WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Missing Person Identification

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ABSTRACT:

Every day, huge numbers of people around the globe go missing. These missing individuals include children, teenagers, persons with mental disabilities, elderly people with Alzheimer's, etc. Most of them are still unidentified. The police station's record on this missing person has been updated. These persons can be located by employing web camera technology to compare each individual with the database that is available.This technique is intended to locate the missing individuals. Send the location of the missing person to the police station if the missing individual is discovered in a Web video broadcast. Send a location email to the police station if a missing individual is discovered in a web video broadcast. As a result, our technology can play a crucial part in security and authentication challenges. The administrator of this system performs all administrative duties here. Administrators have the ability to view, add, and remove user police. The system recognizes the outcomes and produces output in accordance with them.

KEYWORDS: Missing people, finding, face recognition, web camera.

INTRODUCTION:

A missing person is defined as a child or adult who has disappeared, either voluntarily or unintentionally. There are many different types of missing cases, but only 43% of them have recognized causes. Of those, 99% are kidnappings of young people, 2500 involve family issues, and 500 involve strangers (which includeboth teens and adults). Around 52% of missing persons cases include women, vs 48% men. An official source stated, "There are no budgets set aside in India to find missing persons. Few people who go missing endure rape, abuse, or death (murder), despite the tremendous challenges they encounter. Parents, friends, family, and guardians who are worried about a missing person experience tension and worry since they don'tknow whether the missing person is alive or dead. In our system, the police store the photograph of the person provided by the guardian at the time of disappearance in the database. Our application will automatically find matches for this photo from the already-existing images in the database. This makes it easier for the authorities to find the missing person wherever in India. The face recognition model is used to compare the image taken at the time of the discovery with the ones the police department had uploadedwhen the person went missing. If a match is discovered, the police will be contacted via email along with the location of the person's discovery. If not, a new record containing the uploaded image will be generated in the database. This reduces the amount of time needed to look up a person's information after they are located. Sometimes the missing person has been gone for a very long time. The photograph shows the age difference since ageing alters the form, texture, and other aspects of the facial structure. Because of things like ageing, filters, poses, lighting, etc., the person's appearance can change. While selecting the facial recognition algorithm, all of these factors were taken into account.

ALGORITHM:

1.Haar Feature Selection

Objects are classified on very simple features as a feature to encode ad-hoc domain knowledge and operate much faster than pixel system. The feature is similar to haar filters, hence the name ‘Haar’. An example of these features is a 2-rectangle feature, defined as the difference of the sum of pixels of area inside the rectangle, which can be any position and scale within the original image. 3-rectangle and 4-rectangle features are also used here.

2.Integral Image Representation

The Value of any point in an Integral Image, is the sum of all the pixels above and left of that point. An Integral Image can be calculated efficiently in one pass over the image.

3. Adaboost Training For a window of 24x24 pixels, there can be about 162,336 possible features that would be very expensive to evaluate. Hence AdaBoost algorithm is used to train the classifier with only the best features

4. Cascade Classifier Architecture A cascade classifier refers to the concatenation of several classifiers arranged in successive order. It makes large numbers of small decisions as to whether its the object or not. The structure of the cascade classifier is of a degenerate decision tree.

5. Modified Algorithm

There are two main steps:

Identify human Face and Mouth in each frame of input video

Identify Person is using Mask or not

PROPOSED SYSTEM:

The basic objective of this work is to locate faces in videos. A facial recognition system may also include finding face movements. The Robert edge detector is used to first identify face edges, which is followed by a series of arithmetic operations between the starting frame and the nearby frames. The Gaussian filtering technique is then used to remove noise and undesirable edges. The edges corresponding to the face video are then detected by performing a logical operation between the previous two output frames and the noiseless face contour frame. In order to create a rectangle around the face and identify the facial contour of each frame, four corner points—top left, top right, bottom left, and bottom right—are computed. Scalar and vector distances between the four corner points of two successive frames are calculated in order to track the human face from video. The position and positioning of the face will change in the following frame if the corner points are moved.

EXPERIMENTAL RESULTS:

Due to a wide range of commercial and law enforcement applications during the past few years, face detection and tracking from video has gained the most attention. It is also the most difficult assignment in video, because variations in lighting, noise, human facial locations, and pose can change from one frame to the next. In this research, a novel method for face detection and tracking from video databases is provided. The main objective of this work is to locate faces in videos. Finding face motion also contributes to the face reorganization system. Robert edge detector is used to first identify face edges, and then a series of arithmetic operations are performed between the starting frame and the nearby frames. After that, the Gaussian filtering technique removes unwanted edges and noise. The edges corresponding to the face video are then detected by performing a logical operation between the previous two output frames and the noiseless face contour frame. The face is then enclosed in a rectangle by four corner points, topleft, top- right, bottom-left, and bottom-right, which are computed to identify the facial contour in each frame. Scalar and vector distances between the four corner points of two successive frames are calculated in order to track the human face from video. The position and positioning of the face will change in the following frame ifthe corner points are moved. The suggested method has been evaluated on the Honda/UCSD video library, and it has been determined through experimental results that it can effectively detect and track a human face from video.

CONCLUSION:

A method for identifying missing people has been created, put to the test, and shown to display missing people as well. Less hardware components, decreased power consumption, and inexpensive price are this product's key benefits. This approach is most useful for finding missing children and elderly people. Thiscan be used to locate missing children, youngsters with physical disabilities, elderly people, and give them over to their guardians with the assistance of the police.

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