ABSTRACT

In the agriculture sector, planting calendar is one of the ways or the strategies used to anticipate climate anomalies that occur. At planting calendar, there is a crooping pattern or cultivars that are arranged in an annual period (usually one year) and categorized per month or 10 days. Ranfall data is one of the factors that can be used as data to obtain predictions planting calendar.

The method implemented in this final project is an Artificial Neural Network where its structure and weights is optimized by Nested Genetic Algorithm. That optimized architecture used to obtain rainfall prediction data. That prediction data is what would later become a base in making planting calendar

Artificial Neural Network that improved by Nested Genetic Algorithm can find ANN architecture with 88.38% testing accuracy. However, from the testing result, indicating that there are still overfitting, so theArtificial Neural Network architecture only recognize the training data sets.

Keywords : planting calendar, rainfall, artificial neural network, genetic algorithm