

Abstract

This study aims to predict the rising trend of IHSG (formerly known as Jakarta Composite Index, JCI or JSX Composite) using Support Vector Machine method. To predict the rising trend of IHSG used four feature input, there are Dow Jones Industrial Average Index (DJIA), iShares MSCI Indonesia Investable Market Index Fund (EIDO), Exchange Rate against the United States Dollar (Exchange), and JCI in the period May 2010 until June 2014. The use of kernel trick on SVM method is expected to be classified linearly with RBF kernel and polynomial functions on non-linear separable data, which the data processing of feature input using 5 K-Fold Cross-Validation in order to find the best validation.

The results showed that the SVM method using Gaussian kernel function Radial Basis Function (RBF) is not optimal in predicting the trend of rising in JCI, this is evidenced by the average of the best testing accuracy of 62.8963 % on a combination of feature input IHSG against EIDO EIDO (iShares MSCI Indonesia Investable Market Index Fund).

Keywords: IHSG, Support Vector Machine, Feature Space, Hyperplane, Kernel Trick.