



IJIRCCCE

e-ISSN: 2320-9801 | p-ISSN: 2320-9798



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

Volume 10, Issue 3, March 2022

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.165

 9940 572 462

 6381 907 438

 ijircce@gmail.com

 www.ijircce.com

Criminal and Missing Children Identification Using Face Recognition

Saniya Samir Manyar , Priti Jadhav ,Tejaswini Sunil Saware, Prof. Bhise A.K.

Dept. of Computer Engineering, Sau. Sundarbai Manik Adsul Polytechnic Chas, Ahmednagar, Maharashtra, 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.

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. LITERATURE SURVEY

Sr. no.	Author and Title	Proposed System	For this paper we referred
1.	AniruddhaDey, "A Contour based Procedure for Face Detection and Tracking from Video " 3rd Int'l Conf. on Recent Advances in Information Technology I RAIT-20161	In this paper primary goal is to recognize location of faces from video. Moreover, finding face motion leads to be a part of face recognition system. Firstly, face edges are detected using Robert edge detector followed by a set of arithmetic operations between an initial frame and the nearest ones. Thereafter, non-desired edges and noise are removed by Gaussian filtering technique. A logical operation is then performed between the previous two output frames and noiseless face contour frame for detecting edges corresponding to face video. Finally, four	Referred following techniques : 1. Face Detection 2. Moving Face Contour Detection 3. Face Tracking

		corner points i.e. topleft, top-right, bottom-left, bottom-right is computed to draw rectangle around the face and detect face contour of each frame. To track human face from video, scalar and vector distance between four corner points of two consecutive frames are calculated. Displacement of corner points means position and location of face changes in the next frame.	
2.	Andreas Ess, Bastian Leibe, Konrad Schindler, Luc Van Gool, "A Mobile Vision System for Robust Multi-Person Tracking " 978-1-4244-2243-2/08/\$25.00 ©2008 IEEE	Propose a way to closely integrate the vision modules for visual odometer, pedestrian detection, depth estimation, and tracking. The integration naturally leads to several cognitive feedback loops between the modules. Among others, we propose a novel feedback connection from the object detector to visual odometry which utilizes the semantic knowledge of detection to stabilize localization. Feedback loops always carry the danger that erroneous feedback from one module is amplified and causes the entire system to become unstable. We therefore incorporate automatic failure detection and recovery, allowing the system to continue when a module becomes unreliable. The approach is experimentally evaluated on several long and difficult video sequences from busy inner-city locations. Our results show that the proposed integration makes it possible to deliver stable tracking performance in scenes of previously infeasible complexity	Object or multi-person tracking-by-detection with additional depth information.
3.	Rolf H. Baxter, Michael J. V. Leach, Sankha S. Mukherjee, and Neil M. Robertson, "An Adaptive Motion Model for Person Tracking with Instantaneous Head-Pose Features" IEEE SIGNAL PROCESSING LETTERS, VOL. 22, NO. 5, MAY 2015	It presents novel behavior based tracking of people in low-resolution using instantaneous priors mediated by head-pose. We extend the Kalman Filter to adaptively combine motion information with an instantaneous prior belief about where the person will go based on where they are currently looking. We apply this new method to pedestrian surveillance, using automatically derived head pose estimates, although the theory is not limited to head-pose priors.	Intentional tracker could significantly outperform the standard KF on both video and synthetic datasets containing sudden changes in behavior.
4.	He Guohui, Wang Wanying, "An algorithm for fatigue driving face detection and location " 2015 8th International Conference on Intelligent Computation Technology and Automation	To detect and locate face region accurately, improve real-time, accuracy, and reliability of face detection in the fatigue driving warning system, according to the theory put forward by Yang, combined with skin color segmentation and edge detection technology, we mixed Gaussian Model and Oval Clustering Model.	Understand following face detection techniques : 1. Skin color segmentation 2. Color Gaussian model 3. Face edge feature extraction
5.	K. V. Arya, Abhinav Adarsh, "An Efficient Face Detection and Recognition Method for Surveillance " 2015 International Conference on Computational Intelligence and Communication Networks	It presented for automatic detection and recognition of human faces for surveillance purpose. The proposed method first detects skin regions in the image using a skin color model using YCbCr and HSV color space. Then apply height to width ratio followed by face region identification. Lastly PCA verification algorithm is used to detect face accurately. Train face images are used to generate feature space (face space). Test images are then projected on sub spaces and distances measured to find out best match from train images. The face space is affine subspace and face images can be represented as weighted	Process of Skin Detection, Segmentation, Face Detection, Texture And Illumination, Recognition

