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Automatic License Checking Using Fingerprint

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Abstract: ***Driving license verification framework is a serious issue in many countries. therefore, the biometric based driving license verification framework is employed because it's exceedingly simple and beneficial to screen. Biometrics suggests approximation regarding mortal traits. Biometrics proof (or reasonable countersign) is utilized in programming as a type of ID and access control. It's also used to perceive individuals in groups that are in perception. Biometric identifiers are also visible, quantifiable characteristics used to marker and characterize individuals. Biometric identifiers are continually requested as physical instead of social characteristics. Physiological characteristics are related to the state of the body. Biometrics studies typically consist of discrete cutlet print, face, iris, voice, mark, and hand computation identification and authentication. Out of these open biometric features special cutlet print emerges perhaps the best point providing superior mismatch rate as well as durable. Other characters are face, iris, voice, hand, and hand figure identification varying with times but point remaining the same as age persists. Thus point becomes reliable. Through imposing this biometric rooted system i.e. point technology to identify driving license bone can rule out additional time operation to support all cars.***

I. INTRODUCTION

A driving license is an authority record giving permission to a particular individual to operate at least one kinds of mechanized vehicles, such as a cruiser, vehicle, truck, or transportation on a public road. The laws identifying with the certifying of drivers vary among locations. In some wards, a license is granted after the beneficiary has passed a driving test, but in others, an individual is issued a license before they begin to drive. Different classes of license are commonly available for different types of engine-powered vehicles, particularly enormous trucks and tourist vehicles. The difficulty of the driving test varies widely between wards, as does the influence of factors such as age and the level of training required. In India, the driving license is the report of authority which sanctions its holder to operate various types of engine vehicle on parkways and some other roads to which general public access. In other Indian states, they are regulated by the Regional Transport Authorities/Offices (RTA/RTO).. All the information regarding the people is gathered and stored in the proposed system. A fingerprint sensor is employed to identify the fingerprint of a particular person.If one forgets to carry his or her licence or insurance, or if the documents have expired, the individual will be sent a message stating the amount of the fine he or she has to pay.

II. OBJECTIVE

A. Authentication and Verification

1) Match the driver's fingerprint against a centralized or local database to verify their identity.

2) Ensure that only the registered individual with a valid license can operate a vehicle.

B. Improved Security

1) Reduce instances of identity fraud, such as driving with fake or borrowed licenses.

2) Prevent unauthorized individuals from accessing restricted vehicles or systems.

C. Integration with Smart Systems

1) Enable integration with intelligent transportation systems (ITS), such as automated traffic monitoring or vehicle access

2) Allow potential expansion into multi-use scenarios, such as payment systems or access to restricted areas

III. EXISTING SYSTEM

A survey on license holders shows that 54% of the peoples are not having proper knowledge about driving[3]. In present scenario, there is a possibility of human error like improper observation, corruptions and favoritism by the examiners [4]. More over many skilled driving in Spector are needed to monitor the entire process in the field.

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Hence the available procedure is not efficient and it takes more time to complete the entire process. This system is not reliable. It takes more time to generate the license and the person who monitors the performance needs to stand for long time.

IV. PROPOSED METHOD

In the suggested system, the individual details are gathered and stored in centralized database. For identification of the specific person's point, point scanner is employed. When a specific person places his/ her cutlet on the cutlet print scanner, the person's detail is automatically recaptured from the database along with license and also expiry date. Driving license verification frame is a veritably important problem in numerous countries. thus the biometric grounded driving license checking system is employed because it's veritably easy and useful to screen. Biometrics implies estimates connected with people characteristics. Biometrics protestation(or reasonable countersign) is employed in pc programming as a kind of ID and access control. It's in addition applied to fete individualities in heaps that are being supervised.

Biometric identifiers are thus quantifiable, egregious features employed to address and describe individualities. Biometric identifiers are constantly asked for as physiological in comparison to social ascribes. Physiological ascribes relate to the state of the body. Biometrics exploration generally involves one of a kind cutlet print, face, iris, voice, mark, and hand computation recognition and verification. Among these open biometric features special cutlet print turns out to be maybe the stylish point furnishing excellent mismatch rate and also solid. Other characters like face, iris, voice, hand, and hand figure recognition differs grounded on periods but point is the same as age continues. thus point turns out to be secure.

