

ABSTRACT

One of the biggest occupations in Indonesia comes from agricultural sector. Nowadays there are many problems come from agricultural sector, for example in Soreang, Bandung Regency. Starts from the changing of the weather that makes the farmer in Soreang always failed in harvest time, due to the plants that they have planted are not suitable with the rainfall intensity. Making a planting calendar is needed in order to decrease the risk of failure in harvesting.

Weighted Moving Average method and Evolving Fuzzy Algorithm will be used to do the Rainfall forecasting and planting calendar, especially planting calendar for corn plant, which is very useful for those farmers, due to they will know when is the proper the time to plant the corn.

The monthly rainfall data from 2005 till 2015 will be processed with Weighted Moving Average method for pre-processing and for determining the planting calendar of corn plant using Evolving Fuzzy. Genetic Algorithm will optimize Fuzzy parameters, which is generating an optimal fuzzy architecture to process the data of monthly Rainfall from Soreang, Bandung Regency.

The output's results from the training stage using Evolving Fuzzy will be used to make planting calendar of corn plant. The optimum result is training accuracy as big as 74.5918% with the testing accuracy as big as 79.9595%. based on the result of planting calendar shows that corn can't to plant at 2015.

Keyword: rainfall, planting calendar, weighted moving average, evolving fuzzy, genetic algorithm, fuzzy system.