

## **ABSTRACT**

Alzheimer's disease is a common cause of dimensions suffered by people in the age group 65 years and above, Alzheimer's attacks brain cells that cause decreased memory, thinking ability and daily habits. Factors that influence the occurrence of Alzheimer's include protein deposition, lifestyle and genetics.

Currently to detect Alzheimer's disease the medics use images of brain structures otherwise known as Magnetic Resonance Imaging (MRI). However, MRI still has a drawback that is not explaining the classification of Alzheimer's disease. In this final task uses the Deep Learning Convolutional Neural Network (CNN) method, which will clarify medical analysis to classify Alzheimer's disease. The architecture used in this method is AlexNet, not only classifying, it is designed to calculate the accuracy, loss and precision obtained from testing. The process of classification of MRI image data will be processed and inserted into mild demented, moderate demented, non demented, very mild demented conditions.

The data used in the study amounted to 1264 which was then divided into 591 test data and 673 training data. The results obtained from the system testing are, accuracy 92%, loss 1.01 and precision 94.25%. The results were obtained using the composition parameters of 25% test data, 75% training data, Adam optimizer, learning rate 0.0001 and epoch 300.

**Keywords :** Alzheimer's, MRI, CNN, AlexNet