CRIMINAL INVESTIGATION AND SUSPECT DETECTION

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ABSTRACT: Criminal Investigation & suspect Detection that tracks the investigation status of criminal cases with logs and predicts primary suspects. The system is proposed to help agencies like CBI, CID, and other such bureau's to sped up investigation process and track status of multiple cases at a time. Crimes are at rise and becoming difficult for police to identify and catch the criminals. This increasing crime rate can be reduced by giving alert to the person before its occurrence. Our Proposed System will use Face Recognition Algorithms to detect Criminals and will also use face expressions detection to detect expressions of the person.

INTRODUCTION

Crimes are at rise and becoming difficult for police to identify and catch the criminals.This increasing crime rate can be reduced by using face recognition algorithm and bygiving alert message to the person before its occurrence. Our Proposed System will use Face Recognition Algorithms to detect Criminals and will also use facial expressions to detect bad intent.Face Recognition and Face Expression begins with extracting thecoordinates of features such as width of mouth, width of eyes, pupil, and compare theresult with the measurements stored in the database and return the closest record (facialmetrics). If a person is feeling uncomfortable with people surrounded by him/her, canscan their face, and find out whether that person is having any crime record ornot.Ifthepersonishavingcrimerecord,the nthealertmessageisdisplayed.Ifthepersoni snothavinganycrimerecordbutstill,he/shei sfeelinguncomfortablethentheycansharet heimages and other details.Criminal Investigation & suspect Detection tracks the investigation status of criminal cases with logs and predicts primary suspects. The system keeps logs of a case which includes case summary, people involved, disputes, past criminal history of those involved. The system realizes the type of case, allows admin to update the status of investigation, upload more images of crime, items found on scene etc. This

allows authorized officers to check case status and investigate its status online and update any important info as and when needed. The system also consists of a suspect prediction algorithm.It studies past criminal records of those involved and based on this data it provides suggestions of suspected persons in a logical order. The system is designed to aid investigation teams to work collectively on cases, coordinate and speed up the process by suggesting logical suspects based on data provided.
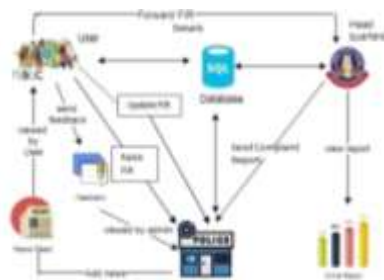
LITERATURE SURVEY

Dr H Venkateshwara Reddy - year 2015

The goal is to investigate to provide a literature review about crime activity recognition using different techniques. The main demerits of video surveillance are facial utterance recognition, and the method consumes more time for detecting the crime.

Dr Arti Jain year - 2014

Criminal identification and prediction system give accuracy of 93.62 and 93.99 % of

solution for crimes by using data mining and AI.

M.I. Pramanik- year 2017

Applications of various data analytics technologies to security and criminal investigation during the past three decades have demonstrated the inception, growth, and maturation of criminal analytics. We first identify five cutting-edge data mining technologies such as link analysis, intelligent agents, text mining, neural networks, and machine learning.

Shruti S Gosavi – year 2017

To use Data Mining techniques that will help to detect and predict crimes using association rule mining, k-means clustering, decision trees & naive bayes and Machine learning techniques such as deep neural network and artificial neural network.

PROPOSEDSYSTEM

In the existing system, we can see the details of information about the police stations in our state, the existing system has more workload for the authorized person, but in the case of Proposed System, the user can register in our site and send the crime report and complaint about a particular city or person.

DISADVANTAGES:

➢ More man power.
➢ Time consuming.

➢ No direct role for the higher officials.

➢ Damage of machines due to lack of attention.

