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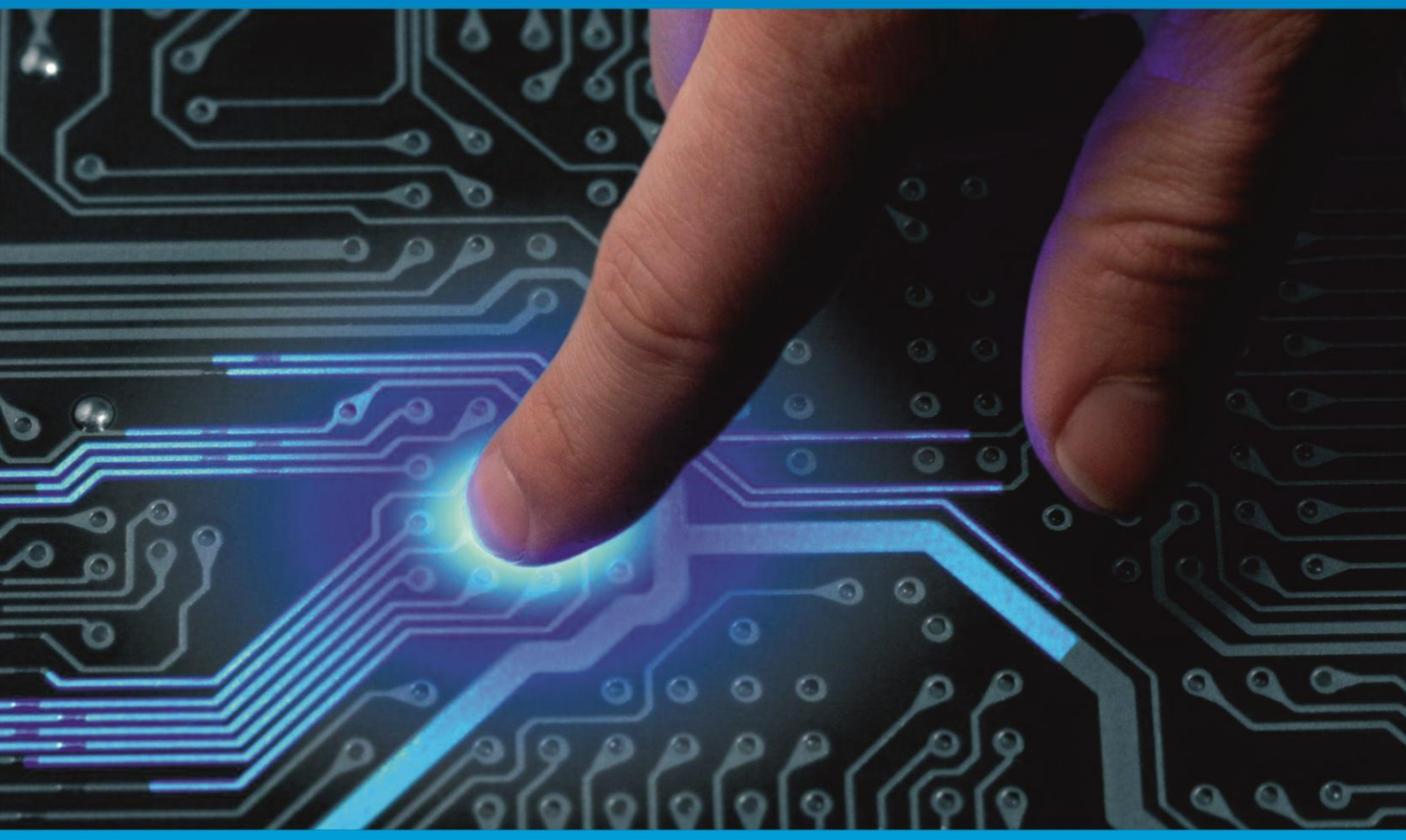

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Human Face Detection and Emotion Analysis

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ABSTRACT: In today's scenario, the major topic discussed all over is Depression. Based on this research, identifying facial expressions and emotions by face detection. So as studied in different perspective some technologies are developed and still developing so contribution towards that a new technique with new innovation should done is main aim. Discussing on the types of emotions, facial expressions stage of mental perspective of human can be identified. Every scenario on every stage is different with different algorithms are Discussing stimulus types are also mentioned. Depression is higher issue becoming day by day. Some of the conditions of neural mechanism are also discussed by some. Response time given by them is quite slow and accuracy is also low. Many more concepts need to study and discussed and problems would be solved for future betterment.
metric.

KEYWORDS: Facial reorganization, emotion detection, social phobia, assessment, autism, Human machine interface.

