ABSTRACT

COMPARISON OF HUFFMAN AND *RUN LENGTH* ALGORITHM ON *JOINT PHOTOGRAPHIC EXPERTS GROUP* (JPEG) COMPRESSION

By

ERINDA PUTRI ANDARYANI

Image comprasion is one of compression technique to make storage and sending image file more effective. *Joint Photographic Experts Group* (JPEG) is one of international compression standard which is commonly used.

JPEG compression applies many kinds of algorithm on its compression process. Among many algorithms exists, Huffman and Run Length are compression algorithms which commonly used for JPEG compression. So it's necessary to be informed which algorithm is better for JPEG compression between both algorithm.

This research uses MATLAB programming language to make an application of JPEG compression by applying 2 (two) algorithms, Huffman and Run Length. This application shows file size, compression time, *Signal to Noise Ratio* (PSNR), and compression ratio aspect that will be used as comparator both compression algorithms.

Keywords: Image Compression, *Joint Photographic Experts Group* (JPEG), Huffman, *Run Length*, MATLAB, *Peak Signal to Noise Ratio* (PSNR)