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PERKIRAAN PENJUALAN BEBAN LISTRIK MENGGUNAKAN JARINGAN SYARAF TIRUAN *RESILENT BACKPROPAGATION* (RPROP)

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Abstract

Forecasting is conducted to estimate data behavior based on historical data analysis and processing (time series data). Many estimation methods were developed to optimize the result. Artificial Neural Network (ANN) is one of the methods which are developed to get result of estimate near to the actual data. The research implemented artificial neural network Resilient Back propagation to predict sale of electrics burden. Used data for estimating are amount of consumer, burden expenses, and usage expenses, excess of usage expenses from Unit of Blimbing, Dinoyo, Kota and Kebonagung in January 2003 – December 2007. Training and testing ANN is conducted with modifying the number of neurons in the hidden layer and update value. Mean Square Error (MSE) for each unit is 0.00002832 for unit of Blimbing, 0.000197 for unit of Dinoyo, 0.00001836 for unit of Kota and 0.00000875 for unit of Kebonagung. Difference of MSE because of used data for input is differing and weight ANN is obtained at random. Prediction result or percentage of error rates between predicted data and actual data is 0.297% for unit of Blimbing, 1.743% for unit of Dinoyo, 0.597% for unit of Kota and 0.388% for unit of Kebonagung.

Keywords*: Artificial Neural Network, resilient back propagation, Forecasting*