

# **PENERAPAN FUZZY TIME SERIES-CHEN DALAM DATA HARGA PENUTUPAN SAHAM PT BANK NEGARA INDONESIA (Persero) Tbk. (IDX : BBNI)**

Oleh : Muhamad Yuslin Marzaen

Program Studi Statistika Fakultas Matematika dan Ilmu Pengetahuan Alam  
Universitas Islam Indonesia

## **INTISARI**

*Saham adalah kertas yang tercantum dengan jelas nilai nominal, nama perusahaan dan diikuti dengan hak kewajiban yang telah dijelaskan kepada setiap pemegangnya. Investor harus mengetahui fluktuasi harga saham setiap harinya, maka dari itu diperlukan kemampuan untuk meramalkan harga saham. Fuzzy time series dapat menyelesaikan masalah peramalan data historis berupa nilai linguistik Tujuan dari penelitian ini adalah untuk mengetahui gambaran data harga penutupan saham Bank BNI, meramalkan harga penutupan saham harian bank BNI dengan fuzzy time series model Chen, mengetahui tingkat kesalahan hasil peramalan dengan nilai AFER. Hasil penelitian diperoleh kesimpulan bahwa harga penutupan saham terendah sebesar Rp.6725 dan harga penutupan saham tertinggi sebesar Rp.8800 dengan nilai rata-rata dan standar deviasi masing-masing sebesar Rp.7638,060 dan 575,644. Hasil peramalan harga penutupan saham harian bank BNI pada periode berikutnya pada tanggal 17 Desember 2018 adalah Rp.8504 dengan akurasi peramalan 98,82%. Nilai data asli yang diperoleh adalah sebesar Rp. 8575 nilai MAE hasil peramalan dengan data real sebesar 1,016.*

**Kata Kunci :** Saham, Peramalan, *fuzzy time series* model *chen*

# **IMPLEMENTATION OF CHEN MODEL ON FUZZY TIME SERIES IN THE STOCK CLOSING PRICE DATA OF PT BANK NEGARA INDONESIA (Persero) Tbk. (IDX: BBNI)**

By : Muhamad Yuslin Marzaen

Department of Statistics Faculty of Mathematics and Science

Islamic University of Indonesia

## **ABSTRACT**

*Stock price is a paper clearly with the nominal value stated, the name of company and followed by the rights agreed upon by each holder. Investors must know the fluctuations in stock prices every day, and therefore the ability to predict stock prices is needed. Fuzzy time series can solve the problem of forecasting historical data in the form of linguistic values. The purpose of this study is to find out the description of the closing price of Bank BNI, forecast the price of closing BNI bank daily stock with Chen's fuzzy time series, knowing the level of estimated result error with the AFER value. The results of the study concluded that the lowest share closing price is 6725 IDR and the highest closing price of shares was 8800 IDR with an average value and standard deviation of 7638,060 IDR and 575,644. The forecasting result of the closing price of BNI daily shares in the next period on December 17, 2018 is 8504 IDR with forecasting accuracy is 98.82%. The value of the original data obtained is 8575 IDR which states the MAE value of forecasting results with real data is 1,016.*

**Keywords:** Stock price, forecasting, chen model on fuzzy time series