**MACHINE LEARNING TECHNIQUES FOR STOCK PRICE FORECASTING: A COMPARATIVE STUDY**

*A project report submitted in partial fulfillment of the requirements for the award of the*

*Degree of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE ENGINEERING**

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**CERTIFICATE**

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**ABSTRACT**

For many business analysts and academics, forecasting stock market values has always been a difficult undertaking. Indeed, stock market price forecasting is a fascinating field of study for investors. Effective prediction systems assist traders indirectly by giving supportive information such as market direction in the future. This project tries to increase the quality of output by anticipating stock market movements using financial news, analyst opinions, and quotes. It presents a revolutionary method for predicting the closing price of the stock market. Many researchers have contributed in some way to the field of chaotic forecasting. For stock market prediction, another common method for identifying unknown and hidden patterns in data is ANN. We investigate the problem of stock market forecasting utilizing a Recurrent Neural Network (RNN) with Long Short-Term Memory (LSTM) in this project. The goal of this study is to look at the feasibility and performance of using LSTM to forecast stock market movements. We optimize the LSTM model by experimenting with various configurations, that is a multi-layered feed-forward neural network is built using a combination of data mining and machine learning. The Backpropagation Algorithm, which is used to predict share market closing prices, is utilized to train the Neural Network on stock quotes.

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