ABSTRACT

The pattern of rainfall always changing in any place and time, that affects rainfall forecast data into time series. Information about weather especially rainfall its very usefull for some of our daily activity. So we need the accurate method for rainfall forecast, especially in Soreang area, Bandung.

The rainfall prediction system that used in this final project is Partially Connected Feedforward Neural Network (PCFNN) algorithm for one month rainfall prediction based on rainfall data from National Weather Board in Bandung for Soreang area. Besides that Genetic Algorithm method use in this final project to optimize structure and weight on PCFNN, so we will get the optimum structure and weight.

The optimal structure and weight from PCFNN using centered moving average and generated 20.000 individual solution with combine parameter on population size and maximum generation 100 and 200 so the average MAPE from training and testing are 17,583% with performance above 75%.

Keywords : prediction, rainfall, PCFNN, Genetic Algorithm, feedforward, centered moving average.