

ABSTRACT

The rapid development of digital technology causes people to need information quickly. The information needed can be in the form of photo files, video files, or audio files. In the process of information exchange, data size is the most important aspect. Video files are files that have the largest data size compared to other files. The relatively large size of video files can cause the file delivery process to take a long time and can even cause the delivery to fail because the media storage space exceeds its limit and consumes a lot of quota during transmission. Therefore, video compression is necessary. One video compression technique that is often used is Flow estimation. Flow estimation is a technique used to estimate the motion or flow of objects in the preceding and following frames. In recent years, deep learning has been widely applied in the field of video coding or compression. Based on various literatures, the use of deep learning in the Flow estimation algorithm can help improve the algorithm's ability to estimate object motion from frame to frame. Therefore, in this study the author will discuss how the simulation test results of video compression flow estimation using deep learning. Based on the tests that have been carried out, the best compression results are at the 100th epoch with a PSNR value of 32 dB and an MSE value of 0.001. These results are the best results that meet the standards of PSNR and MSE values.

Keywords: *Compression Video, Deep learning, Flow estimation*