

ABSTRACT

Development of telecommunication technology like IP TV is one of the reasons for streaming video into one very important area. The limited amount of bandwidth is one of the main constrain in transmitting data. To solve this problem, developed a digital video compression technique which is a technique to minimize the number of bits that represent a digital video data and decompression techniques for compressed digital video data to recover the digital video data before being compressed.

In this final task developed an adaptive compression technique in which streaming video compression system will perform based on the different transmission connection . The data compression will be performed at the transmitter side, the side of the video sender, and then the data is sent to the receiver as a video receiver. Video compression technique is performed using approach of the JPEG2000 compression standard, that use Wavelet transformation and Arithmetic Coding.

Based on the results of the simulation, video compression system using wavelet transformation and Arithmetic coding provides compression ratio that is high enough with the combination of wavelet decomposition levels and the effects of tiling at each transmission connection. The highest compression ratio is 1: 7.7 or 87.1%, with PSNR = 22.06 dB.

Keywords: *video compression, video streaming, DWT, Arithmetic Coding, JPEG-2000*