

ABSTRACT

FUZZY TIME SERIES MARKOV CHAIN HIGH ORDER FORECASTING METHOD USING AVERAGE-BASED

by

Diyah Ayuningtyas

24010118120012

Forecasting is a method used to estimate or suspect an event in the future. Fuzzy time series is one of the forecasting models used in predicting time series data, such as stock price data. Fuzzy time series markov chain is the development of the fuzzy time series method. Fuzzy time series markov chain is one method of forecasting whose values are formed into a fuzzy set and a combination of fuzzy time series with the rules of markov chain. Average-based is a method of determining the length of average-based intervals. High order is used to search and get the best forecasting by eliminating fuzzy duplication. The final settlement of forecasting problems is to analyze each order from the forecasting method using MAPE (Mean Absolute Percentage Error). In this study the results were obtained that the higher the order, the forecasting was getting better.

Keywords: Forecasting, Fuzzy Time Series Markov Chain, Average Based, High Order, MAPE