License Retrieval System with Cloud Using Biometric Detection Algorithm

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Abstract - Proposed system is replaced with a current system for checking licensed drivers. It will take less time to identify registered and licensed users with the help of fingerprint. The system will contain Arduino kit, fingerprint scanner and Bluetooth module. To store data, we use the MySQL database which is stored on cloud. The prototype of our system is displaying the information of licensed user. It will take a fingerprint of the user and it will display age, name, license id, gender on the screen.

Keywords: Fingerprint module, Arduino, Bluetooth module, cloud.

1. INTRODUCTION

To implement smart fingerprint-based license retrieval system with cloud: This project objective is implementing the system which identify the driver's identity based on fingerprint so the user doesn't have any conflict if he doesn't have hard copy of the license. All the process made digitally so if any driver lost the documents, he can easily get the personal document as well as vehicle documents implement the system which identify the drivers identity based on fingerprint so the user don't have any conflict if he don't have hard copy of the license. Because of this system the document verification process of the driver is easy and conflict free. All the process made digitally so if any driver lost the documents, he can easily get the personal document as well as vehicle documents. Fingerprint method is most secure as compare to the other like swipe card. The unique id will be generated to the fingerprint and it will be store in the database. When the driver will enter the fingerprint then it will be compared with the already stored fingerprint. When the fingerprint matches then it will display the data like age, name, license id, gender.

There will be 3 components will be use Fingerprint module, Arduino, Bluetooth module. Arduino Uno is a microcontroller board which is used to connect the Bluetooth module and fingerprint module. A fingerprint scanner is used to get the fingerprint of the person. There will be assign the id to the captured fingerprint and store into the database in the registration part. And the data will be sent through the Bluetooth module to the mobile screen. HC-05 Bluetooth Module is connected with the Arduino. The Bluetooth module will send the captured fingerprint to the mobile screen.

2. EXISTING SYSTEM

In Existing system validating and checking of driver's license as well as the its documents checking done manually by the police. And it will take more time to check. Checking the driver's license copy or document it's make a very difficult process to police because of traffic or an any other reason. Sometimes driver missing their license copy anywhere then it makes very difficult for a driver, so much conflict is occurring in between them, otherwise driver lie police and also time is waste.

3. PROPOSED SYSTEM

This proposed system will be replaced with the existing system. it is easy to check the license user. It will take less time and also process will be less tedious to identify the licensed user using biometric. This system will be replaced with the FRSC for checking licensed user. There will be a fingerprint module which will capture the fingerprint and store it to the database. And identify the licensed users. Register fingerprint numerical id will be generated ad it will store in database on cloud. Police will take the fingerprint of user it will matches to the already stored fingerprint and then the matching will be done with the already stored fingerprint and recently scanned fingerprint and if matching will be found then it will display the user information on the screen.

4. PROPOSED SYSTEM

Arduino

Arduino is a microcontroller board which is used to connect the Bluetooth module and fingerprint module. Arduino will take the input from the fingerprint module and it will send the fingerprint to the mobile via Bluetooth device. We need a simple USB cable to connect to the computer and the AC to DC adapter or battery to get started with it. Arduino is a microcontroller board which is used to connect the Bluetooth module and fingerprint module.

Fingerprint Module

A fingerprint scanner is used to get the fingerprint of the person. There will be assign the id to the captured fingerprint and store into the database in the registration part. And the data will be sent through the Bluetooth module to the mobile screen
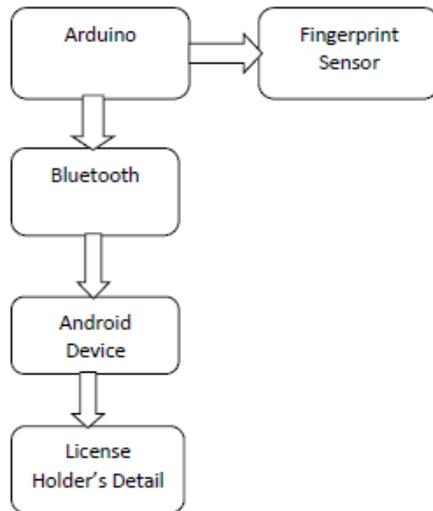

Fig. 1. Diagrammatic representation

Bluetooth Module

HC-05 Bluetooth Module is connected with the Arduino. The Bluetooth module will send the captured fingerprint to the mobile screen.

A) Capture module: In this module the individual fingerprint will be scan and that scan fingerprint it will assign the id to that fingerprint and store in database. And that id will be used to identify.

B) Storage module: It will store the captured fingerprint into the database.The numeric value will be gengerated for each fingerprint and that numerical value will be store on the database.

C) Matching module: it will compare the scan fingerprint with the stored fingerprint and it matches level of similarity.Already stored fingerprint Will compared with scaned fingerprint and if match will found then it will display information of license holder on screen.

D) Decision module: This module determines that level of similarity is sufficient to identify the licensed user.If level of similarity are maximum then it will decide that stored fingerprint will equal to the scaned fingerprint.

5. SCOPE OF PROJECT

Using the fingerprint-based license system we will easily find the non-licensed drivers and prevent from the doing illegally driving. When the enrolment processes the all the data with his/her fingerprint will be stored on server. So, at anywhere they can get their license with the information. It will also help licensed person to avoid waste of time.

6. FUTURE ENHANCEMENT

In system only driver's information will come when we enter the fingerprint In future we can enter the number from number plate and we can find that who's car and details about that car owner. We can do this project through the RFID also.

7. CONCLUSION

The system is used to identify registered drivers and the information about the licensed user. Compare with the existing system, identification method will be easy and less time consuming. There will be a fingerprint module which will capture the fingerprint and store it to the database. And identify the licensed users. Register fingerprint numerical id will be generated ad it will store in database on cloud. Police will take the fingerprint of user it will matches to the already stored fingerprint and then the matching will be done with the already stored fingerprint and recently scanned fingerprint and if matching will be found then it will display the user information on the screen.

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