

Abstract

After booking a Cab, at the end of the ride one can make the transactions with either cash, card, UPI, E-wallet etc. Sometimes these methods are not hassle free as they cause inconvenience to the customer. Therefore, a new system has been proposed for transactions, where face scan method will be used. The system in the cab will calculate the fare based on the distance and then it will authenticate the riders face and transact via connected central database. Face recognition begins with extracting the coordinates of features such as width of mouth; width of eyes, pupil, and compare the result with the measurements stored in the database and return the closest record (facial metrics). The main purpose of this research is to investigate different types of face recognition algorithms like Eigen face and Fisherface and Local Binary Patterns Histograms Face Recognizer. The open CV provides these recognition algorithms. This is done by comparing the receiver operating characteristics curve to implement in the given Transaction using Facial Recognition. In addition, it is noted that Local Binary Patterns Histograms Face Recognizer delivers better results than Fisherface algorithms; Eigen face delivers between 50 to 60% accuracy between faces and Local Binary Pattern Histogram delivers 70 to 75 % accuracy. If the user's input image matched with the trained dataset image then the User Profile and Transaction details gets loaded, and the subsequent trip details gets stored in the User Profile database. The database is connected to frame web server.