By enforcing this biometric grounded system i.e. point technology to detect driving license bone can exclude further time consumption to search all vehicles.

V. BLOCK DIAGRAM

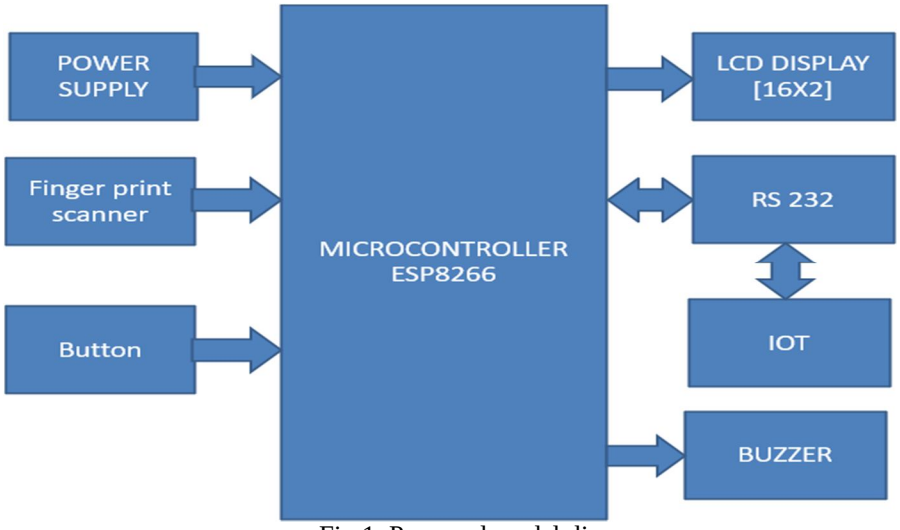


Fig 1. Proposed model diagram

Advantages

- We can put license test anywhere
- No malfunction
- It decreases the debasement and furthermore makes the country more digitalized.

VI. RESULT AND DISCUSSION

Fingerprint-based automatic license verification provides a safe and cost-effective method for identity verification, particularly in areas like driving license authentication, office access, and law enforcement. The system scans a user's fingerprint, which is then compared with a database of accepted fingerprints associated with legitimate licenses. By using biometric information, this approach minimizes the threat of identity theft and guarantees access to only authorized people for such privileges as driving a vehicle or accessing limited areas.

The system is especially beneficial since fingerprints are distinct and hard to copy, providing greater security compared to physical identification cards or PINs. Additionally, this method can simplify the verification process, as it provides for immediate and proper verification, eliminating delay and manual examination. For those with recurring or real-time license checks to undertake, automated fingerprint-based verification presents an easy and safe alternative.

User Information:

- User ID, Full Name
- License Type and Number

Verification Details:

- Date and Time of Verification
- Fingerprint Match Result (Success/Failure)
- License Validity Status (Valid/Expired)

System Logs:

- Sensor ID and Location (if multiple units are in use)
- Any errors encountered during the verification process

Action Taken:

- Access Granted/Denied based on the match result
- Recommended follow-up actions

Security Measures:

- Encryption status of biometric data
- Compliance with data protection standards

VII. CONCLUSION

The implementation of this fingerprint based license checking system is successful and gives an output with no errors. When a fingerprint of an individual is placed on the fingerprint sensor it captures the image of the fingerprint and stores in the database which is done in the enroll phase. In access phase fingerprint image is scanned and check whether the fingerprint images is matched with the stored fingerprint in database ,if fingerprint is matched then it gives the details of the authorized person on the display monitor and also in LCD.

If the fingerprint of an individual is not matched with stored fingerprint in database then it does not gives the details of an individual and displays that the person is unauthorized on the display monitor and on LCD. The open source Arduino uno programming makes it simple to compose code and transfer it to the board. Two phases in scanning the fingerprint image that is Enrollment phase and Access phase, where in enrollment phase fingerprint image is captured and given with unique ID and stored in the database.

