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| **Sri Ramakrishna Engineering College, Coimbatore 641 022**  **Department of Electronics and Communication Engineering**  **Evaluation of Project Work** | | | |
| **Title of the Project** | | **Academic Year** | |
| Stock Value Prediction Using Deep Learning | | **2020-2021** | |
| **Project team** | | **Supervisor** | |
| 1. Karthik K (1902102) 2. Nithin Soundar S J (1902132) 3. Rithick Roshan R (1902156) | | Mr. E Esakki Vigneswaran, Assistant Professor (Sr. G)/ECE. | |
| **Abstract** | | | |
| Stock prices are driven by corporate earnings or profit expectations. If a trader thinks that the company's earnings are high or will rise further, they will raise the price of the stock. One way for shareholders to get a return on their investment is to buy low stocks and sell them at high prices. If the company performs poorly and the value of the stock declines, the shareholder will lose some or all of his investment at the time of sale. Therefore, accurate stock price information is important. Prediction of stock prices has been an important area of research for a long time. While supporters of the efficient market hypothesis believe that it is impossible to predict stock prices accurately, there are formal propositions demonstrating that accurate modeling and designing of appropriate variables may lead to models using which stock prices and stock price movement patterns can be very accurately predicted. In Stock Market Prediction, the aim is to predict the future value of the financial stocks of a company. This project has utilized the Long- Short Term Memory cell algorithm. LSTM are mini neural networks designed for larger neural networks. These LSTMs at every feed forward iteration the cell can hold onto information from the previous step, as well as all previous steps. After pre-processing the collected data, it is split into training and testing datasets. LSTM algorithm is applied to the training dataset. The result is then analyzed. By Using this algorithm, an accuracy of 0.968 has been achieved. The recent trend in stock market prediction technologies is the use of deep learning which makes predictions based on the values of current stock market indices by training on their previous values. | | | |
| **Strengths and Limitations of the Project Work** | | | |
| **Strengths**   * Summarizing reduces perusing time * No character limit.   **Limitations**   * Sentences partially redundant to rest of summary. * No file import/export. | | | |
| PEO: I,II,III | Program Outcomes: 1,2,4,6,7,8,9,10 | | PSO: I, III |

**PEO,PO,PSO:**

**PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

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| **PEO 1** | Excel in professional career to provide engineering solution by demonstrating technical competence and by acquiring knowledge in electronics and communication engineering |
| **PEO 2** | Identify, analyze and formulate problems to offer appropriate design solutions that are technically superior, economically feasible, environmentally compatible, professionally ethical and socially acceptable |
| **PEO 3** | Achieve progress in professional and research career through communication skills, team work and knowledge up gradation through higher education |

**PROGRAM OUTCOMES (POs)**

**Engineering Graduates will be able to:**

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| **PO 1** | **Engineering Knowledge** |
| Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems |
| **PO 2** | **Problem Analysis** |
| Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences |
| **PO 3** | **Design/Development of Solutions** |
| Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations |
| **PO 4** | **Conduct Investigations of Complex Problems** |
| Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions |
| **PO 5** | **Modern Tool Usage** |
| Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations |
| **PO 6** | **The Engineer and Society** |
| Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice |
| **PO 7** | **Environment and Sustainability** |
| Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development |
| **PO 8** | **Ethics** |
| Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice |
| **PO 9** | **Individual and Team Work** |
| Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings |
| **PO 10** | **Communication** |
| Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions |
| **PO 11** | **Project Management and Finance** |
| Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments |
| **PO 12** | **Life-Long Learning** |
| Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change |

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

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| **PSO 1** | Specify, design, implement and test digital and analog electronic systems using state of art component and software tools |
| **PSO 2** | Architect and specify the analog and digital communication systems as per the performance requirement specifications |
| **PSO 3** | Understand and specify the components of RF/Wireless communication systems |