

## **Abstract**

Digital image compression is a method to minimize the file size of a digital image in the process of storage on a storage so that it can be stored or transmitted efficiently. In this final task, the algorithm used is JPEG by the addition of the complement of Deflate compressed. JPEG is selected because it is a digital image type that most frequently used on the device's current image even though the catcher suffered a decline in the quality of the images (lossy) but these can be tolerated by the decline of the human eye. The creation of complement is done by comparing the original digital image (before compression) with digital image compressed (JPEG). The results of the complement then stored in a file and is compressed by deflate algorithm . And obtained from lossless image of the merger is lossy image (JPEG) with file complement.

**Keywords :** *Digital Image Compression, Lossless Image, Lossy Image, JPEG, Complement, Deflate*