Our Proposed system will be using advanced algorithms and use the one which is better further implementing the system in a project. To make a proper Graphical User Interface based application so that the system can be easily used by anyone. Using allmodules,makingacriminalidentificationsystemintegratedwithhumanfacialexpressionrecognition.Thefacialrecognitionsystemcandetecttheexpressionofapersonincameraview and displays the expression on the screen. In case of emergency, the user can share the images, location, and other details.

ADVANTAGES:

➢ Ensure data accuracies.

➢ Proper control of the higher officials.

➢ Reduce the damages of the machines.

➢ Minimize manual data entry.

➢ Minimum time needed for various processing.

➢ Greater efficiency.

➢ Better service.

➢ User friendliness and interactive.

➢ Minimum time required.

IMPLEMENTATION

Admin:

Thismodulewillberesponsibleforaddingthecriminalsinthedatabase,trainingthesystemand managing the system.

User:

This module will store the information of the user. It will also store the information of volunteer. In case of emergency the user information is retrieved form the module and send to emergency module.

Criminal Detection:

This module will be responsible for detecting whether the person in front of the camera is criminal or not and showing Details.
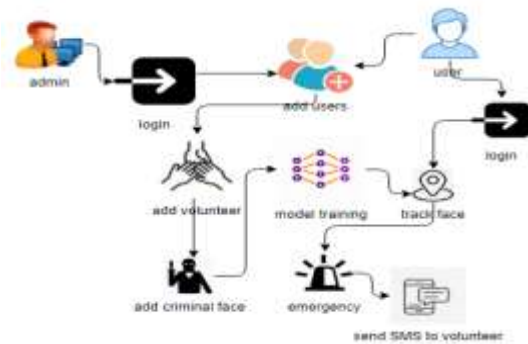
Face Expression Recognition:

This module will recognize the facial expression of the person in camera view and will alert the user if anything seems wrong.

Image Sharing and Alert:

This module will be responsible for sharing Image of suspect and Location of the user incase an

Emergency Button is pressed.

CONCLUSION

In this project is being developed to help the citizens as well as police to solve thecrime or prevent it before its occurrence. Here only the admin can add the criminals intothe system.When a person is in emergency there are two possible chances, one they arehaving time to scan the image of the suspect then they can scan and press the emergency button then the image of suspect along with user, location and user details are sent to volunteers. Second, the user is not having time to scan the image of the suspect then can directly click on the emergency button then the image of user, location, and user details,along with the image of the things which is present in front of the camera at the click on emergency button.

REFERENCES

1.M. S. H. B. Osman, Crime Management System with Suspect Prediction Using Ahp Method, 2018.

2.A. O. Ogunde, G. O. Ogunleye and O. Ore Oluwa, "A decision tree algorithm-based system for predicting crime in the university", *Mach. Learn. Res*, vol. 2, no. 1, pp. 26-34, 2017.

3.F. J. M. Barrow, M. J. Alam and M. N. Mustafa, "Unique Model of Criminal Record Management System in the pective of Somalia", *JOIV: International Journal on Informatics Visualization*, vol. 3, no. 4, pp. 332-336, 2019.

4.D. Kawai and D. Samson, "Development Of Criminals Record Information System", *Department of Mathematical Science Faculty of Science Kaduna State University Kaduna Nigeria*, 2011.

5.C. Rigano, "Using artificial intelligence to address criminal justice needs", *National Institute of Justice Journal*, vol. 280, pp. 1-10, 2019.

6.J. Azeez and D. J. Aravindhar, "Hybrid approach to crime prediction using deep learning", *2015 International Conference on Advances in Computing Communications and Informatics (ICACCI)*, pp. 1701-1710, 2015, August.

7.J. R. Nurse, "Cybercrime and you: How criminals attack and the human factors that they seek to exploit", *arXiv preprint arXiv:1811.06624*, 2018.

8.F. Adesola, S. Misra, N. Omoregbe, R. Damasevicius and R. Maskeliunas, "An IOT-based architecture for crime management in Nigeria", *Data engineering and applications*, pp. 245-254, 2019.