## ArtificialIntelligence

## and

## Machine Learning

Project Abstract

Semester-IV (Batch-2022)

Music Recommendation System

A red and white sign

Description automatically generated with low confidence

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**Title:** A Machine Learning-Based Stock Prices Predictor Using Time Series

**Abstract:**

Stock Market Prediction helps you determine the future value of company stock and other financial instruments traded on an exchange. The design of such predictive models requires the choice of appropriate variables, right transformation methods of the variables, and tuning of the parameters of the models. Predicting stock prices is a challenging task due to the complex and dynamic nature of financial markets. Time series data, which represents the sequential order of stock prices over time, holds valuable patterns and trends that machine learning algorithms can leverage for accurate predictions. This paper demonstrates a set of time series, econometric, and various learning-based models for stock price prediction. The data from the period of January 2021 to December 2023 will be used here for training and testing the models to know which model performs best in which sector. By successfully implementing this project, we aim to provide investors, financial analysts, and traders with a powerful tool for making informed decisions based on accurate stock price predictions. The integration of advanced machine learning algorithms with time series analysis is expected to enhance the reliability of stock market forecasting, contributing to more effective investment strategies.