Abstract

Steganography is a means of hiding information within a more obvious form of communication. It exploits the use of host data to hide a piece of information in such a way that it is imperceptible to human observer. The major goals of effective steganography are High Embedding Capacity, Imperceptibility and Robustness. In this paper, the transform domain techniques of Image steganography have been discussed. The Orthogonal Transforms tested were DCT, DST, Haar and Walsh transform. The resultant stego images contained 4 different message images giving a 50% embedding capacity using these transforms. The message images have been normalized and then transformed to reduce the embedding error. The pixel values have been divided by a constant value of 255 to bring all the values into the range of 0.1 to 1.0. Therefore, High Embedding capacity has been achieved through the use of orthogonal
transforms using the technique discussed in this paper. The paper compares image steganography schemes that hide secret message into simple orthogonal transforms such as DCT [Discrete Cosine Transform], DST [Discrete Sine Transform], Hartley, Walsh and Haar. The experimental results show that using DCT transform for image steganography achieve much better results as compared to DST, Walsh and Haar.

References

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**Index Terms**

Computer Science

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**Keywords**

Stego Image   Cover Image