

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 010



PROJECT REPORT ON

**"TRADIFY: DEEP LEARNING-POWERED STOCK
MARKET FORECASTING"**

Submitted in partial fulfillment of the requirements for the award of degree
**BACHELOR OF ENGINEERING IN
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

Submitted By

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Under the Guidance of
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ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)

Affiliated to Visvesvaraya Technological University, Belagavi &

Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NAAC with A+ Grade

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka

2023-2024

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

CERTIFICATE

Certified that the project work entitled **"TRADIFY: DEEP LEARNING-POWERED STOCK MARKET FORECASTING"** is a bona fide work carried out by

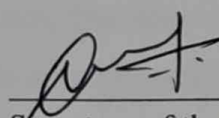
DEEKSHITH R

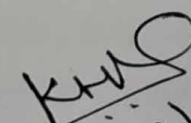
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in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

 14/5/24
Signature of the Guide
Dr. Ramesh G

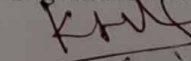
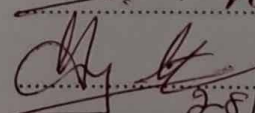
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ABSTRACT

In the ever-changing world of financial markets, accurately predicting stock values poses a significant challenge. This study addresses this challenge by integrating real-time data analysis with advanced methodologies such as Sentiment Analysis, Linear Regression, and Long Short-Term Memory (LSTM) networks. LSTM's capability to identify complex patterns in time series data is leveraged, while Sentiment Analysis adds a qualitative dimension by gauging market sentiment from textual data. Linear Regression complements LSTM by establishing correlations within the data. Through empirical investigation, this research demonstrates the efficacy of combining these methodologies, achieving a predictive accuracy of 97% in stock price modelling. The results underscore the importance of real-time data integration and the synergistic benefits of employing diverse analytical techniques. By integrating these approaches, latent insights are unearthed, facilitating more strategic financial forecasts and informed investment decisions. This study highlights the potential for improved forecasting accuracy and enhanced decision-making in the realm of financial markets.