

## **Abstract**

To determine the nomination of students who deserve to receive scholarship, nowadays, calculation in MS Excel by adjusting criteria value based on particular range is used. Result from this method is not satisfied enough since in calculation still using Right and Wrong Logic( 1 and 0) from Boolean Logic, where the existing of small changes in certain value to result in significant category difference. And need a quite long time to work on it.

NeuroFuzzy approach NEFPROX is used to resolve that problem. A NEFPROX system is a fuzzy system trained by heuristic learning techniques derived from neural networks. Based on data training, heuristic learning in NEFPROX will extract fuzzy rules and adapt parameters of fuzzy sets. Then system will act like Fuzzy Mamdani. This method is a fast learner and give a quite good performance.

When NeuroFuzzy approach NEFPROX is implemented to determine the nomination of students who deserve to receive scholarship at STT Telkom, it results the smallest Mean Absolute Percentage Error that is 0,130100274 when the number of epoch is 1 and learning rate is 0,00000001.

**Keywords:** NeuroFuzzy, NEFPROX, fuzzy mamdani