

Missing Person and Criminal Identification using Image Processing

Vaishnavi Watpade, Sakshi Vishwakarma, Priya Jejure
Guru Gobind Singh Polytechnic, Nashik, India

Abstract: *In the world, a countless number of people are missing every day which includes kids, teens, mentally challenged, old-aged people with Alzheimer's, etc. Most of them remain untraced. To this missing case entry is updated in police station. By using web camera technology compare each person with the available database and find these people. This system designed to find the missing people. If the missing person found in the Web Video streaming, then send the location of missing person to police station. After missing person found in the Web Video streaming, send location Email to Police station. So our system can perform the very important role in security and authentication issues. Here the admin performs the all-administrative role in this system. Admin can add the user police, remove the user police and view the user police. The system detects the results and generates output accordingly.*

Keywords: Missing People, Finding, Face Recognition, Web Camera.

I. INTRODUCTION

A missing person can be characterized as the one who can be a child or an adult -- who is lost, voluntarily or involuntarily. There are various categories of missing cases of which only 43% of missing cases' reasons are known, 99% are juvenile runways, 2500 cases are due to family problems and around 500 cases are kidnapped by strangers (which include both teens and adults). Women add about 52% of missing cases and males 48%. "In India, there are no budgets allocated to finding missing people", claimed by an official source. A missing person faces many obstacles, few are subjected to death (murder), rape or abuse. People concerned with the missing person such as parents, friends, relatives and guardians are exposed to stress and worries from not knowing whether the missing person is alive or dead. In our system, the image of the person given by the guardian at the time of missing is stored in the database by the police.

Automatic detection of match for this picture among the already existing images in the database will be done through our application. This helps the police department to spot the missing person in any place in India. When a suspicious person is found, the picture at that instance of time is compared with the images uploaded by the police department at the time of missing through the face recognition model. If a match is found, it will be notified to the police in the form of an email message along with the location of where the person is found. If not found, a new record will be created in the database with the uploaded picture. By this way, it decreases the time taken to search for a person's detail after he is found. Sometimes, the person has been missing for a long period of time. The age gap is reflected in the image as ageing affects the structure of the face, including shape, texture, etc. The appearance of the person can vary due to ageing, filters, pose, lightings etc. All these factors were considered before choosing the face recognition algorithm.

II. SYSTEM ARCHITECTURE

The proposed system makes use of Face Recognition for missing peoples' identification. The architecture of our framework is presented in figure. The Architecture of the proposed Person Identification System. Here, the facial features of any reported missing person who is seen on a web cam will be matched to the database and sent to the police via email. Our algorithm extracts the face encodings of the image and compare with that of the face encodings of the previously existing images in the database. If a match is found, an alert message will be sent to the concerned police officer.

