Facial Expression Recognition

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Abstract : In this paper, we propose a system to recognize different emotional states such as joy, surprise, neutral, anger, sadness based on facial expression. Emotions are classified into two categories- positive and negative emotion. Face detection, extraction, Classification, and recognition are different types of emotion recognition. In the existing system, there is no much advancement to get exact emotion of a person. For this large-scale image, hybrid extraction feature and ANN classification of frame-based expression recognition try to detect facial expression and emotion detection for positive and non-positive images also design robust.

IndexTerms – **Facial expression, emotion recognition, classification**

I. INTRODUCTION

In today's world, Facial expression is one of the important research made in Image processing. Emotion recognition is done using facial expression and is used to identify verbal and non-verbal communication. In day to day life, there is very much emotional communication. Change in facial expression tells about emotions. Such type of emotions may tell about the state of emotion. The computer system is used to recognize facial expression, where we can analyze facial features from Image or from a video sequence. Some people may also recognize the facial expression of a person.

II. LITERATURE REVIEW

The existing system works on Adaboost framework which is used to train a strong classifier for identifying images and judges if the current window contains face or not. The system is based on the AAM technology which computes the shape error and texture error. The existing system uses an elastic graph matching algorithm. As the number of image increases, the correct classification also increases. The system identified the image according to the sex that is male and female. The system tested all the samples and matched with existing images. This Leave-one-out procedure is repeated for every and every person. So, it takes longer to detect facial expressions. These systems are less precise and difficult to extend with more emotions. That's why we have to develop this type of system which reduces our time and execute in a rapid manner. There is a need to take special care of the system. In the literature, most authors are focused on face detection and testing. We developed a system which is effective and used for security purpose.

With the help of our proposed system, we can identify the facial expressions of persons and we are able to detect the moods of a person. Our system architecture is given below:
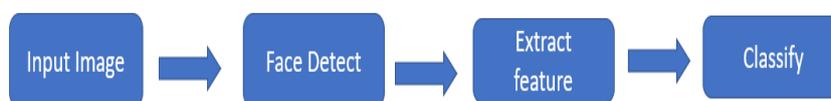
III. CONCLUSION

In this paper, we have proposed a system which is beneficial for detecting the current mood of a person. This system is faster and efficient to recognize facial expression which conveys the emotional state of an individual. The system is reliable and has increasing application areas. The system works on Python which presents a facial expression recognition. In the real world, this system is essential for person identification which is used for authentication.

IV. FUTURE SCOPE

Following are the future scope of our proposed system
1. We have proposed a system with real-time recognition.
2. We will propose a system with more precision and accuracy.
3. Now we are proposing this system for only basic six expressions but in the future, we will extend the system to predict more expressions.

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