

ABSTRACT

Consumption of media storage and bandwidth are now become big issues in digital image data transmission and storage, to reduce that they should be compressed before transmitted and then decompressed to get their real information

In this final project the author try to develop an application of image compression using fuzzy algorithm for learning vector quantization based on wavelet transform and DCT (Discrete Cosine Transform) image compression. Hopefully with a learn process on vector quantization will be get optimal codebook that produce better compressed image with higher ratio.

According to the result of this final project, the value of MSE (Mean Square Error) and PSNR (Peak Signal to Noise Ratio) using fuzzy algorithm in vector quantization process is better than the LGB method. Futhermore the resulting ratio is higher in the same error level or MSE.

Keyword : image compression, Discrete Cosine Transform (DCT), wavelet transform, FALVQ , vector quantization.