ABSTRACT

In multimedia images and videos are always related parts. Video consists of a series of images comprising a few pixels, to store and transmit video information necessary large capacity of memory and bandwidth.

To produce a high compression rate and the small bitrate then issued a coding standard in video compression and called AVC H.264 standard. H.264 has been designed Video Coding Layer and Network Abstraction Layer. Video Coding Layer on H.264 has the same basic elements with the previous video coding standards such as prediction, transformation, quantization and entropy coding. Modification of H.264 lies in the detail of the basic elements with the addition of deblocking filter.

In this final assignment is analyzed and simulated the performance of encoder - decoder H.264 by using Wireless LAN network. Video input taken from TV tuner, mobile phone camera and downloaded from internet. Entropy coding in H264 coding is CABAC (Context Adaptive Binary Arithmetic Coding). H264 encoder-decoder system uses Joint Model reference software (JM) 1.7, whereas for the analysis of H.264 coding techniques using application programs Evalvid Tool and NS-2 wireless IP 802.11 network for simulations.

In the system without passing through the Wireless LAN network model, maximum bitrate of the test results obtained at the Stefan video sequence is 8597.28 Kbps whereas the minimum bitrate for a video sequence obtained at the Naa 2276.66 Kbps. Maximum performance of H.264 encoding through Wireless LAN network model obtained on the QP region of 11 to 23 ranged from 38 dB to 41 dB. Equivalence results in a subjective rating scale with an objective rating scale, the characteristics of the input images do a lot of movement has the lowest value while the characteristics of the input image that is not much movement has a high value.