ABSTRACT

The customers themselves points out on their demands in having an excellent service. If the demands could be fulfilled the emigrations could be halted. Many studies have been done to estimate the risk value in telecommunication based companies, on of them is by doing Churn prediction. This prediction uses Deep Learning method to optimize the efectiveness in feature processing. In Deep Learning method, used the Deep Neural Network that is built by using Multilayer Perceptron system.

The fluctuation of the amount of subscribers is one of the biggest problem in Telecommunication based companies. In this final project, will be bulit a prediction system for the fluctuation of the amount of subscribers of mobile telecommunication service by using Churn prediction that is implemented by using Multilayer Perceptron architecture. Apart from using Multilayer Perceptron architecture, also done a system implementation by using Autoencoder to gain an optimal weight Of the methods and systems used to do the calculation using the F -Measure precision values obtained 70.2 % and amounted to 70.27 % Recall . For a value of 81.35 % accuracy on training data . Precision value obtained by 80.4 % and amounted to 63.07 % Recall . At a value of 83.12 % accuracy for data testing. With the value of accuracy is big enough then Deep Learning method viable for use in the prediction of Churn .

Keywords: Churn Prediction, Deep Learning, Deep Neural Network, Multilayer perceptron, Autoencoders