**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

#### JNANA SANGAMA, BELGAUM - 590018, KARNATAKA



**PROJECT REPORT   
 on**

#### AI TRADING BOT

Submitted in partial fulfilment of the requirements for the award of the degree of  
 **Bachelor of Engineering in Information Science and Engineering** of Visvesvaraya Technological University, Belagavi

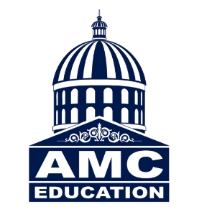
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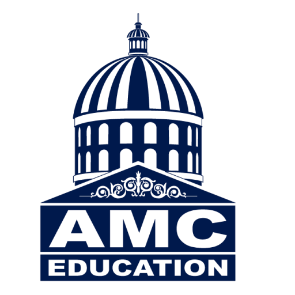
**2023 - 2024**

**ACCREDITED BY NAAC A+ & NBA, MINISTRY OF HRD, NEW DELHI**

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**CERTIFICATE**

Certified that the project work entitled **“AI TRADING BOT”** has been successfully   
completed by **SHAIK ARSHIYA (1AM20IS086), SNEHA NAGARAJ SHET (1AM20IS095), VINUTA S SINNUR (1AM20IS109)** and **VISHARAD VIDYASAGAR (1AM20IS110)** all bona fide students of **AMC Engineering College, Bengaluru** in partial fulfilment of the requirements for the award of degree in **Bachelor of Engineering in Information Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2023-2024**. The project report has been approved as it satisfies the academic requirements in respect of project work for the said degree.

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# DECLARATION

##### We, the student of final year Information Science and Engineering, AMC Engineering College, Bengaluru, hereby declare the project entitled “AI Trading Bot” has been independently carried out by us under the guidance of Mrs. Nagashree K T, Assistant Professor, Information Science and Engineering, AMC Engineering College, Bengaluru and submitted in partial fulfillment of the requirements for the award of the degree in Bachelor of Engineering in Information Science and Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

##### We also declare that, to the best of our knowledge and believe the work reported here does not form or part of any other dissertation on the basis of which a degree or award was conferred on an early occasion of this by any other students.

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# ACKNOWLEDGMENT

At the very onset, we would like to place our gratitude on all those people who helped us in making this project a successful one.

Coming up, this project to be a success was not easy. Apart from the sheer effort, the enlightenment of our very experienced teachers also plays a paramount role because it is they who guide us in the right direction.

First of all, we would like to thank the **Management of AMC Engineering College** for providing such a healthy environment for the successful completion of project work.

In this regard, we express our sincere gratitude to the Director **Dr. K Paramahamsa** and the Principal **Dr. K Kumar,** for providing us all the facilities in this college.

We are extremely grateful to our Professor and Head of the Department of Information Science and Engineering, **Dr. Amutha R.**, for having accepted to patronize us in the right direction with all her wisdom.

We place our heartfelt thanks to **Mrs. Nagashree K T**, **Assistant Professor,** Department of Information Science and Engineering for having **guided** us for the project, and all the staff members of our department for helping us out at all times.

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# ABSTRACT

The project titled "**AI Trading Bot**" project aims to develop an innovative system that is designed to automate trading decisions by analyzing both historical and real-time market data, revealing hidden patterns, predicting future trends, and executing trades with precision by using   
***Long Short – Term Memory (LSTM).***

The primary objective is to achieve maximum profits with minimal risk, surpassing the results of conventional human trading strategies. To accomplish this, the project will delve into a range of advanced AI techniques and strategies such as ***Golden Cross*** and ***Death Cross***, assessing their performance across varying market conditions. The AI Trading Bot holds the promise of reshaping the finance industry, making trading more efficient and accessible for everyone.

The Project utilizes ***Meta Trader5*** and ***Pine Connector*** tools for Comprehensive price analysis, access real -time market data, managing trading accounts and making the trading process seamless and efficient. Beyond its technical goals, the project is committed to adhering to all ethical standards and financial trading regulations. Success will be gauged through rigorous testing in simulated and real-world trading scenarios, ensuring the bot's reliability and robustness. This project represents a significant step forward in automated trading systems, combining advanced AI techniques with proven trading strategies to maximize profitability in the stock market. It demonstrates the potential of AI in transforming the financial industry, making trading more accessible, efficient, and profitable.

The bot will analyze historical and real-time market data, identify patterns, predict future trends, and execute trades accordingly. The goal is to maximize profits while minimizing risk, outperforming traditional human trading strategies. The project will explore various *AI* techniques, including reinforcement learning and deep learning, and will evaluate their effectiveness in different market conditions. The purpose is to develop a model to enable AI-based trading bots to predict price components (open, high, low, and close prices) of the next 1-min to 30-min, 1-h, and 4-h candlesticks for***NASDAQ*** Market.

***Keywords: Artificial Intelligence (AI), LSTM, Death Cross, Golden Cross, Meta Trader5, Pine Connector, National Association of Securities Dealers Automated Quotations (NASDAQ).***

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