A Review On Face, Emotion And Gender Recognition

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Abstract : It is used for accurating track time and attendance without human error.In computer vision, recognising faces is always an extremely challenging process due to lighting, stance, and facial expression.It can acquire performance inside the identification of a different patterns It has become a integral part of day to day life In this project the main focus is on the IT students. Human verification and identification can be done online. It is a computer application that is capable of detecting verifying and identifying faces of human and there is no deterministic algorithm to find a faces of a human .Face recognition locates the target objects in real-time video images captured by a camera. It is, in essence, a system programme that can recognise a person from a still photo or video frame.One of the top computer vision technologies at the moment is facial recognition.

Keywords: Deep learning, Support vector Machine ,Classification,Face Detection,face recognition,Information Theory ,Template Matching

Introduction :

Face recognition is a implementation is the best technology of a vision computer and enhancing the performance of a system and classifications It plays a vital role in application which can be used in Real world the system can be used in security system which can identity a human or a person in an expression the system can be used in a security which can detect or identify .The expressions of a facial changes to a person's response in intentions and also a social communications and a Internal Emotional stress It also allows machine or a computer to detect or to identify or understand the feelings of human in turn which enhance the effect for performing various tasks

We are becoming more dependent on virtual interactions in the Covid. Face detection is being used in a various science of the personality in which human can identify the faces in a frame or a scenery . The main objective of a system is to approach or can be justified and can be used in a real life and this systems can be focuses on a frontal face Detection or identification and we can be able to recognize it .

Recognition one of the important step in facial based authentication .It is one of the fundamental step and complex step.Face recognition has very interesting history.Human face has very unique features .It has very precious biometrics features.

I. LITERATURE SURVEY

We have literature survey by reading various newspaper and research paper below we have given the information we taken from the research paper :

The C.Darwan work has attracted the people and since the day he started the research face recognition .The Program made by Darwin was first time someone try to study of Facial expression and it

revolution in field of science and after many research has been done .and For facial emotion recognition has been done

In one of the paper they have review the framework .Using facial recognition method using facial expression and a situation by Hakura j;Domon ,R has provided the literature survey on many methods use in facial recognition method .Techniques are classified on basic on success rate .The PCA provides very excellent rate.

The review in these paper we studied objective of face recognition approach of detection and implement which refers to face detection and recognition by and able detect the facial expression and also if there is small portion of face we can detect it after multiple years. It is used how to find series of the same face in a set of training images in a databases .

By studying the reviews we get from the Harjeet singh has associated various researchers of facial system and various point of view in his intro .Main task provided by facial recognition are verification and identification ,the first approach ,the second approach which is a combination of both feature and holistic approach .
It focuses more on the improving the production or showing system which can be derived in an appropriate which may be used in real life uses .This tool is ethically quick software tool

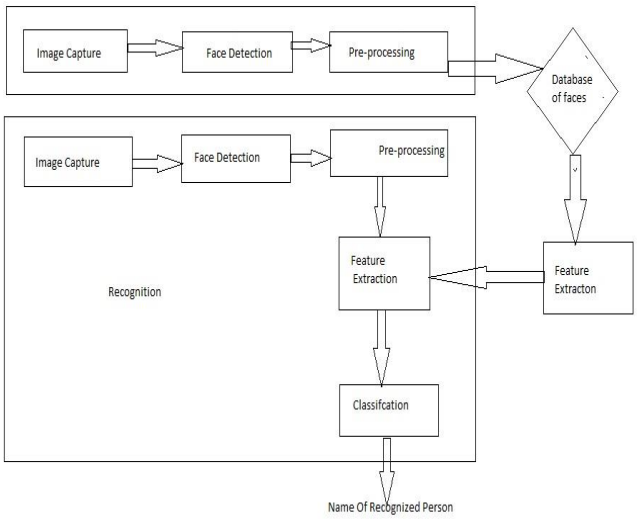
II. PROPOSED METHODOLOGY

The following is a basic notion of how it would be implemented.Techniques based on machine learning. Viola and Jones built a framework out of all these techniques that has a high detection rate and is also quick.The Viola-Jones algorithm for detection is quick and reliable. Due to its usage of Integral Image and the AdaBoost learning algorithm, the Viola-Jones face detection algorithm was selected as the classier option.

We have seen that our algorithm performs better in various lighting scenarios. They have observed the ease with which their work has been done before. They personally liked the user interface and the customization of the web app.

Adding the image to the database :

1. Get the image.
2. Get the dace detector object.
3. Apply the face detector object to the image to extract the features of detected face.



4. In database, add the image.

Comparising the input image with database of images:

1. Get the image.
2. Get the face detector object.
3. Apply the face detector object to image and extract the features.
4. Compare the image with the database.

III SYSTEM FRAMEWORK

There are many framework for this Project:
1)Open CV:It is ML libray and Open source compiler .It includes various face detection algorithm .It can use many programming
languages
2)Tensorflow:It is popular ML framework that can be face detection and gender recognition .It classify facial expression using DeepFace.
3)Dlib:It is C++ algorithm that used in detection of facial expression . It has API that use in many other programming languages.

IV REFRENCES

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V CONCLUSION

A Face Detection and Recognition system gives the fastability feature to the process of checking student attendance in comparison to other biometric authentication methods.It is used in the handling of public or private vehicles.It has right circumstances.It will be able to match their accuracy..It can be generated by using image processing.There are huge varieties of software where it is based on API.