LOCATING MISSING PERSONS USING ARTIFICIAL INTELLIGENCE

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Abstract—Every day more than five hundred missing person complaints are approximated to go unanswered in India. an organization called as find me group FMG that is currently active in the united states led by former field experts is committed to solve the problems that lead to such scenarios. they have introduced and made use of the missing person intelligence synthesis toolkit mist which adopts a driven-data approach to the given problem. using the same approach and slightly building upon the foundation provided by FMG we aim to tackle this problem by taking search locations on the basis of the data on hand ranks and orders the locations based on the likelihood as well as the probability allocated to the search areas based on the prior information and previous performances that are taken individually as well as a group. we compared and contrasted our approach with the current practices adopted by several organizations and entities and found that this method gives us a slight but significant advantage over many of such approaches. it is worth noteworthy that it could actually reduce the search area leading to a reduction of many square kilometres over several cases that were examined in the conducted experiments. missing individual incidents have been on a steady rise in India for the past many years. the major cause of many of these incidents never being solved the lack of timely reporting of such cases and the lack of transparency of facts and information. and because of this sadly many of those cases are never solved. the cases of human trafficking and homicides are other fields that can be tackled by this approach as many of their attributes match.

Keywords –Missing Person Intelligence Synthesis Toolkit, KNN Classifier, FMG

I. INTRODUCTION

In layman terms, the purpose of this project is to help in solving the cases and to find the victims as swiftly as possible. Hence, time is of essence here. We will be using the KNN classifier algorithm here in this regard. We have assessed our options and chosen this algorithm due to its analytical capability. Hence, the task at hand gets easier due to the reductions in cost, capital, labour and time consumed.

The reasons which are noteworthy for the reduction are given below,

- The time to locate the mission person's decreases drastically.
- Reduction in direct costs.
- Reduction in indirect costs.

Through this procedure we try to understand pattern of each information given independently and then

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try to overcome irregularity if any .The result are also very good when the data is limited.

II. LITERATURE SURVEY

This paper the main goal is based on the location af the faces according to the video we also try to find face motion which further helps in face recognition system. Robert edge detector is used to detect the edge of the faces later some arithmetic operations are performed between the nearest frame and initial frame. After that Gaussian filtering technique is used to remove undesired edges and noises. Then first two output frames are taken and logical operation is performed between errorless face outline frame to detect the edges which are similar to the face video. After that we try to draw a rectangle around the face using the four corner points. Which also helps to discover face and make an outline of the face along with each frame. To know whether the position and location of face is changing movement of each point is taken after some time.

III.OBJECTIVES

The main objective of this project is to find the missing people by certain procedure such as using KNN classifier. That help the people to search missing person from any location at any time.

- The primary focus is on recognizing the face from video.
- By using several algorithm and classifier to get face edges using Robert Edge detector.
- Performing logical operation on previous two output.
- To track face the scalar and vector distance is used and consecutives frames are calculated.

IV.PROPOSEDSYSTEM
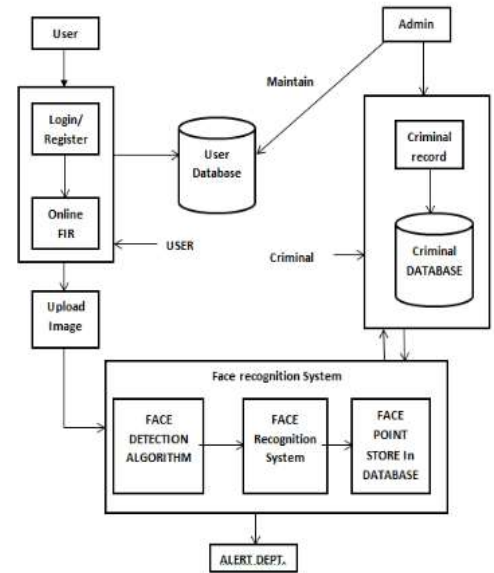
This paper includes a numerous factors such as, dataset and its cases of missing persons found status as alive/deceased, latitude and longitude of that particular location, age of that person and reason associated with missing person as well the potential locations (latitude and longitude) information from the reporters/experts. The details of this dataset is summarized in Table 1. The point to be noted that in some cases, after being aware of reports still do not have the found location. According to this work, being known the found location we have only 29 cases which are used for experiment .To analyse the data the numerous datasets are considered and applied.

