

Abstract

Study period is one of the important parameters in the evaluation of student performance. Therefore, it is natural that study period is required by university management.

In this final project, prediction system is built by using Artificial Neural Networks with Differential Evolution as a training algorithm. Differential Evolution is one of the Evolution Algorithms, optimization algorithm based on evolutionary biology that exist in the real world. In contrast to others Evolution Algorithms that use random mutation, at Differential Evolution, mutation is carried out semi-directed mutation that can greatly affect the search for solutions that proved faster than Genetic Algorithm and Evolution Strategies. Differential Evolution is fast convergence and easy to use.

The data used in this final project is academic data in the form of Student Study Results. Variables are used as inputs to the prediction system is the value of several courses in the first and second years along with the number of times each student took the course. The output of prediction system is the students who graduate on time and the students who do not graduate on time. The best accuration produced by sistem is 75,9726.

Keywords: Artificial Neural Networks, Differential Evolution, study period.