|  |  |  |  |
| --- | --- | --- | --- |
| Title | Stock Market Comparison and Analysis in Preceding and Following Pandemic in Bangladesh using Machine Learning Approaches | | |
| Author(s) Name | Tausif Fardin Sinha, Sumaiya Gawhar Rafia, Mohammed Alvy Rahman, Ridwan Mannan Rahat, Rashidul Hasan Nabil, Abhijit Bhowmik | | |
| Contact Email(s) | tausiffardin4@gmail.com, sumaiyarafia232@gmail.com, mdalvyrahman@gmail.com, ridwanrahat17@gmail.com, rashidul@aiub.edu, abhijit@aiub.edu | | |
| Published Journal Name |  | | |
| Type of Publication |  | | |
| Volume |  | Issue |  |
| Publisher | ACM Digital Library | | |
| Publication Date | August 11, 2022 | | |
| ISSN |  | | |
| DOI |  | | |
| URL | https://dl.acm.org/doi/10.1145/3542954.3542993 | | |
| Other Related Info. |  | | |
|  | | | |

|  |  |
| --- | --- |
| Abstract |  |
| For a long time, stock price forecasting has been a significant research topic. However stock prices depend on various factors that cannot be predicted, and that’s the reason it is almost impossible to predict stock prices accurately. Many researchers have already worked in this area. Recently, the COVID-19 pandemic had a great effect on the stock market. The main purpose of this paper is to predict the stock closing prices for two major stock exchanges in Bangladesh and compare the prediction accuracy based on before and after pandemic data. The implemented models are Autoregressive Integrated Moving Average(ARIMA) and Support Vector Machine(SVM) and Long Short-Term Memory (LSTM). Raw datasets were considered, which were collected from Dhaka Stock Exchange(DSE) and Chittagong Stock Exchange(CSE). Data preprocessing was done on both of the datasets. After analyzing the overall accuracy for each algorithm, it was found that LSTM provided better accuracy than ARIMA and SVM for both the DSE and CSE datasets. | |