# **ABSTRACT**

The stock market is an intriguing assiduity to study. There are colorful variations present in it. Numerous experts have been studying and probing on the colorful trends that the stock market goes through.

One of the major studies has been the attempt to prognosticate the stock prices of colorful companies grounded on literal data Vaticination of stock prices will greatly help people to understand where and how to invest so that the threat of losing plutocrat is minimized.

The proposed system works in two styles – Regression and Classification.  
In Regression, the system predicts the ending price of stock of a company.  
In Classification, the system predicts whether the ending price of stock will increase or drop the coming day.

We also use Sentiment Analysis as a supporting factor to determine request sentiment of a particular stock as user sentiment plays a huge part in determining stock prices.

**ACKNOWLEDGEMENT**

We are truly thankful and convey our sincere gratitude to the honorable principal **Dr. T. Chandrashekar,** Rajarajeswari College of Engineering, Bangalore.

We convey our sincere gratitude to **Dr. S. Usha***,* Professor & HOD, Dean (Research), Department of Computer Science & Engineering for her meticulous support, continuous co-operation, valuable suggestion, and encouragement during the development of the project. We also extend our thanks for her valuable guidance to imbibe the requisite knowledge for the success of our project.

We convey our sincere gratitude to **Mr. Srinivasa R**, Associate Professor, Department of Computer Science & Engineering, for his meticulous support continuous co-operation, valuable suggestions, and encouragement during the development of the project. We also extend our gratitude for his guidance to imbibe the requisite knowledge for the success of our project, as an internal guide. We are very much obliged.

We also thank our parents who have encouraged and supported us in every stage of development of this project.

Last but not the least, our wishes to the entire Computer Science Department for their help and guidance, encouragement, inspiration, and co-operation at all stages of the development of this project without which this project wouldn’t have been a success.

Finally, we express our heartfelt gratitude to all those who helped us to complete the project work successfully by providing support, suggestions, advice, guidance, and much-needed encouragement.

PRAJWAL V BAGARE (IRRI8CS100)

SAGAR JAGANNATH SUTAR (1RR18CS116)

SUDHARSHANA V P (1RR18CS142)

SUNEERAJ K S (1RR18CS144)

**CONTENTS**

Page No

Acknowledgement………………………………………………………… i

Abstract…………………………………………………………………… ii

List of Figures…………………………………………………………….. iv

1. Introduction

1.1 Exixting System…………………………………………………. 1

1.2 Problem Statement………………………………………………. 1

1.3 Motivation……………………………………………………….. 1

1.4 Objective of the work……………………………………………. 2

2. Literature Survey

2.1 Literature Survey………………………………………………… 3

3. System Requirment and specification

3.1 System Analysis………………..………………………………. 7

3.1.1 Feasibility study ………………………………………. 7

3.2 Functional Requirments .……………………………………… 8

3.3 Non-Functional Requirments………………………………… 9

3.4 Tools and Technologies Required….………………………….. 9

4. System Design

4.1 System Architecture…………………………………………. 10

4.2 Input/Ouyput Design ………………………………………….. 11

4.3 Object Oriented Design .……………………………………… 12

4.3.1 Sequence Diagram ……….………………………… 12

4.3.2 Activity Diagram………………………………………. 13

4.3.3 Dataflow Diagram……………………………………. 14

4.4 Algorithm ……………………………………………………… 14

4.4.1 Multivariate linear Regression ..…………………… 14

4.4.2 Random Forest ……………………………….…….. 16

4.4.3 Neural Networks using Backpropogation Algorithm … 16

**List of Figures**

Page No

Figure 4.1: System Architecture………………………...……..…… 10

Figure 4.2: User Interface Prototype…..….….….….…..………..... 11

Figure 4.3: Sqquence Diagram……………………………………. 12

Figure 4.4: Behavioral Diagram…………………………………... 13

Figure 4.5: Dataflow Diagram……………………………………. 14

Figure 4.6: Random Forest Diagram……………………………… 16

Figure 4.7: Neural Network Structure with Backpropogation .….. 17