I. INTRODUCTION

In today's scenario of day by day increase in growth of depression many of the population most among 12-18age group also among 22-26people face many problems of depression. to beat on this, discussed paper could be an excellent help in order that it'll state the mind state of today's youth also specify their emotion and which state they're suffering through this.
Biometric techniques play a much bigger and larger role in nowadays research and development, because more and more applications find their place in people's life: Finger prints to login on your OS, to urge in your workout center or to start out your car engine aren't rare anymore. On higher (security) levels scans of the attention are used. Overlooking the very fact that nobody agrees with the presence of the cameras it's a difficult problem to detect and recognize faces on given camera images. There are tons of approaches to the present problem, which have all advantages and drawbacks .
In schools and college's also at meditation center this Face detection technique and emotion analyzer are widely wont to identify the emotions of small children's and find their presence of mind in class and what phase the scholars are going and are they facing any problem over field.
The aim of this research paper is to urge a thought of some (simple) methods, how faces are often detected in images and the way they will be identified or matched with a given face database. To kill the scenario of increased depression face detection and emotion analysis are going to be of great help.

II. RELATED WORK

Monika Dubey & Prof. Lokesh Singh explained facial expression was determined using localization of points called action units in their paper "automatic emotion recognition using facial emotion." this paper introduce application of facial expression. Here nonverbal communication played important role. Here there was human computer interaction (HCI). Faizan Ahma, Aaima Najam, Zeeshan Ahmed in their paper "Image-based Face Detection and Recognition: "State of the Art" explained Image or video was a popular topic in biometric research-based identification has uniqueness and acceptance. If faces are recognized according to eyes then I can use feature of Instagram.

Calvo, M. G., & Nummenmaa, L. proposed paper "Detection of emotional faces: Salient physical features guide effective visual search." Explained that emotions and face had been easily identified by human's expression whenever he has happy faces, we can show high superiority and whenever they are sad face less superiority. For Normal individual it won't be accepted instead we had provided signal for identification of emotion widely used in companies for identifying emotion of self-employee it is greatly useful.

"Human Emotional State Recognition Using Facial Detection" by Kornreich, C. explained that identified the face emotion of individual though there is no need of eye to eye contact but emotional state was identified. Techniques about MATLAB are discussed Face dentification is important and emotional are quite difficult to recognize, it is quite higher.

K. S Sahla & T. Senthil Kumar stated in paper "Classroom teaching assessments based on students' emotions" that teachers had identified or assessed students based on their emotion in their lecture it was mainly used for small children. Here they had a good evolution for children. Based on this face recognition student's emotion had been recognized in classroom it is good help for teacher. More can be used as machine identification. Here we are trying to catch human interaction.

Smith, F. W., & Rossit, S. in their paper "Identifying and detecting facial expressions of emotion in peripheral vision" proposed had discussed the facial expressions and their signals through central vision. Here the task was discussed about constraints, shape perception of expression in peripheral vison. Although spatial frequency has discussed and face stimulus. In peripheral vision (happiness and surprise) are both detected and (angry, sad) are poorly recognized. Here on basis of peripheral vision detection and recognition rely separate on some mechanism.

III. METHODOLOGY

In this research we have selected different images where various expressions are depicted and they are classified on the basis of emotions and expressions extracted from them. The following images were used for study

