

ABSTRACT

Image compression application purpose to minimize a data size for transmission process or storage. Because in this era bandwidth is a expensive things and limited. To solve that problem, the author develop digital image compression technique to minimize the bits sum which represent the digital image.

In this final project, the author also develop a lossy commpression method, that is image compression using combination discrete wavelet transform and adaptif scalar quantization. DWT (*Discrete Wavelet Transform*) is a technique to decomposite an image into four subbands i.e. diagonal subband, horizontal subband, vertical subband, and approximation subband. And adaptif scalar quantization is process to make a minimum value become a low presision value. The performance of this system is known by count PSNR (Peak Signal to Noise Ratio) and compression level.

Based on the simulation results, compression using discrete wavelet transform and adaptif scalar quantization has a good performance. The average PSNR are 31,228 dB, the average compression level are 61,412 %

Keywords : *Image compression, lossy compression, Wavelet Transformation, adaptif scalarr quantization, PSNR, compression level*