

Stock Market Price Prediction Using ARIMA Model

Karthik C¹ and Priyanka Mohan²

Student MCA, IVth Semester¹

Assistant Professor, Department of MCA²

Dayananda Sagar Academy of Technology and Management, Udayapura, Bangalore, Karnataka, India

karthikschandrs@gmail.com and priyanka-mca@dsatm.edu.in

Abstract: *Stock market price prediction involves forecasting future stock values using techniques like technical analysis, fundamental analysis, and machine learning. Technical analysis looks at historical price movements, while fundamental analysis evaluates a company's financial health. Machine learning models use large datasets to identify patterns. This paper introduces a vital approach to time series analysis and forecasting, emphasizing its widespread practical applications. Time series data consists of an ordered sequence of data points recorded at equal time intervals. The stock market, one of the most complex financial systems, experiences significant fluctuations in stock prices over time. Stock market forecasting aims to uncover market trends and help investors maximize returns while minimizing risks. Given the market's sensitivity to rapid changes, this research focuses on developing innovative approaches to forecast stocks for high profits. Specifically, this paper analyzes the time-series data of the Indian stock market and builds a statistical model to predict future stock prices efficiently.*

Keywords: ARIMA Model, Financial Forecasting, Indian Stock Market, Time Series Forecasting, Stock Market Prediction