## **ABSTRACT**

In digital image processing, image that have passed the transmission and received by receiver is expected contain image data information completely, so it can be reconstructed by receiver. In fact, in the transmission process, the image data have been influenced by noise.

Filtering method has an important role to reduce the noise that consisted in image data. In this final project, we discuss about one of the filtering method, that is Median Filtering with impulse noise detection in an image using Fuzzy and Signal Dependent Rank Order Mean (SD-ROM) method. Then will be done a comparison analysis between image performance as the result of Median Filtering which completed by Fuzzy detection method and image performance as the result of Median Filtering which completed by SD-ROM detection method.

The criteria of comparison are subjective and objective. Gaining from testing process that image as the result of Median Filtering which completed by Fuzzy detection method have better quality than image as the result of Median Filtering which completed by SD-ROM detection method.

Keywords: filtering, impulsive noise, median filtering, Fuzzy and Signal Dependent Rank Order Mean