

ABSTRACT

Stock price index or indexes of stock prices is the price or value a group of stocks that are collected based on specific categories. This index is an indicator of stock price movements of all the stock it represents. Change in stock price index which is uncertain becomes consideration of the need for predictions of stock prices in the Indonesia Stock Exchange. One of the models that can be used to predict the stock price index is a Markov Chain and Fuzzy Stochastic Processes. The purpose of this study is to predict the stock price index in the Indonesia Stock Exchange and the error of the estimates using Fuzzy Stochastic Processes and Markov Chain. The results of the stock price index prediction using Markov Chain and Fuzzy Stochastic Processes of the data have MAPE (Mean Absolute Percentage Error) of 1.40355% for training data and of 0.01900404% for testing data.

Keywords: *Prediction of stock price index, Stock price index, Fuzzy Stochastic Processes, Markov Chain, MAPE*