

**AAVARTAN'19**



## **VIGYAAN PROBLEM STATEMENTS**

**(Department of Computer Science and Engineering)**

### **1. Artificial Intelligence HealthCare Chat Bot System**

Through chat-bots one can communicate with text or voice interface and get reply through artificial intelligence. Design a healthcare chat-bot system which should help hospitals to provide healthcare support online 24 x 7, it answers deep as well as general questions. Use Deep Learning and AI Mind cloud concept to make system intelligence enough to provide correct suggestions or answer.

### **2. Android app for Campus Recruitment System**

Android Campus Management system is a project which relates to HR department, will maintain entire recruitment service and provide services for job vacancies. This project allows companies to post job vacancies with respect to the subject on which they are looking for employs and the job seekers need to log in to their account with given login and password and check job vacancies. Job seekers can check their job application status from their account.

### **3. Detecting Phishing Websites Using Machine Learning**

There are multiple websites who ask user to provide sensitive data such as username, password or credit card details etc. often for malicious reasons. This type of websites is known as phishing website. Once user makes transaction through online when he makes payment through the website, the system may use data mining algorithm to detect whether the website is phishing website or not. Admin can add phishing website URL or fake website URL into system.

#### **4. Currency Recogniser**

Develop an android application that can help visually impaired person to identify currency. This application must have an image recognition facility. When person turn on, it must ask what you want to do. As person says to identify currency notes in front of camera, app must take image of currency and tell the denomination using voice system.

#### **5. Predicting Air Quality index of a specific city using Machine Learning**

The regulation of air pollutant levels is rapidly becoming one of the most important tasks for the governments of developing countries, especially India. Use machine learning to build a web application that can predict the air quality index of any specific city with the controlled error and an android app that can show the air pollution level in a chart format. The machine learning model will train and test with the dataset provided to it by the city's salient parameters measured, collected and normalized. Taking into consideration the specific city's - Temperature, Wind Speed, Relative Humidity, Traffic Index, Air Quality of the previous day.

#### **6. Android Crime Reporter & Missing Person Finder**

Propose an android crime reporter which tracks the investigation status of criminal cases with logs as well as it also track complaints lodged by the user. It should be proposed to help agencies like CBI, CID and other such bureau's to speed up their investigation process and track status of multiple cases at a time. In this system, society itself helps the authority to get the crime details quickly and to proceed with investigation. The system keeps logs of a case which includes case summary, people involved, disputes, past criminal history of those involved, Items recovered on scene and other details. User may post their missing person's details with a photograph.

#### **7. Farming Assistant Web Service**

Design a farming assistant web service which should be a web project to help the farmers working with the motive of greater profitability by direct communication between; farmer-to-supplier and farmer-to-farmer. The site should allow a farmer, retailer and supplier communication. It provides an option of login to farmers and communicates to respective dealers. Farmers are notified whenever dealers publish an advertisement or offer on the website through SMS message. The farmers may also have an option to submit their grievances and complaints to respective dealers or authorities using their farmer login on a separate complaints page and authorities will get access to that page regularly using their login id and passwords.

## **8. Handwriting Analysis for Detection of Personality Traits using Machine Learning**

Graphology is the art of studying and analyzing handwriting, design a scientific method to determine a person's personality by evaluating various features from the handwriting. To make it more efficient and reliable, introduction of machines to perform the feature extraction and mapping to various personality traits can be done. Predict the accurate personality traits of an individual from the features extracted from handwriting using Machine Learning. The features may include baseline, margin, and slant of the words and height of t-bar of a person's handwriting.

## **9. Vehicle theft location intimation by GPS/GSM**

At the present time, the rate of crime is increasing rapidly because it is a kind of evident from the actual fact that thefts became a matter of routine. Particularly these vehicles may incur huge losses on the part of the amount invested on these vehicles. The main intention of this project is to find out the exact location of the stolen vehicle by thefts and inform to the concerned authority through an SMS.

## **10. Digital signature recognition and verification using neural networks**

Biometrics plays a crucial role in establishing an individual's identity. A signature is one of the most widely recognized ways to authorize transactions and authenticate the human identity as compared to other electronic identification methods such as fingerprint and retina scans. Human signatures can be treated as an image and the techniques of neural networks can be applied to them for recognition and verification. Create a database of samples of offline signatures that are captured in an image format and use the database to train the neural network.