**Raosaheb** **Wangde Master Charitable Trust’s**

**Dnyanshree Institute of Engineering & Technology, Sajjan gad Road, Satara.**

**BTech Computer Science and Engineering Project Synopsis**

**Title: Public transport application for tracking and providing offline** **timetables of buses and** **trains in remote areas.**

**Category of Project: -** In Campus.

* **Area/Domain:** Android development.
* **Introduction:**

Today the transport system has been kind of a mess, especially in remote areas, bus arriving timing, depart timing has been a major issue. Also, if you are in a new area which is completely new, and you don’t have clue of the transport system, then you don’t have many choices in the market for doing the same. This application will solve the same problem, help travelers to find the nearest bus, train station also checks time of bus, train, live track it and check the ticket fare and also available to book tickets.

* **Literature Survey: -**
* Tulin Ozturk, Muhammed Talo, Azhra Yildirim and Ulas Baran Baloglu proposed “2020 Computers in Biology and Medicine, April, 2020- Automated Detection of COVID-19 Cases Using Deep Neural Networks with X-ray Images”, in which the feature extraction methods are replaced by end-to-end architecture that can process raw image dataset.
* Sohaib Asif, Yi Wenhui published “2020 medRxiv, Automatic Detection of COVID-19 Using X-ray Images with Deep Convolutional Neural Networks and Machine Learning” the use of deep convolutional neural networks for feature extraction and classification of those features.
* Ayoub Benali Amjoud, Mustapha Amrouch proposed “2020 International Conference on Image and Signal Processing - Convolutional Neural Networks Backbones for Object Detection”, which defines the different networks used for the object classification task.
* **Problem Definition:** To build a public transport application for tracking and provide offline timetables using android studio, Java or React Native.
* **Objectives: -**
  + To build an android application that is located near bus and train station.
  + To build an android application that is available to track your bus, train.
  + To build an android application that can predict arrival and depart timings.
  + To build an android application that is available to book bus and train stations.
* **Specification:**

Software:

* Android studio (v - 2021.3.1)
* Firebase (v - 31.0.2)
* Java (v - 8)
* React Native (v - 0.68)

Hardware:

* 8 GB RAM, with i3 11th generation processor
* **Significance:**

The significance of the application can be easily evaluated by the features we aim to provide. The proposed application is developed to provide.

* Help people to locate nearby bus and train stations.
* Live track buses and trains.
* Offline timetables.
* Check ticket fair and book ticket's.

Hence it helps people to make their travel experience better.

* **Proposed Platform:**

|  |  |  |  |
| --- | --- | --- | --- |
| Sr.no. | Platform Tools | Availability | |
|  |  | In Campus (Laboratory/Workshop) | Out of Campus (Name of Industry) |
| 1. | Android studio | Laboratory | - |
| 2. | Firebase | Laboratory | - |
| 3. | Java, React Native | Laboratory | - |

* **Selection Criteria for Platform /Tools: -**
  + **Android studio:** Android studio is an official-integrated development environment tool for android app development, based on IntelliJ IDEA.
  + **Firebase:** Firebase is a set of hosting services for any type of application.
  + **Java:** Java is a high-level, class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible.
  + **React native:** React Native is an open-source UI software framework created by Meta Platforms, Inc. It is used to develop applications for Android, Android TV, iOS, macOS, tvOS, Web, Windows.
* **Estimate Budget and** **Cost: -**
* **References:**
* 2020 Computers in Biology and Medicine, April, 2020 - Automated Detection of COVID-19 Cases Using Deep Neural Networks with X-ray Images.
* 2020 International Conference on Image and Signal Processing - Convolutional Neural Networks Backbones for Object Detection.
* 2020 medRxiv preprint - Automatic Detection of COVID-19 Using X-ray Images with Deep Convolutional Neural Networks and Machine Learning.
* Arun Sharma, Sheeba Rani, Dinesh Gupta, 2020, International Journal of Biomedical Imaging – Artificial Intelligence based classification of Chest X-ray images into COVID- 19 and other infectious Diseases.
* Khalid El Asnaoui and Youness Chawki, 2020, Journal of Biomolecular Structure and Dynamics – Using X-ray images and deep learning for automated detection of coronavirus disease.

**Name and Signature of Students:-**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.**  **No.** | **Roll No.** | **PRN No.** | **Name of the Student** | **Sign** |
| 1. | 4307 | 1967971242007 | Junghare Prasad Shridhar |  |
| 2. | 4310 | 1967971242010 | Kadam Yash Vitthal |  |
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**DR.V.K.Bhosale Prof.** **Pondkule. P.M** **DR.V.K.Bhosale**

**[****Guide]**  **[Project** **Coordinator]**  **[HOD]**