## Abstract

Nowadays, Data Mining is almost used in any fields and Data Mining is useful for human to help their activities. One of the functionalities that almost used on Data Mining is classification. Artificial Neural Network (ANN) is one of powerfull classification techniques. Prediction is one of superiority of ANN. ANN has capability such as memorizable, countable, generalizable, and adaptable. On this final project, classificication technique of ANN is combined with Feature selection.

Feature selection is done before entering classification phase. Feature selection is preprocessing phase for finding informative attribute. In other word, feature selection can be called as technique of dimension reduction to increase performance of classifier. After preprocessing, ANN is used for classification. To create classification system, ANN as a classifier have to learn in order to make a classification model. Then ANN is tested to know its performance.

The result of research is ANN that combine with feature selection can produce 96% accuracy.

**Keywords**: Discretization, Feature selection, Information gain, Artificial Neural Network, Backpropagation.