is booming among the people of the world due to the many conveniences it offers. Ease that should give you an advantage for us turned out to have a negative side. For instance the data digitalstealing which send through the internet can be abused by person who are not responsible. With the ease, person can be easily copied, distributed, and/or changed the contents of digital data. Therefore we need a technique that can deal with these issues, especially matters related to copyright label. One technique that can be used is the watermarking. Watermarking is a technique to hide or inserting data or information (Watermark Image) within the main digital data called host image, with some certain purposes. There are two types of watermarking, visible watermarking and invisible watermarking. In this final project, the kind of watermarking that we used is invisible watermarking, where the result from watermarking process does not giving the presence known by the human senses and able to deal with the processes of digital signal processing to some extent. Digital image processing in watermarking can be done in the spacial domain and frequency domain.

In this final project has been designed based watermarking android. Android is an operating system based Linux for cell phone. While the digital image processing using frequency domain, where the pixels are transformed into the frequency domain using the Discrete Wavelet Transform (DWT).

From the research, producing performance imperceptibility watermarking systems are good views of the value of MSE and PSNR. The highest PSNR value which result from this system is around 48,13 and MSE value 0,1 in host image Mawar512.bmp with logo image which inserted size 16x16 pixel However, the time watermarking embedding process on systems with host size 512x512 pixel image takes 3 times longer than the time of the insertion system on a small image host is 1347 milliseconds, while the image size of 256x256 pixels host takes 445milisecond.

Keyword:watermarking, copyright label, discrete wavelet transform, android