

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014**



**A PROJECT REPORT
on
User authentication using PCA face recognition Algorithm**
(Approved by KSCST,IISC Bangalore-560012)

*Submitted in partial fulfillment for the award of the degree
of*

**Bachelor of Engineering
in
Computer Science & Engineering**

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Abstract

Security breach in cars is a major concern these days. Although various measures are being taken in the past concerning this issue still the problem remains unsolved. With the design & development of an embedded system, which is being used to prevent /control the theft of a vehicle we attempt to provide better security to the vehicles. In this project the developed instrument is an embedded system based on GSM technology. The instrument is installed in the vehicle. An interfacing GSM modem is also connected to the microcontroller to send the message to the owner's mobile.

The main objective of this instrument is to protect the vehicle from any unauthorized access, through face detection system which is used to detect the face and compare it with stored face. The face detection obtains images by a web camera which can be easily placed somewhere in the car. Face detection compares the obtained image with the stored image if the image doesn't match, then the information is sent to owner through gsm. The entire designed unit is on a single board.