IMAGE COMPRESSION USING DAUBECHIES & HAAR WAVELET

NOR SHAKILA BT IBRAHIM

BACHELOR OF SCIENCE (HONS) COMPUTER SCIENCE
FACULTY OF COMPUTER SCIENCE AND MATHEMATICS
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

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ABSTRACT

This project focuses on compress an images using Daubechies 4 Wavelet. Image compression techniques make efficient storage and transmission possible by reducing the amount of data needed to represent an image. Compressing an image is significantly different than compressing raw binary data. Of course, general purpose compression programs can be used to compress images, but the result is less than optimal. This is because images have certain statistical properties which can be exploited by encoders specifically designed for them. Also, some of the finer details in the image can be sacrificed for the sake of saving a little more bandwidth or storage space. The objectives of this project are to implement the Daubechies 4 wavelet transforms technique to compress an image according to the paper by Rismon and Sri Muliani (2003) and to evaluate the result of Daubechies 4 wavelet transforms technique in compressing an image. The scope of this project is the x-ray images of long bone with Jpegs format. From the experimental results, it shows that Daubechies 4 Wavelet transform can be used to compress an image through the decomposition and reconstruction process. In the future, this project needs enhancement to produce better result with implementing advance techniques.

Keywords: Image compression, Long bone Image, Daubechies 4 Wavelet, Decomposition, and Reconstruction

Table of Contents