Work on this paper start with a primary focus on the video through which location and faces are obtained , and the finding face motion of person and its brief is understood under the face recognition system. Firstly, by using Robert edge detector method the face edges of a person is detected the most important step which is followed by a set of arithmetic operations between an initial frame and the nearest ones. Thereafter, to get more precise of only face edges the Gaussian filtering technique is used to remove the non-desired edges and noise from it. Then on two pervious output frames a logical operation is performed and noiseless face contour frame for detecting edges corresponding to

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face video. At the end, four corner points such are. top-left, top-right, bottom-left, bottom-right is computed to draw rectangle around the face and detect face contour of each frame. scalar and vector distance between four corner points of two consecutive frames are calculated track human face from video . Displacement of corner points means position and location of face changes in the next frame.

V.METHODOLOGY
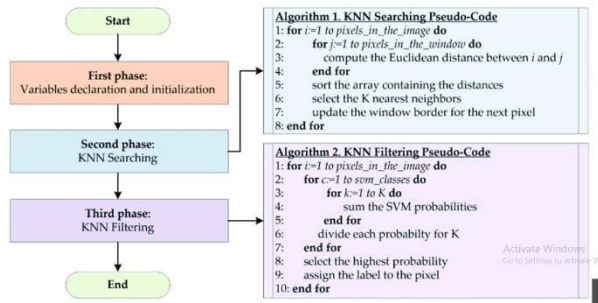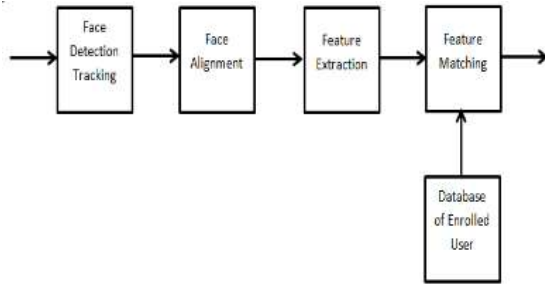
Assessment of an algorithm's predictive capability is most efficiently implemented by testing on the data at hand and not by the rules derived. Cross-validation is a characteristic technique for finding an error rate of the learning scheme on the acquired data.

Whenever a person goes missing, a case is registered with some pictures and some details like name, age, complexion etc. Then the KNN Classifier will be used for cases that have been registered will be used to train the classifier.

VIII.REFERENCES

[1] B. Akinkunmi and P. C. Bassey. A Logic of Spatial Qualification Using Qualitative Reasoning Approach. International Journal of Artificial Intelligence & Applications, 2017.

[2] T. Bylander, D. Allemang, M. C. Tanner, and J. R. Josephson. The Computational Complexity of Abduction. Artificial Intelligence. 2016.

All the photos that have been accumulated will be used to run prediction method on each photo. If any match is found then it will be displayed. All the cases that have been confirmed will be displayed. Each instance in the data is used only once in the form of a test case and the error rate obtained from all the tested cases is projected as the ratio of the total number of errors to the total number of cases.

VI.MODULES IDENTIFIED

1. New Case - Whenever a people goes missing this part will be used. It registers case with photo of the people missing and some detail like name, father's name, etc.
2. Refresh - This button is going to train the KNN Classifier. All the cases that have been registered will be used to train the classifier.
3. Match - This button will download all the photos submitted and will run predict method on each photo. If any match is found then it will be displayed.
4. Confirmed Cases - All the cases that have been confirmed will be displayed here.

VII. RESULT AND DISCUSSION

Here the result works well and the application is also stable which meets the following:
1. Search missing people anytime from anywhere.
2. Less physical infrastructure.
3. Fast and easy to search missing people.

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[3] L. Console, L. Portinale, and D. T. Dupre. Focussing Abductive Diagnosis. AI Communication, 2016

[4] L. Console, M. L. Sapino, and D. T. Dupre. The Role of Abduction in Database View Updating. J. Intel. Inf. Syst., 2017.

[5] S. do Ago Pereira and L. N. de Barros. Planning with abduction: A logical framework to explore extensions to classical planning. In Brazilian Symposium on Artificial Intelligence, pages 62-72., 2018.

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