Visvesvaraya Technological University

**Jnana Sangama, Belgaum – 590014, Karnataka**



A PROJECT REPORT

ON

**Stock Market Prediction Using Machine Learning**

Submitted in partial fulfilment of the requirements for the award of the Degree of **Bachelor of Engineering** in **Computer Science & Engineering**

for the academic year 2017-2018

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**CERTIFICATE**

This is to certify that the project work entitled **“Stock Market Prediction Using Machine Learning”** has been carried out by **AKSHAY R P PUROHIT** (1ST14CS010), **ARAVIND B** (1ST14CS023), **ARUN KUMAR R** (1ST14CS025), **ASHOK S** (1ST14CS027), bonafide students of **Sambhram Institute of Technology** in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of the **Visvesvaraya Technological University, Belgaum** during the year **2017-2018**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements with respect to its work prescribed for the said degree.

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**ABSTRACT**

Time series forecasting has been widely used to determine the future prices of stock, and the analysis and modelling of finance time series importantly guide investors’ decisions and trades. In addition, in a dynamic environment such as the stock market, the non-linearity of the time series is pronounced, immediately affecting the efficacy of stock price forecasts. Thus, this work proposes an intelligent time series prediction system that uses sliding-window metaheuristic optimization for the purpose of predicting the stock prices of multiple companies taken at random. It may be of great interest to home brokers who do not possess sufficient knowledge to invest in such companies. The system has a graphical user interface and functions as a stand-alone application. The developed hybrid system exhibited outstanding prediction performance and it improves overall profit for investment performance. The proposed model is a promising predictive technique for highly non-linear time series, whose patterns are difficult to capture by traditional models.

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