

ABSTRACT

System that is able to analyze stocks using several methods at once and can provide notification to the mobile device or can buy and sell automatically has never been made before. So in this final project will be created a system that can do that.

The system works by using real time stock data as input from some companies that will be analyzed. Then the system will calculate three MA (moving average) values of each company, then the value will be used as reference for analysis by using an artificial Intelligence that is knowledge based system. Knowledge that used in here are MACD (Moving Average Convergence / Divergence) method and resistant *support* method. MACD will work by comparing 3 MA values of each company then determines the instructions to make a sale or not. While *support* resistance works by comparing three MA values with the current stock price, and then determine instruction to make a sale or not. After that the instruction data will be entered into a database and then the application in user's smartphone will access the data, then displays a notification if it found the instruction. Users also can arrange for the system to make trades automatically, where the system will control the mouse and keyboard to make the sale or purchase of shares.

After the system tested, the instruction obtained from the MACD are 56 instructions to purchase with 100% profit, and 153 instructions to sale with 49.01% profit, 35.94% loss and 15.05% not pofit and not loss. As for the instruction from the *support* resistance are 386 instructions to purchase with 100% profit, and 113 instructions to sale with 36.28% profit and 16.81% loss and 46.91% not profit and not loss.

Keyword : artificial intelligence, knowledge based system