DIGITAL POLICE STATION

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ABSTRACT

Now a day there is craze of smartphones. A common man is using smartphone in day to day life. Along with the development, numbers of criminal's activities are also increasing massively. Whenever any criminal activity happens, cops reaches so lately in incident place, because they came to know very late. People can submit their complaint using this app from incident spot. People will have access to verify criminality of person. People also found difficulty to find police station nearby them. This app will help to find the path towards police station. Ultimately this will help to save peoples as well as cop's time. Submission of FIR through internet with supporting content, Criminality verification, Criminal face recognition, Navigation to nearby police station. Records are stored at cloud which can be access by this app runs on smartphone. Face recognition done by server sent by user. Google map for location navigation. A set of tools will be used that will supports cross platform application development. FIR will be registered and stored on cloud and notified to respective police station. People can verify the suspect is criminal or not through face recognition. Notification will be given to respective person when action taken on FIR. App will navigate person to nearby police station through Google map API.

Keyword: - *Face Recognition, Report Submission, Navigation, Cloud Storage*

1. INTRODUCTION

"Digital Police Station" the project idea comes under the "Digital India" campaign. This idea focuses on the common people as well as the police. The application developed under this idea solves the problems face by the police as well as the common people. This application helps to lower the rate of criminal activities as well as immediate assistance to the disasters. The "Digital Police Station" is the cross platform mobile application developed for the use in the apple, windows and android based mobile phones. The application helps the user to access to the criminal data as well as store the information in one click to the server from anywhere with the help of Internet connectivity from cloud[4]. There are various problems face by the common person in his world of criminal mind anything can happen anywhere without their knowledge and they are unable to defend the situation. Through this application people facing the problem to find the nearby police station will get solved the application provide the location of nearby police station[2], through the various map technologies such as Google map used in the application. Various criminal activities are happening day to day and there are many suspects of that activity those suspects can be found or seen by the common people. These people can take a snap on their mobile phones and upload it to the police server through the application. Then the reply is given by the server that those suspects had any criminal record or not, so that it can easy for common people to recognize the criminals surrounding to them. This can be done by the face recognition feature of the application[1]. As many people wants to submit their complaints to the police station as early as possible, this can also be possible through this application. The people submit their complaints and the complaint store on the cloud server[4], after taking the necessary actions on the complaint the reply is send to the user by the police. This application also helps the police by saving the time and by using technology for tedious task such as face recognition and the navigation. This application will serve its usefulness to the user.
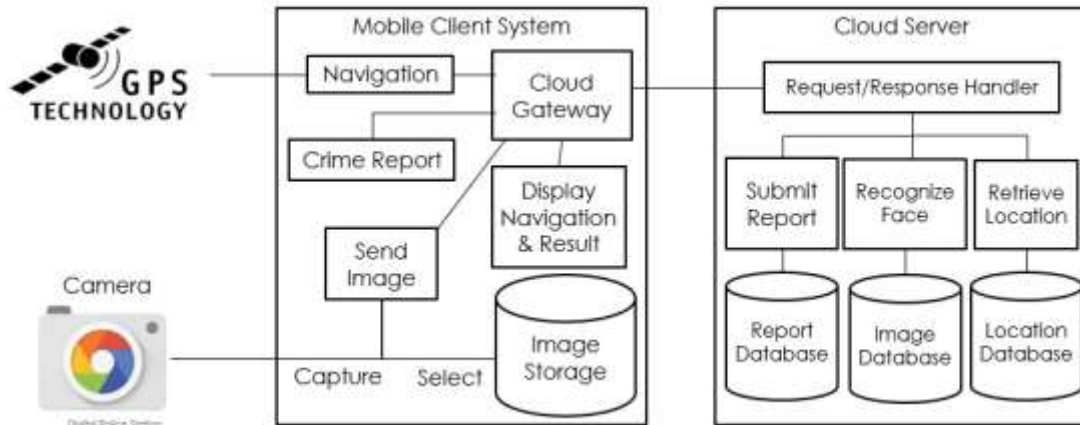
2. SYSTEM ARCHITECHTURE

Figure -1: System Architecture

2.1 Face Recognition

Select image from gallery or capture it through the camera and send to the cloud gateway which stores in the image database. Response is given in the form of the information stored in the database about that person.

2.2 Reporting

Provide the location of police station store in the location database in cloud server when user request it, the repose is given by request response handler.

2.3 Navigation

User report the criminal activity through the interface of application, the report is store in the report database and response is given by the server whenever the action is taken by the police department

3. RELATED WORK

Face recognition (FR) is the problem of verifying or identifying a face from its image. It has received substantial attention over the last few decades due to its value both in understanding how FR process works in humans as well as in addressing many challenging real world applications, including reduplication of identity documents (e.g., passport, driver license), access control, and video surveillance and other Criminal activity. For the face recognition the application uses the Kairos API, which is available online on the Kairos website after some identification. It also supports recognition of multiple faces from image[3]. Following API we used for face recognition and navigation.

3.1 Face Recognition

Kairos provide the API's for the face detection, identification, verification and many more functionalities free of cost. Followings are the functionalities provided by the Kairos API.
Face Detection

- Face Identification
- Face Verification
- Emotion Detection
- Age Detection
- Gender Detection
- Multi face Detection
- Facial Features (eyes, eyebrows, nose, mouth etc.)

3.2 Navigation

Google Maps API which developed by Google was released in the network map on a free API function setThe Google Maps API that the system needs to commonly use is divided into two parts in accordance for its function, one for the map display functions, such as GMap2, GPoint, GIcon, GLatLng. The other part is an extension API functions, such as the wish to develop their own control, annotation and map type, etc., class or function, including GControl, GMapPane GMapType, and GOverlay etc. Here we highlight several commonly used Google Map API key functions of the object.[2]

- GMap object
- GControl control
- GMarker landmark
- GlnfoWindow objects
- Gender Detection
- GPolyline and GPolygon objects

4. RESULTS

Task	Input	Output
Face Recognition	Image with criminal faces	Criminal Details
Face Recognition	Image with common people faces	No threats
Face Recognition	Image with no faces	No faces found in image
Navigation	Own mobile location	Nearby police station location
Reporting	Crime report with optional incident image	Help from police station

4. CONCLUSIONS

In most places like cities and metropolitan cities this application will reduce crimes and maintain judiciary. People will be able to wonder in society with protection and fearlessly. Facial recognition will help in two different ways, one for people safety and another is police's convenience. People will be able to easily navigate to respective police station without tension of path.

5. ACKNOWLEDGEMENT

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