Informatics Institute of Technology
In collaboration with
University of Westminster, UK.

A Hybrid Solution for Stock Market Symbol prediction

A dissertation by
Mr. J. A. Danura Ishara Jayakody

Supervised By
Dr. Thilak Chaminda

Submitted in partial fulfillment of the requirements for the

BSc (Hons) Computer Science degree
Department of Computing

May 2018

Abstract

When it comes to prediction, it's always a complicated and challenging process. Sometimes it might not helpful to use traditional methods of prediction with your requirement. Stock market prediction has been an interesting area due to its impotency. This report is containing the information based on a research conduct in stock market prediction and suggesting an alternative hybrid system did by using KNN (K Nearest Neighbor) algorithm (unsupervised) and a supervised algorithm which is rich with a higher accuracy level. The system is getting an accuracy of 65% to 75% when using only the KNN algorithm and to improve the accuracy of the system another algorithm has been written and sorting the results coming from the 1st algorithm. When this step was done the accuracy was climb up to 85% to 90% and its different from symbol to symbol. However, the overall accuracy is in between 80% to 90%. All the statistics and graphs are included in the report under the relevant chapters.

The proposed system has been evaluated and tested and all the test results, design, implementation and documentations are expressed in an efficient manner.

Key Words:

Data mining, Stock Prediction, Machine learning