

## ABSTRACT

To store and transmit data required cost in returns, therefore to reduce the cost we need to decrease the space needed for the data. Data compression is one of the ways to decrease the data without any significant data loss. One of the commonly used compression methods is the Discrete Cosine Transform (DCT), especially for image compression. However, for a highly compression rate, DCT methods creates what is called a blocky artifact, or disturbances in discontinuous image because of the compression process that is done block by block.

This final project is conducted to decrease the blocky artifact in order to give a better image quality in either objective or subjective opinion. In the end it also expected to enables a higher compression rate. It uses the symmetric convolution methods in the compression.

Using symmetric convolution method give 2.2272 dB objective value than the standar method. With subjective opinion MOS produce score 3.6867, or better than the standar one.