

Abstract

With growing technology, data can be represented in digital format. Data with a digital format more easily distributed by using the Internet. But sometimes the messages sent don't want to be known by others. System that can hide the existence of the message so it's existence isn't known. This system is steganography.

In this final project, use methods that produce the stego object in form of images by using Bit-Plane Complexity Segmentation (BPCS) and Error Control Code (ECC). ECC will be hidden object that will increase resistance to noise during transmission. And ECC will be embedded in the result of media images subband Lifting Integer Wavelet Transform (LIWT) with method BPCS. By using three methods is capacity of hidden object that can be embedded large and resistant to noise during data transmission.

The result test show that the system created by using threshold 0.3 can embedded a hidden object by 33% of the size of media image with PSNR quality level 32 dB. Meanwhile, the use of BCH can reduce bit error rate in extraction hidden object with increased 0.3 to 0.03 on bunga_128.bmp and 0.3 to 0.025 on daun_128.bmp.

Keywords: BPCS, LIWT, steganography, BCH, media image, *hidden object*