

## *Abstrak*

Stock are securities indicates the ownership company that shareholder have authorization for dividends or other distribution by company to other shareholder. Stock is one of the several alternative to investing. By buying stocks, we have invested some of funds with the hope to get a gain from the sale of company's return. Up and down stock price influenced by several factors, that : profit per share, interest rate, amount of the dividends, amount of profit company, level of risk and return, and marketing strategy (Weston and Brigham(2001:26)). Many research with various method that have been done to develop this prediction system. However, there are many prediction system was built using artificial neural network method. Therefore, the author tries to build the sock price prediction system using ls-svm (least square support vectore machine).

This final project build stock price range prediction sytem using LS-SVM (Least Square Support Vector Machine) to overcome the weakness from support vector machine method in terms of the complexity data that will affect the speed of data processing. Method LS-SVM (Least Square Support Vector Machine) overcome a problem that exist in transformation quadratic into liniear equation. This is affecting the complexity of existing on svm method becomes more simple and doesn't take a lot of memory in data processing. In this final project the author build a stock price range prediction system using LS-SVM (Least Square Support Vector Machine)

Time series data used a data set obtained from the stock price <http://finance.yahoo.com/q/hp?s=BNGA.JK&a=11&b=11&c=2003&d=10&e=27&f=2013&g=d>. Data set used in this research is the hystorical data of Bank CIMB Niaga Tbk, on 11 December 2003 to 27 November 2013.

**Keyword** : Stock price, SVM, LS-SVM, Time series.