Image 1

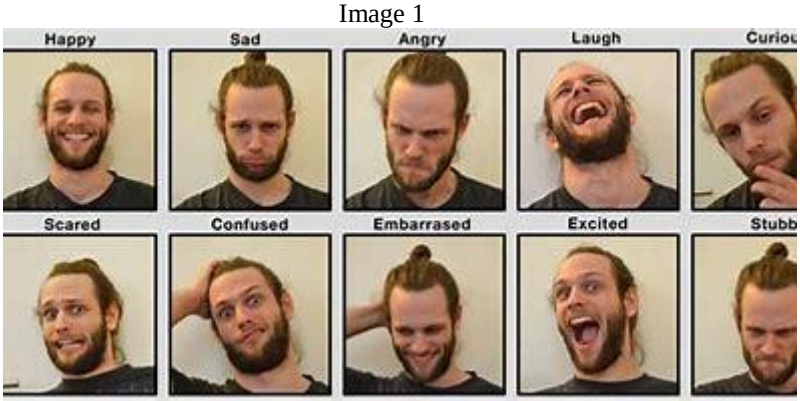

Image 2

As we can see from the above images specified, we explore that image 1 is not that much of more clearance to the expressions of human face emotions. Every face expression has a different classifier for emotion but not specified properly in image 1. Every emotion has some or the other confusion but not specification of proper emotion extraction some are interrelated to each other happy or disgusted faces also there is a confusion between sad, depressed, surprised faces. There is no clearance of emotion in image processed in image 1. Whereas if we see image 2 there is a proper distinguish between facial emotions shown in image 2. Happy, sad, angry faces can be properly recognized. Whereas laugh, curious, scared and confused faces also can be recognized very efficiently. Embarrasses, excited and suborned can be easily seen as a proper image identification so we can say that every image processed over emotion identification has a different perspective of emotion identification. If images have clear emotions then it is easy to identify but if people as shown in image1 have less expressions then it gets too difficult to do so. It also depends on people and their faces If whenever the face is shown in the crying symbol detection or eyes to be shown as depressed one or eyebrows to be at downwards level with eyelids closed that sign we can assume to be sad face then on the controversy face shown with eyes fully open lids to be the upper side of the eyes(if teeth are shown) eyebrows at equal level then it is happy face. Most of these are the conditions that we are facing while getting an emotion detection by emotion recognition. Some of the faces of the old age people also of small age group 5-15 years have no effect of emotion detection by face reorganization as the eyes cannot say the proper detailed of emotion and expression. There is no effect of identifying an expression of aged individual rather than normal individual by proper face emotion. the face is shown with a high obesity people their eyelids usually seems to be fallen down due to fat cheeks same happens with a normal individual and small child of schools due to their obesity and slim nature camera doesn't capture the normal detection then on the controversy sometimes the camera detections also fails due to different nature of the face of various perspective of individuals rather than showing happy or sad faces the camera doesn't capture proper emotion

and popup a fails message. If the system is highly updated with other features like body shape, voice reorganization, hand gestures etc. then there might be chances that it may give appropriate result for each and every individual.

IV. PROPOSED WORK

As discussed above in the paper we propose the following algorithm which will help detecting emotions using very simple logic to get emotion easily detected and feature and facial expressions to be extracted and emotion get detected with basic simple logic

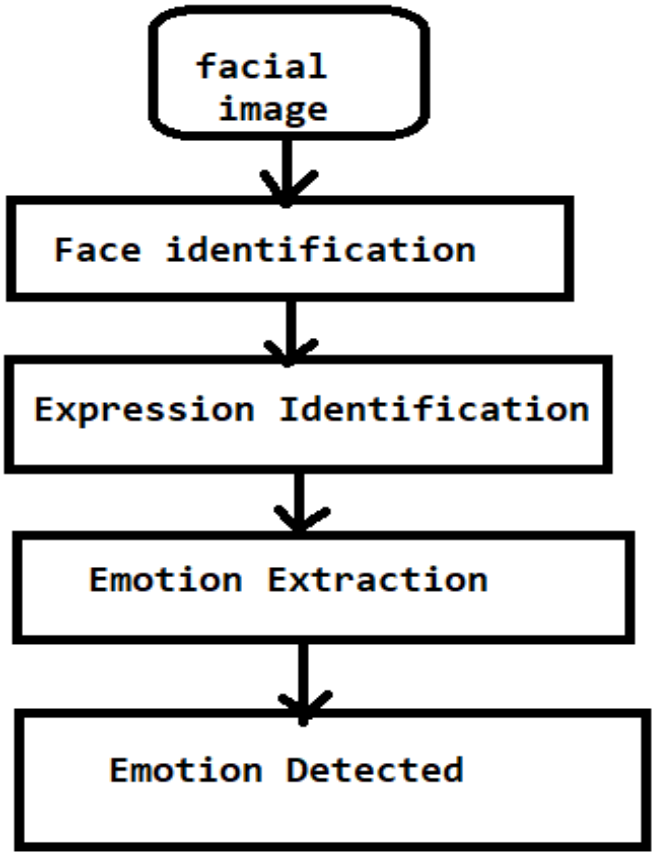

Image 3

We propose that for detecting emotion and extracting expressions from human facial expressions via frontal facial image we observed following steps to be covered while detecting an emotion of human face. The algorithm composed of three stages: first face identification, expression identification and emotion extraction stage. In face identification we proposed image which we have studied previously. In face identification a human face is identified for extraction of emotion and emotion gets detected. The features also explained about how the expressions are identified of human frontal image at certain stages and how they are extracted and classified properly based on their facial expressions. The extraction method proposed that it consist of three feature vision eye region, mouth region and auxiliary region. When there is an age problem facial emotion are identified and the components are extracted. It is not easy to recognize skin colour in the given image since skin colour differs from person to person and there may be personality illumination condition.

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V. CONCLUSION

The As discussed by overall study of face detection using face reorganization, we have studied in the paper there are some of the problems that to be discussed at high perspective for betterment of next generation as well and upcoming technological era. If we develop such a technology where all the aspects are detected of humans then it will be a great invention in this field. Human facial detection will be of great help in education field for identifying emotions of school going as well as college going depressed children also it will be a great help in private as well as an in governmental firm for identifying emotions of employees and their personal issues faced during their daily activities. So this project will be a great help to the society and to overcome the mentally disturbed scenario which is seen in the society at high level.

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16. dataset retrieved from: https://www.kaggle.com/cjroth/chronist
17. dataset retrieved from: https://www.kaggle.com/ashishbansal23/emotion-recognition
18. image 1 retrieved from: facial recognition using emotion - Bing images
19. image 2 retrieved from: facial recognition using emotion - Bing images

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