WORKING OF FINGER PRINT BASED VECHICLE CONTROL SYSTEM

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ABSTRACT--- **Implemented this project is biometric access system. Using this project the access to a vehicle can be controlled using finger prints. Embedded finger print module is used the finger prints of the owner and his other authorized users will be fed into the embedded module. This finger print module is further connected to a microcontroller that controls the connection to the ignition of the vehicle. Hence the vehicle can only be started using a proper finger print match. Else the vehicle doesn't start. Alcohol sensor used to check weather driver drunk or not while driving. Biometric systems have a strong security system in many different applications and it will be implemented in automobile industry. Biometric system is a technological system that uses information about a person to identify the particular person. Unique biological datas are trait in order to work effectively. Individuals identification of particular result is running through algorithms.Arduino generate the signals.**

KEYWORDS: Fingerprint Scanner, Microcontroller, GSM, GPS, Alcohol Sensor.

I.INTRODUCTION

I. INTRODUCTION

Internet of Things (IoT) represents a new paradigm where the barriers between the real and cyber realms are increasingly annihilated by turning out every day physical device to smart object able to provide smart services. These services are bringing added chances but at the same time growing new tasks particularly in security and privacy. In fact, the verification and permission problems have been intensively examined over existing rules for use cases outside constrained environments.Fingerprint recognition technology allows access to only those whose fingerprints that are pre stored in the memory [5]. There is aessential to improve the security level of the bikes and carsas there is Increasing number of theft cases. Commonly used key locks available in the bikes are easy to thieves and thus it can easily be unlocked with the help of master key. Thus the unique lock is necessary i.e. it must be only unlocked by unique and specific key. Biometrics locks only have this type of feature i.e. the lock which can only be locked and unlocked by the human body features. They may include: face recognition, voice recognition, fingerprint recognition, eye (iris) recognition and so on. In these type of unique biometric recognition techniques the fingerprint recognition is the most commonly used because fingerprint of each person on the earth is unique and can provide good consistency. Also the

execution of the fingerprint recognition system is easy and cheap than the other ones. Thus fingerprint recognition locking system can offerimprovedconsistency than the other traditional locks and also is cheaper and easy than the other biometric locking system. It also includes a GSM and GPS technology for the communication purposes [2].

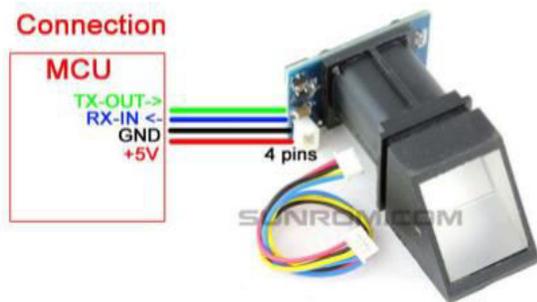## III.COMPONENTS REQUIRED

A. FINGERPRINT SENSOR

Figure 2: fingerprint sensor

Protected with biometrics will make adding fingerprint detection and verification simple and this is possible in one optical fingerprint sensor. These elements are normally used in safes - there's a high powered DSP chip that does the image rendering, calculation, feature finding and searching.
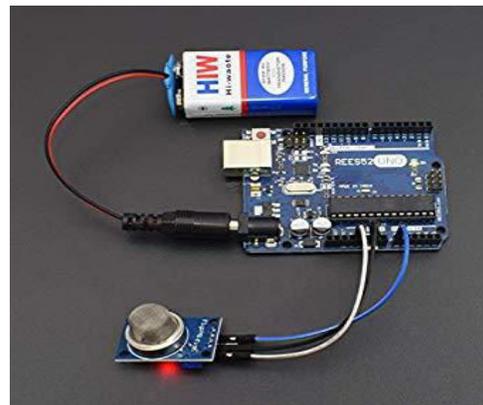
B. ALCOHOL SENSOR

Here we check the alcohol level of driver. If the driver drunk the alcohol, vehicle doesn't start. Buzzer will produce the sound.

