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GSM Based Vehicle Theft Detection Using Face Recognition

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Abstract- In recent years, GPS and GSM modem detection, as well as car tracking systems, have become more popular. Face recognition based on a vehicle theft detection system would be ideal. It provides the most complete solution to problems. Face recognition technology is used in the Python Module to identify and recognize faces in real time. Face recognition technology has the ability to assist in the resolution of a wide variety of issues. A vehicle is a device or system that is used to lock and detect other cars. They may be able to determine the presence or absence of an automated owner by utilizing a Smartphone application that recognizes and compares faces within their data. If the vehicle is in good working order. Alternatively, someone tampered with the car in an attempt to disable or damage the mechanism that delivers the message and places the phone call. This device protects vehicles by allowing consumers to view theft details and download them to a USB drive. The data includes position, pose, illumination, background quality, and gender.

Keywords- Face recognition, Open CV, Vehicle Locking & Detecting, GSM.

I. INTRODUCTION

With so many wireless and satellite c technologies available, pinpointing specific locations is straightforward.The Vehicle Tracking System reflects the international people's present way of life. The tr was combined withthe use of self-driving cars and software to produce unique automobiles.

It gathers a big image of the vehicle'sprecise location, as well as the vehicle's track and detection system, which is often utilized with GSM.

It's utilized to find the car. Vehicle tracking and detection systems are being developed for use in transportation andactivities on the ground. Its goal is to provide important information, such as the owner's estimated arrival time,in a compact and easy-to-read format. When surrounded by two or more points, the technique can also be usedfor communication. Wheelers are a vehicle tracking device. A vehicle tracking system with a dark blue operatingsystem is employed for management.

II. OBJECTIVE

To keep the vehicle safe from theft and lock the engine. The main goal of this device is to secure the car fromunauthorized entry and to notify the authorized person or owner of the vehicle's status via GSM communicationtechnology.

III. LITERATURE SURVEY

Syed fasiuddin, AmenaTamkeen," Real Time Application of Vehicle Anti-Theft Detection and Protection withShock Using Facial Recognition and IoT Notification" [1] Vehicle technology system enhancement is gaining studypopularity, as is a vehicle theft security system avoid vehicle theft in parking lots and sometimes while driving inunsecured areas.

When an illegal individual tries to start the ignition and is warned by the IOT application, thesuggested solution provides security and enhanced theft

control by using facial recognition and shock treatment.The system uses a Raspberry Pi microprocessor, a pie cam, and a WIFI controller put in the vehicle. Theimplemented system is relatively simple, with improved security for vehicle anti-theft protection and a lowercost technique when compared to others.

Sayanee Nanda, Harshada Joshi," An IOT Based Smart System for Accident Prevention and Detection" [2]Accidents are becoming more common these days. Every hour, around 17 accidents occur. Bike accidents accountfor a sizable proportion of all accidents, owing to the fact that two-wheelers lack many of the safety features foundon four-wheelers. It can be caused by not wearing a helmet, feeling drowsy while driving, drinking alcohol, twovehicles coming into closer proximity without both drivers' notice, breaking traffic signals, driving without a validor no driving license, careless driving, unintended triggering of the accelerator pedal, and so on.

The major goalof this work is to present may effectively help in preventing accident, and if such conditions exist, how it detectsand alerts the appropriate authorities and people issue can be handled swiftly. Accidents are detected usingvibration sensors and accelerometers for detection, we employ GPS and a GSM module, which locates the locationof the accident and sends a text person's loved ones and surrounding hospitals. Sending a text message to localhospitals will not suffice prevents further accidents; so, this approach also meets this need.

Tahesin Attar, PrajaktaChavan," An Attempt to Develop an IOT based Vehicle Security System" [3] The goal ofthis research is to assess the efficacy of GSM-based technology in transmitting SMS to clients through a physicallink. To monitor and defend the car, Anti-Theft Safety Technology employs a hybrid system created for GSM. gasoline theft, the system sends a car owner and activates the built-in alert via the buzzer. The document wasrecognized our country's alarming rate of fuel theft, and through this vehicle, regardless of where it is parked,but only if the GSM network is roofed.