This system can be further enhaced and more features can be added with the help of Artificial Intelligence

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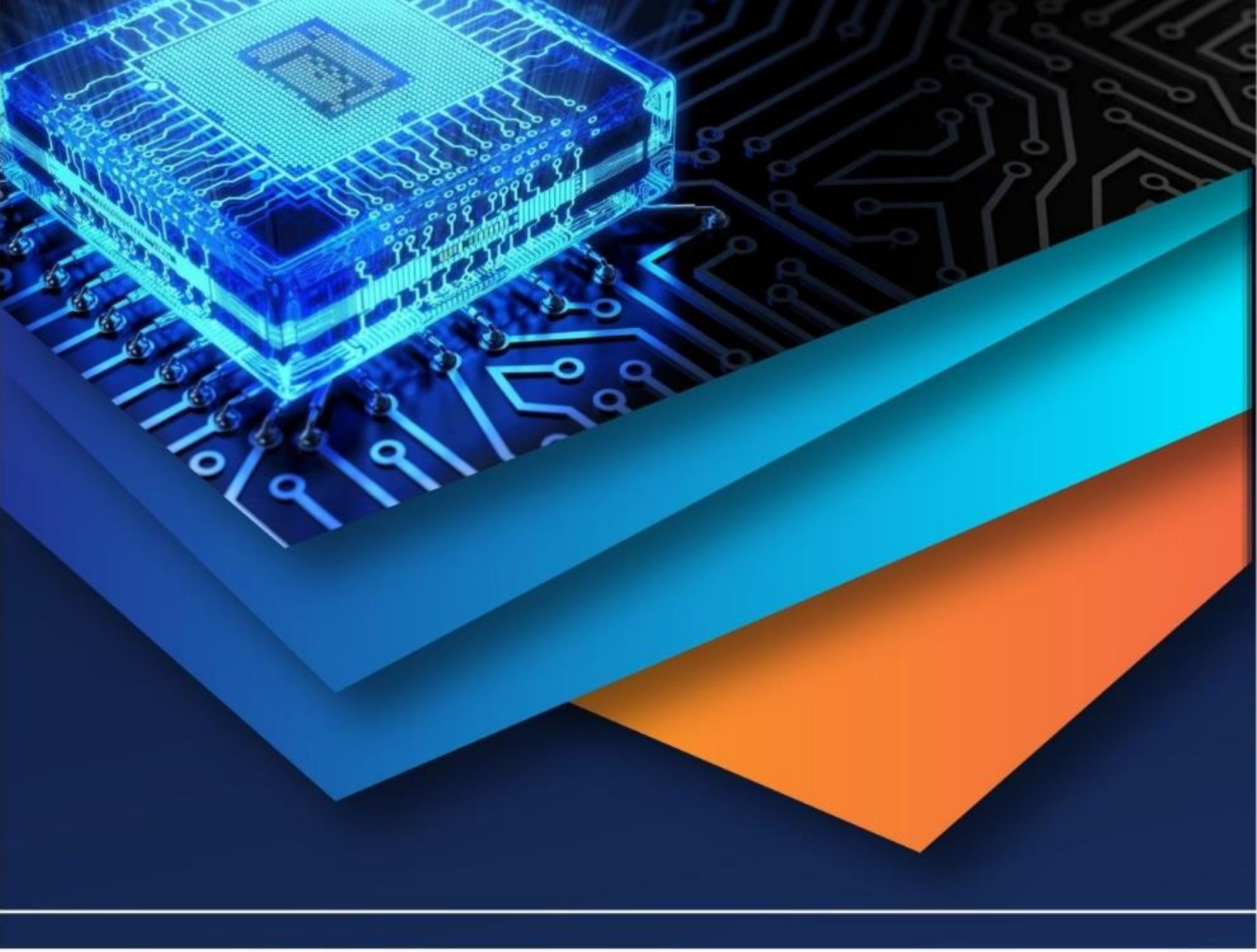
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