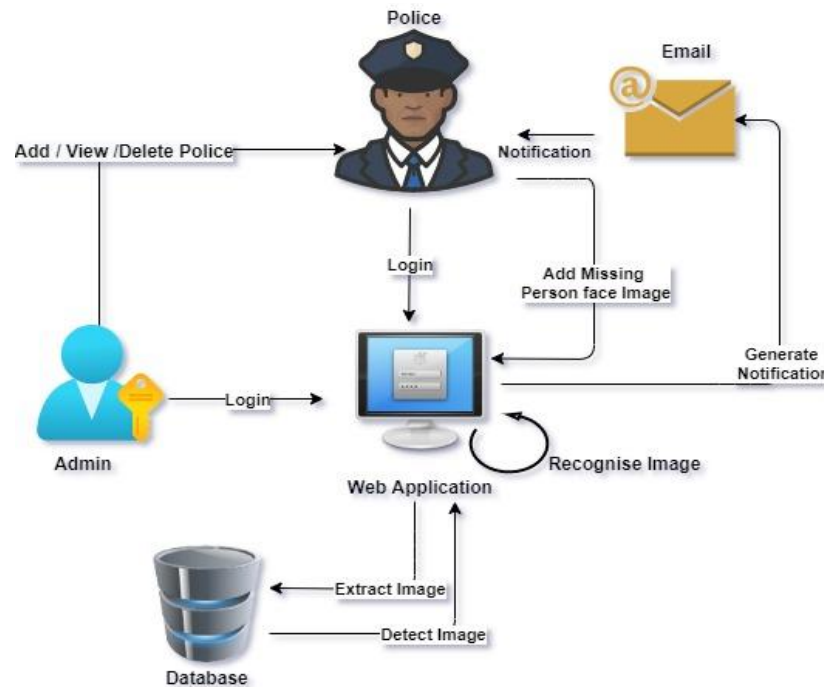


Figure1.1 System Architecture

III. EXISITINGF SYSTEM

- In this software in which we are going to detect the person with the help office Recognition software. In this software we can also find missing person, terrorist etc. This software has its own database to store the information of the missing person. As Soon as person identified by software it will send the alert messing to nearest station. This software work in three different steps.
- Upload Information: Upload the photos of missing or suspicious person and their information to the Application performs its algorithm to extract the feature office and store in the Database.
- Face Recognition In camera or cctv face is detected it match with the database face feature. To face Recognition, we use the line edge map algorithm.in these for face recognition we use Face detection and recognition library that can be easily integrated into the application. It offers the api (application programming interface) to detect and track faces. It is Provided with tracker api which allows tracking and recognizing faces in real time. The SDK provides the coordinates of 66 facial feature points (including eyes, eyebrows, Mouth, and no se and face contours) It uses multiple processor cores to speedup Recognition the library supports direct show-compatible web cameras and ip cameras with a jpeg interfaces.
- Send Alert Message: If system identifies the person who is missing or suspicious it will send to the nearest department to further process.

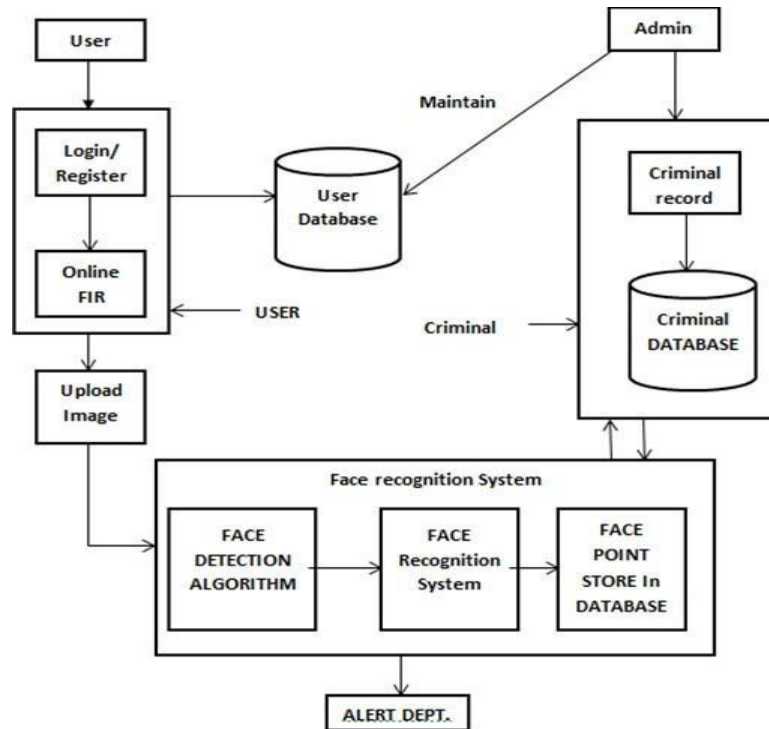


Figure 1.2 Existing System Architecture

IV. FACILITIES REQUIRED FOR PROPOSED WORK

The admin will login and can add, delete and view the police. The user police can login to the system. The image is detected and feature extraction is done, if match is found then, notification and email is generated and sent to police, if not then also notification is generated. When the match is found, the location is also sent along with the email. The system uses python, OpenCV library, haar cascade algorithm and frontal face algorithm, MySQL database. It requires the web camera to detect the face of lost person.

V. OUTCOME OF THIS PROJECT

Automatic detection of match for this picture among the already existing im- ages in the database will be done through our application. This helps the police department to spot the missing person in any place in India. When a suspicious person is found, the picture at that instance of time is compared with the images uploaded by the police department at the time of missing through the face recognition model. If a match is found, it will be notified to the police in the form of an email message along with the location of where the person is found. If not found, a new record will be created in the database with the uploaded picture. By this way, it decreases the time taken to search for a person's detail after he is found.

VI. APPLICATION

- Find the people missing in the natural disaster.
- Reduce physical human efforts.
- Reduce the missing person rate.

VII. ADVANTAGES

- Time Saving.
- Easily find the missing person.
- Reduce the missing person rate.

VIII. CONCLUSION

Missing person identification system has been developed, tested and demonstrated that it also displays missing person. The salient features of this product are less hardware components, less power consumption, and low cost. This system is mainly helpful for identifying kids, senior citizens who are found missing. This has applications for identifying missing children, physically challenged children, senior citizens and handing over to their guardians with help of police.

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