ABSTRACT

HASBI. Optimization of Technical Indicators Based on Genetic Algorithm in Stock Exchange.
Under direction of YENI HERDIYENI, and SONY HARTONO WIJAYA

Stock trading is become popular in Indonesia. The generation of profitable trading rules for stock exchange investments is a difficult but popular problem. The use of Machine Learning in this problem is to obtain objective results by using information in the past market behavior. In this research, genetic algorithm is used to automatically generate trading rules based on Technical Indicators. The method in this research used Hirabayashi (2009) model and also modification model of Hirabayashi by adding 2 additional technical indicators. The results shows that Hirabayashi Model and Modification Model generate better profit result compare with buy and hold strategy in small capitalization stock or big capitalization stocks in Indonesian Stock Exchange. By using Genetic Algorithm, some of the technical indicators could be ignored. It’s also found that modification model could adapt the price trend better than Hirabayashi Model.

Keywords: stock, technical indicator, genetic algorithm.