

ABSTRACT

Image compression is a technique that used for reduce unnecessary data in image. The unnecessary data will be remove for reducing image size. JPEG2000 is a common used image compression technique. That technique use a *wavelet* transform. Fast *wavelet* transform & Singular Value Decomposition (FWT-SVD) is hybrid transformassion method that used in this final papper. FWT will be use for transforming image with high correlation, and SVD will be use for transforming image with low correlation. For quantization process, *Graph Based Quantization* will be use. The result that came from the system are really great, where mean PSNR value is 54,25 dB and mean compression value is 64,72%, while compare to the result that given from JPEG2000, mean PSNR value is 58,64 dB.

Key word : *Fast Wavelet Transform, SVD, Graph Based Quantization, Huffman Coding, JPEG2000*