Abstract

Expanding variety of information technology, GSM network traffic could be predicted based on the historical traffic data (time series). The aim of developing the system is to help for strategy decision in a business telecommunication company. Trend of traffic's growth could be looked using this system. So, the company can anticipate and use it as a guidance to re-engineering network element.

This final project is built to forecast GSM network traffic based on historical traffic data using Genetic Algorithm in Artificial Neural Network Training by looking their fitness value.

Data that used in this system based on Telkomsel West Kalimantan's historical traffic data from November 2006 to April 2007. Artificial Neural Network forecast traffic value in a day based on series input traffic value a few days before.

Keyword : *Artificial Neural Network, Genetic Algorithm, traffic, fitness value, time series data.*