C. SENSAOR INTERFACING

Interface the alcohol sensor and fingerprint sensor interface with micro controller here with. DC motor is act as vehicle for this project. Buzzer used to indicate the sound while malfunction.

IV. BLOCK DIAGRAM
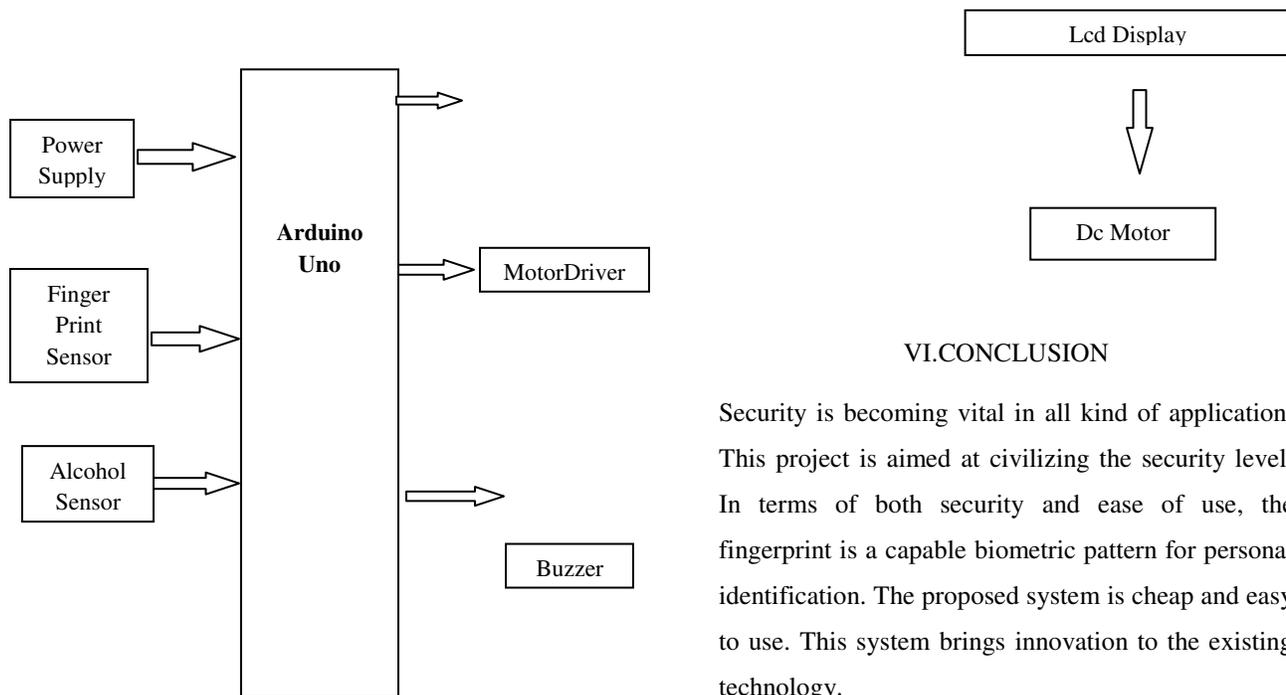
V. WORKING PRINCIPLE

Signals are produced by the arduino to appropriate module circuit in the design of fingerprintbased vehicle system,. The whole system is designed to be created in aelastic casing to improve heat clearing and working effectiveness of the system. The arduino reads the state of the input buttons which could be either 1 or 0. The input button get the signal from signal arduino.The Push-button is replaced in vehicle ignition and produce a furtherconsistent and protected way of starting the ignition with fingerprint pattern only. In this method we use two models to start a vehicle. If driver drunk, vehicle doesn't start. Same way driver finger print doesn't match with vehicle finger print means vehicle doesn't start. So our vehicle protected by themselves and we will avoid accident by drunken and drive.

VI.CONCLUSION

Security is becoming vital in all kind of application. This project is aimed at civilizing the security level. In terms of both security and ease of use, the fingerprint is a capable biometric pattern for personal identification. The proposed system is cheap and easy to use. This system brings innovation to the existing technology.

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