ABSTRACT

COMPARISON ANALYSIS REDUNDANT PATTERN ENCODING AND DISCRETE COSINE TRANSFORMATION METHOD AS STEGANOGRAPHY METHOD AT DIGITAL IMAGE

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Steganography is one way to hide data / secret message into a medium that does not contain anything. Steganography can be implemented on a variety of media, ie digital image, audio and video.

The method can be used on the steganography is Discrete Cosine Transformation (DCT). DCT function is a technique used to transform data from spatial domain to frequency domain by calculating the value of real constituent of the transformation. Other methods are then developed a Redundant Pattern Encoding. Methods Redundant Pattern Encoding of this insert redundancy into the information that would be hidden and then spread the message to the entire image.

These final two methods are applied to a digital image. Then the results were analyzed to compare the advantages and disadvantages of each method by comparing the size of files that can be accommodated, the size of the image before and after the inserted message and image quality before and after the inserted message.

From the test results known using steganography Discrete Cosine Transformation (DCT) methods, a media placeholder message (image carrier) can accommodate the text / message more than Redundant Pattern Encoding method, and by using DCT, the size of image files that have been inserted text / message smaller than the Redundant Pattern Encoding method. In addition the image quality is seen by calculating the value of PSNR (Peak Signal to Noise Ratio) by using Discrete Cosine Transformation (DCT) is better quality when compared with Redundant Pattern Encoding method.

Keyword: Steganography, Discrete Cosine Transformation (DCT), Redundant Pattern Encoding, Digital Image, Criptography