		sum of these sub spaces.	
6.	PrantiDutta, Dr.Nachamai M, Department of Computer Science, Christ University Bengaluru, India “Detection of Faces from Video Files with Different File Formats”	This paper evaluates the performance of detection system on single face from the stored videos that is stored in different file formats. Stored videos contain raw homemade datasets as well as ready-made datasets. This proposed work concludes detection percentage of face detection system in different video formats. The implementation is done in two phases. The raw homemade dataset is tested on .3gp,.avi,.mov,.mp4 and a ready-made dataset is tested on .wmv, .m4v, .asf, .mpg file formats.	Process of face detection from video file, pattern recognition, object recognition, stored video database
7.	Lihe Zhang, Huchuan Lu, Dandan Du, and Luning Liu, “Sparse Hashing Tracking” IEEE TRANSACTIONS ON IMAGE PROCESSING, VOL. 25, NO. 2, FEBRUARY 2016	Propose a novel tracking framework based on a sparse and discriminative hashing method. Different from the previous work, we treat object tracking as an approximate nearest neighbor searching process in a binary space. Using the hash functions, the target templates and the candidates can be projected into the Hamming space, Facilitating the distance calculation and tracking efficiency. First, we integrate both the inter-class and intra-class information to train multiple hash functions for better classification, while most classifiers in previous tracking methods usually neglect the interclass correlation, which may cause the inaccuracy	Learning Discriminative Hashing Functions Optimization Using ADM Tracking Framework With Learned Hashing Functions

III. PROPOSED SYSTEM

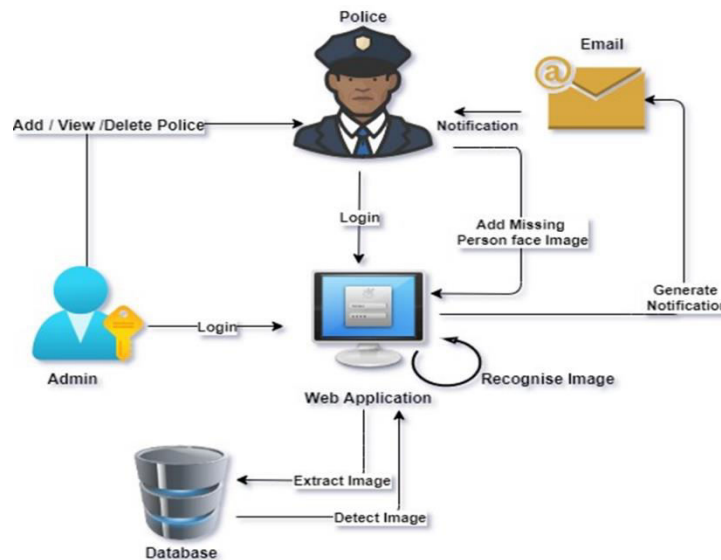


Fig 1: Proposed System

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.

IV. CONCLUSION

Saving time and human efforts - The system goal is Saving time and human efforts, every bus stops, temple, mall, railway stations have the much more people crowd, if we think to find the someone in the crowd it's difficult observe to the human eye, but as we know the all above place have the CCTV coverage, this will help us to find the wanted person by using the technology which is faster and reliable as compare humans. This will directly help to save time and human effort.

REFERENCES

- 1). AniruddhaDey, "A Contour based Procedure for Face Detection and Tracking from Video" 3rd Int'I Conf. on Recent Advances in Information Technology I RAIT-20161.
- 2). Andreas Ess, Bastian Leibe, Konrad Schindler, Luc Van Gool, "A Mobile Vision System for Robust Multi-Person Tracking" 978-1-4244-2243- 2/08/\$25.00 ©2008 IEEE.
- 3). Rolf H. Baxter, Michael J. V. Leach, Sankha S. Mukherjee, and Neil M. Robertson, "An Adaptive Motion Model for Person Tracking with Instantaneous Head-Pose Features " IEEE SIGNAL PROCESSING LETTERS, VOL. 22, NO. 5, MAY 2015.
- 4). He Guohui, Wang Wanying, "An algorithm for fatigue driving face detection and location" 2015 8th International Conference on Intelligent Computation Technology and Automation.
- 5). K. V. Arya, Abhinav Adarsh, "An Efficient Face Detection and Recognition Method for Surveillance" 2015 International Conference on Computational Intelligence and Communication Networks.
- 6). Pranti Dutta, Dr. Nachamai M, Department of Computer Science, Christ University Bengaluru, India "Detection of Faces from Video Files with Different File Formats".
- 7). Lihe Zhang, Huchuan Lu, Dandan Du, and Luning Liu, "Sparse Hashing Tracking" IEEE TRANSACTIONS ON IMAGE PROCESSING, VOL. 25, NO. 2, FEBRUARY 2016.
- 8). Dennis Mitzel, Esther Horbert, Andreas Ess, and Bastian Leibe, " Multi-person Tracking with Sparse Detection and Continuous segmentation ".
- 9). Francesco Comaschi, Sander Stuijk, Twan Basten, Henk Corporaal, "ROBUST ONLINE FACE TRACKING-BY-DETECTION".
- 10). Xiaoming Liu and Tsuhan Chen, "Video-Based Face Recognition Using Adaptive Hidden Markov Models" Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA, 15213, U.S.A.



INNO  **SPACE**
SJIF Scientific Journal Impact Factor
Impact Factor: 8.165

doi[®]
cross **ref**

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

 **9940 572 462**  **6381 907 438**  **ijircce@gmail.com**



www.ijircce.com

Scan to save the contact details