

**SMART CAR SECURITY SYSTEM USING FACE DETECTION  
SYSTEM AND GPS MODULE****E.Madhu Sudhakar<sup>1</sup>, R.Ramesh Babu<sup>2</sup>, K.Kishore Kumar<sup>3</sup>**

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**ABSTRACT:**

There is a lot of advancement takes place in the system with respect to the security as the major concern respectively. Here in the present method an algorithm is designed based on the well effective phenomena of the skin color based information in a well effective manner followed by the improvement in the present method respectively. Here moving to the strategy of the facial recognition color aspect oriented features plays a major role in the aspect of the color space of the HSV phenomena is a major concern respectively (hue, saturation and value respectively). Here by the help of the above phenomena there is an increase in the complexity takes place in the system with respect to the extracted features in a well oriented scenario where by the help of the color features extraction there is somewhat reduction in the complexity in the system based aspect takes place followed by the extension of the segmentation based algorithm is a major concern respectively. Here the extension of the segmentation if the feature extraction in the form of the operation related to the morphological analysis nothing but the extraction of the data with respect to the pertinent features. Simply it is called as the feature extraction technique. Here in the present technique an algorithm is designed with a well effective framework of the analysis related to the ADABOOST based phenomena in which oriented with the classifiers is a major concern respectively. Here there is a key aspect of the present technique is to search for the classifier of the weak fashion in which integrated them with the strong one in

a well oriented aspect respectively. Simulations have been conducted on the present method related to the recognition of the faces in a well accurate manner by which there is a well efficient analysis and implemented on the large number of the datasets where there is an improvement in the performance followed by the outcome in a well oriented fashion respectively.

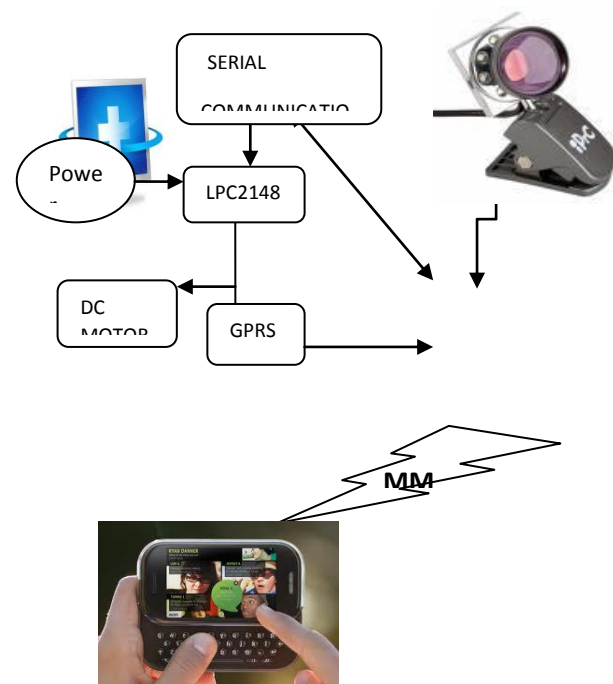
**Keywords:** *GPS, GSM, ARM, Recognition of the faces, Color of the skin, Eigen values, Eigen vectors, Analysis of the principle component respectively.*

## 1. INTRODUCTION

Facial recognition is one of the advanced techniques in related to the security algorithms [2]. Many of the algorithms are failed in the accurate detection of the face region in a well oriented fashion respectively [1]. Here many of the factors are responsible for the failure of the algorithm mainly due to the intensity; contrast followed by the variation in the brightness is a major concern respectively [9]. Here there is a huge research takes place on the recognition of the faces with respect to the extraction of the features for the well accurate recognition of the faces and the evaluation of the performance takes place on the basis of the recognition of the faces depending on the similarity is a major concern aspect respectively [3][4]. Here the recognition of the face is a challenging task by which there is related to the analysis of the pertinent features that is in the form of the operations included in the

Morphology plays a major role respectively.

