**SYNOPSIS**

**YEAR/BRANCH AND DIVISION:** BE(E&TC) DIV: 1  **GROUP NO.:** A19

**TITLE: Stock Price Predictions using Machine Learning**

**OBJECTIVES:**

* To Develop a prototype to estimate the price of a given stock in the near future.
* To use Machine Learning Conception to develop the proposed model.
* To use the LSTM model for the planned system for maximum accuracy.
* To develop an algorithm with maximum efficiency.
* To develop a deep understanding of all the concepts used in the proposed model.
* To resolve errors or problems if encountered while making the proposed model

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**INTRODUCTION:**

Machine learning (ML) is a type of artificial intelligence ([AI](https://searchenterpriseai.techtarget.com/definition/AI-Artificial-Intelligence)) that permits software applications to develop more precise at forecasting consequences without being explicitly encoded to do so. Machine learning algorithms use historical data as input to predict new output values.

These features of Machine Learning (ML) are used in various application like Medical Diagnosis, Speech and Image recognition, Stock-market trading, Self Driving Car, etc.

**BLOCK DIAGRAM:**

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Figure 1: Block Diagram of Method

**BLOCK DIAGRAM DESCRIPTION:**

Our project is a recurrent neural network-based Stock price Prediction using machine learning. For a successful investment, many investors are very keen on predicting the future ups and downs of share in the market. Good and effective prediction models help investors and analysts to predict the future of the stock market

SAMPLE SIZE:

The sample contains data of 30 days of a given share (opening price, closing price, high, low, etc.) which will be collected from any broker website. The dataset is publicly available. For learning task, there are many datasets of both heavy and light revision, available on the internet

SAMPLE SELECTION:

Stock market is widely acknowledged to be significant as no. of. Investors are increasing day by day. To address this, data of various stocks has been

**ADVANTAGES** **& APPLICATIONS:**

* The use of external data sources along with traditional metrics leads to improve the prediction performance
* The prediction models benefit from the feature selection and dimensional reduction techniques.
* The prediction performance dominates the related works. Finally, a decision support system is provided to assist investors in making trading decision on any stocks.

**CONCLUSION:**

The smarter solutions help our world to become smarter and have a secure and bright future ahead. With an optimistic vision, our project will help in the reduction of losses and maximization of profit. In this Stock Market Price Prediction project, we use Machine Learning and the LSTM model to analyze the past prices of a stock, process it, and then forecast the price in the upcoming future. This concept is used to describe the path for Stock Market Trading and to avoid the risk of getting huge losses.

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