

Abstract

In Indonesia, the weather is often difficult to estimate. for example we predict that the weather will be very cloudy and rainy, but in fact the rain didn't fall. That's why the institutions that conduct research in Indonesia make a weather prediction. However, the process that undertaken by the research institution quite long, so they need a method that can perform calculations quickly and accurately.

Back propagation is an algorithm which usually used to perform forecasting. On backporpagation which dealing with big case are usually need long learning progress, so we need special methods to acceleratte the learning perogress. It is conjugate gradient, a method that suit to speed up Back Propagation training process. The concept of this method is to change the direction of the gradien based by using gain values.

On this prediction system the learning process will perform on PC, while the prediction will perform on mobile devices. So it is necsessary to send data form PC to mobile devices. Globally, the concept to collect the data are using the web services. So after the training is done, the data will be stored into the cloud database. Then the web service will take the data from the database so the mobile device can read them. And then the mobile device will use the data to make prediction process.

Key : *bacpropagation, conjugate gradient, peramalan, mobile device*