**ARTIFICIAL INTELLIGENCE BASED SYSTEM FOR EDUCATIONAL INSTITUTIONS**

*A Project report submitted in partial fulfilment of the requirements*

*For the award of the Degree of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE ENGINEERING**

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### ABSTRACT

Forecasting stock market prices has always been a challenging task for many business analysts and researchers. In fact, stock market price prediction is an interesting area of research for investors. For successful investment, many investors are interested in knowing about the future situation of the market. Effective prediction systems indirectly help traders by providing supportive information such as the future market direction. Data mining techniques are effective for forecasting the future by applying various algorithms to data.

This project aims at predicting the stock market by using financial news, Analyst opinions and quotes in order to improve quality of output. It proposes a novel method for the prediction of the stock market closing price. Many researchers have contributed in this area of chaotic forecast in their ways. Fundamental and technical analyses are the traditional approaches so far.

**ACKNOWLEDGEMENT**

We would like to express our heartfelt gratitude to **Prof D. Deepak Chowdary,** Principal and to **Sri. Syed Mujib Rahaman**, Vice- Principal, Dr. L. Bullayya College of Engineering for giving us the opportunity to do this project.

We would like to thank **Dr. D. Madhavi,** HOD, Department of CSE, Dr. L. Bullayya College of Engineering, Visakhapatnam, for her guidance in producing this work.

We are deeply indebted to our project guideand the head of research cluster **“**Automated Reasoning For Human Centered Interactive Systems**” Dr. D. Madhavi** Professor, Department of Computer Science Engineering, Dr. Lankapalli. Bullayya College of Engineering, Visakhapatnam, for guiding us throughout the project in spite of her busy schedule.

Apart from the efforts, the success of this project depends largely on the encouragement of other faculty of CSE, Dr. Lankapalli. Bullayya College of Engineering, Visakhapatnam. We take this opportunity to express my gratitude to the entire faculty who has been instrumental in the successful completion of this project.

Also deserving of thanks for our family and friends, for their support and for their confidence in our achievements.

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**DECLARATION**

This is to declare that the Project work entitled “**Artificial Intelligence Based System for Educational Institutions”** is a bonafide work done by us under the research cluster group “Automated Reasoning For Human Centered Interactive Systems” with the esteemed guidance of Dr.D.Madhavi, Professor, Department of CSE, Dr.L.Bullayya College of Engineering. This project report is being submitted in the partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science Engineering during the academic year 2021-2022. This project possesses originality as it is not extracted from any source and it has not been submitted to any other institutions and university.

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**CHAPTER 1: INTRODUCTION**

Modeling and Forecasting of the financial market have been an attractive topic to scholars and researchers from various academic fields. The financial market is an abstract concept where financial commodities such as stocks, bonds, and precious metals transactions happen between buyers and sellers. In the present scenario of the financial market world, especially in the stock market, forecasting the trend or the price of stocks using machine learning techniques and artificial neural networks are the most attractive issues to be investigated.

All the changes in prices of the financial market are based on immediate economic events or news. Investors are profit-oriented, their buying or selling decisions are made according to most recent events regardless of past analysis or plans.

**1.1 BACKGROUND AND MOTIVATION**

Most people don't have enough time to research stock and its fundamentals. Due to which they are unable to make a good portfolio and make losses while trading. Hence, we have developed a user-friendly investing solution wherein a beginner level investor can create a portfolio and get future prices.

**1.2 PROBLEM STATEMENT**

The stock market appears in the news every day. You hear about it every time it reaches a new high or a new low. The rate of investment and business opportunities in the Stock market can increase if an efficient algorithm could be devised to predict the short term price of an individual stock.

Previous methods of stock predictions involve the use of Artificial Neural Networks and Convolution Neural Networks which have an error loss at an average of 20%.

In this report, we will see if there is a possibility of devising a model using Recurrent Neural Network which will predict stock price with a less percentage of error.

**CHAPTER 2: REQUIREMENTS ELICITATION AND ANALYSIS**

**2.1 EXISTING SYSTEM**

In the existing system the stock price is predicted using Machine Learning, Deep Learning algorithms but they face many downsides such as Estimation Error and other being the unreliability of the covariance matrix, etc. While in existing portfolio optimization software the portfolio is already curated and created by the experts. They don't allow users to select a sector for investing.

**2.2 PROPOSED SYSTEM**

Stock market forecast is a huge subject and has a lot of parts on which we can investigate upon, but one object all models have in common is their check on correctness of how well the models practical can fit to a given dataset and is it identical the results and forecasting correctly or not. each model has a few effects in common, they all need a list of companies of any stock exchange to forecast upon the three basic situations of market buy, hold, and sell and to do this the stock market data for each company against their tickers was stored in machine (to avoid larger accessing time) and data manipulations were performed in order to prepare the dataset for additional machine learning classifiers which will ultimately forecast the marks and deliver the output.To plaid the practicability of the overhead model the given productivity will be plaid and coordinated alongside the graph of the definite company for that period of time and distinguish the patterns. As a future Scope in our project we will further use a quantopian online platform for emerging trading approaches and back testing them, we will use it to advance a plan on quantopian and back test it to check the possibility.