

## **Abstract**

*Stock price of a company is always changes everyday. The positive changes will certainly benefit for the investors, but the negative changes is definitely pose a risk for inversor. Risk arises due the fluctuations or uncertainties stock price that affect of investor's decision making. There should be an analysis of the stock price to reduce the level of risk. Technical approach is one of the stock price analysis method with observed the changes in stock prices in the past. Technical analysis has been widely used for stock prediction problem because it easy to obtain the historical data. Usually the investor will use more than 1 kind of technical analysis as a reference in predicting stock prices. But in the practice it is difficult because each technical analysis has a different formula. Therefore, we need a system that can help the process of computation and we need algorithms that can process the predicted value, so that a combination of both resulted in a formula that can be used to predict stock prices accurately. GP algorithm is an algorithm that can be use to process the input data and produce a formula that can be used for various purpose, in this case the prediction problem. Prediction formulas derived from implementation of GP algorithm with a variable terminal is stock price prediction from technical analysis resulted very small value of MAPE, that is 0,126394 %, so the formula is suitable to used to predict various stock prices.*

*Keywords : stock price prediction, technical analysis, Genetic Programming Algorithm (GP)*