ABSTRACT

Stock price prediction is one of many important researches in economic field. In practice, stock price may be predicted with the technical analysis approach. Technical analysis based on the principle of using historical data to predict stock price movement in the future. The aim of this project is to implement of Principal Component Analysis and Hidden Markov Model in the Technical Analysis for stock price prediction.

The prediction system uses daily stock data of JKSE.JK, BBNI.JK, and ANTAM.JK. The result of the experiment shows that PCA with HMM performed well and gives the Mean Percentage Error (MAPE) of 0,727%.

Keywords: *stock price prediction, time series, Principal Component Analysis, Hidden Markov Model*