

ABSTRACT

Together with the development of information technology, artificial neural network with backpropagation training can be use in many thing likes to forecast of air temperature.

In this final assignment is going to try to forecast the air temperature with some weather datas that consists of 6 parameters such as : average air temperature, humidity, amount of sunlight, rain fall, air pressure, and wind velocity.

Standard Backpropagation metode on Artificial Neuron Network has some classical problem. First is the time in training process is to long or to many iteration, and for the seconds is randomization in weightening. To overcome this problem, Conjugate Gradient Hestenes Stiefel Algorithm are used to reduce time in training and Multiple Linier Regression Algorithm to initiate the weight. With the combination of both algorithm it can reduce the epoch and MAPE

The results from testing is that using both algorithm can reduce the iteration when it compared to when using only one(CGHS). And for the accuracy is up to 96%

Kata kunci : . ANN, backpropagation, conjugate gradient hestenes stiefel, multiple linier regression, epoch, MAPE