

# **EMOTION DETECTION FROM DIGITAL IMAGE**

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## Abstract

Emotion detection from digital image is presented in this research. The research is composed of four main stages, Face detection, eye detection, lip detection and emotion detection. First it takes an image, then by skin color segmentation it detects human skin color, then it detect human face. Then it separates the eyes and lip from the face. Then it draws bazier curve for eyes and lips. Then it compares the curve which that is stored in the data base. Then the emotion detection stage, the algorithm is adopted to recognize emotion from extracted features. It is shown by experiment results that the proposed method can detect emotion well. Although the technology for emotion recognition is important one which demanded in various fields, it still remains as the unsolved problem. Detecting emotion of human can be achieved by using facial image, voice, body shape, and etc.

Among them, the facial image is most frequently source to detect emotion.

While different ethnic groups have different levels of melanin and pigmentation, the range of colors that human facial skin takes on is clearly a subspace of the total color space. With the assumption of a typical photographic scenario, it would be clearly wise to take advantage of face color correlations to limit our face search to areas of an input image that have at least the correct color components. In pursuing this goal, we looked at three color spaces that have been reported to be useful in the literature, RGB and HSI spaces, as well as YCrCb.

Segmenting an image is the process by which a computer attempts to separate objects within an image from the background as well as from other objects. The segmentation rules are the rules that will determine the formation of regions. The segmentation rules are based on analyzing the color and edge properties of a region. And accessibility problem also can be solved with this kind of the system; system can access the system anywhere, anytime he wants with maximum security. Interfaces are maximum simplifies therefore the user can interact with the system effectively.