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**ABSTRACT**

The face detection and face recognition system is one of the system that computer can use for recognizing face. It has gain an increasing interest over recent decades. It is because of its many applications in a variety of fields such as security system, videoconferencing and identity verification. But for machines it is difficult to make distinguish between the faces of different kinds. Through this project we had tried to deliver effective and efficient “Face Detection and Recognition System” that will simplify the task of managing the information of any institute by detecting and recognizing the faces.

We used holistic matching method in which complete face region is considered as input data and LBPH method for recognition purpose. Instead of using Eigen face method, by using LBPH method for face recognition, it will probably work better in different environment and light conditions; however, it will depend on training and testing data sets. We used LBPH methods because it provides better accuracy in compared to Fisher face method. To perform recognition, firstly dataset is created which gives number of face images of a person, and then there is need of training set to recognize his or her face image. By comparing current face image with face image in database recognition of respective person is carried out. Otherwise, the face is unknown.

Thus, the objective of this project work is to detect and recognize the face in an image using LBPH. For this we used python as a coding platform.

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**LIST OF ABBREVIATIONS**

SVM Support Vector Machines

FDRS Face Detection and Recognition System

LBPH Local Binary Pattern Histogram

DNN Deep Neural Network