### BLOCK DIAGRAM



**Fig 1: Shows the block diagram of the present method respectively**

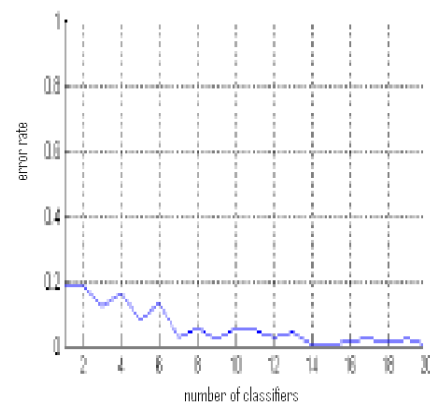
## 2. METHODOLOGY

In this paper a technique is designed with a well efficient strategy and effective design oriented framework in a well respective fashion oriented phenomena [10]. Here there is a huge challenge for the present implemented method where it is supposed accurately analyze the problem related to the previous methods in a well effective manner followed by the and also the control based strategy for the degraded performance of the lot of the previous methods in a well efficient manner respectively [7][8]. Here the architecture of the implementation based design oriented analysis is shown in the below figure in terms of the block diagram and explains in a well elaborative fashion respectively [5][6]. Here we finally conclude that the present method completely overcome the problems and improves the entire system outcome in a well analysis as in an accurate fashion respectively.

## 3. EXPECTED RESULTS

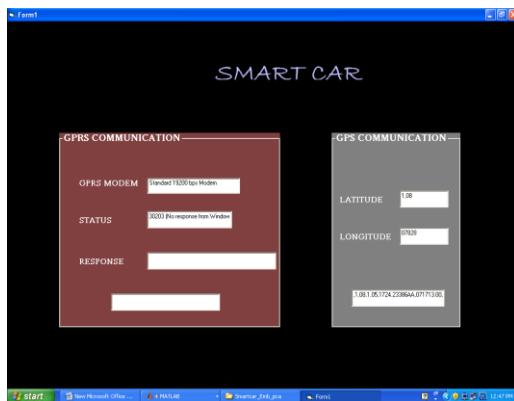
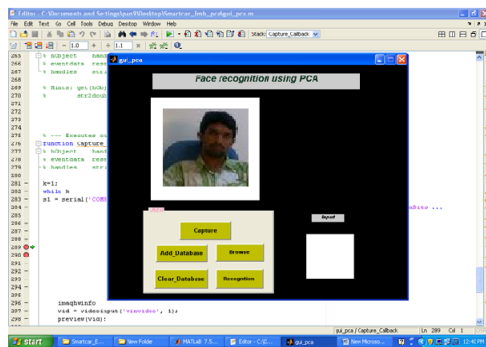
A number of experiments have been conducted on the present technique and also the lot of analysis has been done on the different amount of the data sets in a well oriented fashion respectively. A comparative analysis is made between the present method to that of the several

previous existing techniques and it is shown in the below graphical representation in an elaborative fashion respectively. There is a huge challenge for the present method in terms of the entire system outcome followed by the performance respectively. Here the present designed method completely overcomes the drawbacks of the previous methods in a well efficient manner respectively. Here we finally conclude that the present method is effective and efficient in terms of the improving performance and also the analysis oriented in a quite efficient fashion respectively.



**Fig 2: Shows the graphical representation of the present method respectively**

**Output Screen Shots:**



**4. CONCLUSION**

According to this project when the person is purchased a new car then the company as to provide some security things as we mentioned as images of the car owner. This images data base we are going to store in the mat lab for face recognition purpose. Whenever a person is entered inside the car to drive he started the engine then automatically web camera will turn on and it captures the image of the person who is sitting in driver seat. After capturing the image it will check with the data base of the owner image by using mat lab PCA algorithm. PCA algorithm is based on Eigen values and

Eigen vectors nothing but pixel to pixels values in matrix format with the image comparison process. In this result the image is getting as a authorized person then normal function will goes nothing but he can drives the normally without any interrupt. When it is getting as a unauthorized person then GPRS will be active and MMS of the particular person image will be send to the owner. When the owner known person and he want to allow to drive the car then simply leave no need of sending any command. When the owner don't know about the person or stranger and he don't want to permission to drive the car then he has to trace the latitude & longitude values so that they can find the position of the car. GSM will send the position of the car like longitude and latitudes values to know where the car has been stopped. In this way we have demonstrate to give the security to the car. This project can facilitate to scale back the quality and improve security, conjointly less expensive and 'smarter' than ancient ones.

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