

ABSTRACT

Steganography is misused by irresponsible people nowadays. This technique is always used to hide crime message (such as terrorist community) and being sent to their teammate to attack another community. Their message probably can make a negative effect not only for their target but also public. For anticipating that problem, we can use a technique for detection secret message called steganalysis.

Steganalysis is a technique used to detect specific file, which is being hidden with secret message or not. This final project use Chi – Square Test in DWT domain and file, which is being researched, is image with .bmp format.

The results of its final project as a size of image testing affects system performance with accuracy 52.57% on row size 256 and 58.37% on row size 512. Using of db4 DWT gives a better result with accuracy 61.77% than haar DWT with accuracy 49.14%. The differences number of DWT decomposition affects system accuracy which are 58.59% on 1st level, 87.83% on 2nd level, 88.06% on 3rd level, 62.95% on 4th level, 51.23% on 5th level, 31.92% on 6th level and 25% on 7th, and 8th level. Among the four DWT coefficients, approximation coefficients give the best results with accuracy 65.74%. The using of DWT for detection hidden message with chi – square test gives an inverse probability compared to detection without DWT.

Keyword: Steganalysis, Discrete Wavelet Transform (DWT), Chi – Square Test