The following are the project's goals:

- Use an infrared sensor to monitor petrol theft and fuel levels.
- Determine the gasoline requirements for long-distance travel.
- Using the GSM module, collect SMS sensing information from the vehicle owner reporttheft.

Astrid Gruber, Birgit Wessel, Michele Martone, and Achim Roth," Vehicle Theft Track System king, Detecting and Locking Using Open CV" [4] GPS and GSM modem technologies have become increasingly popular in recent years.Face recognition vehicle theft detection system would be ideal. It provides the conclusive solution to a problem.Face recognition technology detects and identifies with a Python program. Face recognition software is capableof resolving and detecting device by utilizing a mobile application to recognize and compare faces within theirdata determines whether or not they have an automated owner.

If the vehicle is in good mechanical condition. Aperson attempting to disable or damage the automatic transmission of the message and call to the recipient hasinjured the vehicle in some way. This device protects the car by allowing consumers to review the circumstancesof the theft and recording the data on a USB stick. The data on the USB stick includes information about the car'sposition, pose, lighting, back-ground quality, and gender.

Manoj Saini, Shagufta Khan B," GSM Based Fuel Theft Detection" [5] The purpose of this study is to evaluate theefficacy of GSM-based technology for SMS transmission to customers via an external physical connection system.The Anti-Theft Safety Technology monitors and defends the vehicle through the use of a hybrid system optimized for GSM. In the event of gasoline theft, the system notifies the automobile owner and also activates the system'salarm via the buzzer.

Gasoline security is critical to the community, and the paper was recognized as a result ofthe alarming rate of fuel theft in our country, and through this vehicle, regardless of where it is parked, but onlyif the GSM network is roofed.

The following are the objectives of this work:

- Monitor petrol theft and fuel level using an infrared sensor.
- Calculate fuel requirements for long-distance travel.

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- Collect SMS sensing information from the car owner via the GSM module in order to report theft.

IV. PROPOSED SYSTEM

Hardware has been created and is ready to use. To complete the tasks, data can be exchanged between mobilestations.

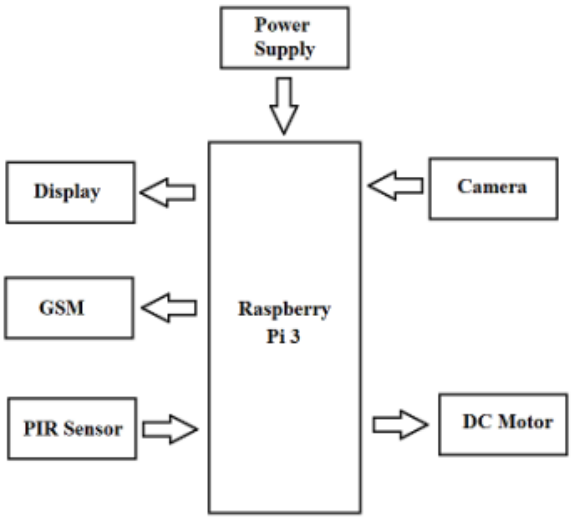

Fig 1. Block diagram.

V. CONCLUSIONS

In this study, there is an advance and the cost is also lower, thus it is safer for car users. A theft detection systemcan be installed on the vehicle in a secret location. This system is difficult to discover. If an unknown person triesto break the system, the buzzer goes ON, sending an SMS to the user.

VI. FUTURE SCOPE

A nice example and a pie camera with a facial recognition system that uses the Python programming language inreal time with specific photographs.

In addition, we will utilize facial recognition to monitor stolen automobiles,and in the future, we will provide a shock and alarm system that will be given to the authorized person to makeit safer and secure from illegal theft. In the future, this could be the greatest option for any type of stolenautomotive part.

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