

ABSTRACT

Gold is one of the preferred investment products because it is prone to rise. It takes a prediction or forecasting the gold price in order to get corresponding advantage and benefit that have been planned. Forecasts are made based on the past data which were analyzed. Several methods that can be applied to the prediction system is ARIMA and Neuro-Fuzzy Type 2 model.

In Neuro-Fuzzy Type 2 method, the data used is the training data. The data is divided into several clusters using the Self-Constructing Clustering method that is through the input similarity and output similarity test and produces some fuzzy type 2 rules. Parameters of the rules, antecedents and consequents, are find and optimized with Particle Swarm Optimization and Least Square Estimation.

The results of these experiments indicate that the gold price predictions using Neuro-Fuzzy Type 2 did not have significantly different error. However, the gold price prediction using ANFIS have significantly different error. In addition, gold price prediction using ARIMA depends on the gold price data. Neuro-Fuzzy method, both Neuro-Fuzzy Type 2 and ANFIS, in determination of the number of inputs affecting the gold price prediction results.

Keywords: Neuro-Fuzzy Type 2, gold price prediction, ARIMA, ANFIS