

PREDIKSI KELULUSAN MAHASISWA MENGUNAKAN METODE BACKPROPAGATION

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ABSTRACT

Accuracy in graduation is one of the benchmarks for the integrity of the University, including Yogyakarta Technological University. From year to year, many UTU students do not graduate on time. Thus, it is necessary to have a system to predict graduation so that the guardian lecturer can direct students who are predicted to graduate late. The method used is Artificial Neural Network Backpropagation. The Backpropagation method has 3 architectures, namely the input layer, hidden layer, and output layer. The Backpropagation process includes feedforward and feedbackward. The data used is the graduation data in 2014. The initial data is 23543 records and after being processed into 377 records. Furthermore, the data is divided into training and testing with a ratio of 50:32. The division is based on the number of target data, namely 32 for passing on time and 345 for passing late. From various experiments with different features, namely IPS1 to IPS4, IPS1 to IPS4 and gender, IPS1 to IPS4 and the number of SKS for 4 meters, the highest testing accuracy is 96% for IPS1 to IPS4 features and gender.

Keywords: Artificial Neural Network, Backpropagation, prediction of graduation