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Accident/RTO/Abandoned Vehicle Investigation Using QR Code on Vehicle

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Abstract: ***In India fatal road traffic accidents constitute a significant public health problem in many countries around the world. In Saudi Arabia, road accidents are one of the leading causes of death. The delay in detecting and caring for people who have been exposed to traffic accidents increases the risk of injuries. Injury care after the accident is severely affected by time; a few minutes may separate life from death. Several solutions have been proposed to reduce the incidence of accidents or to reduce the mortality rate at a high financial cost. Recent approaches are using built-in vehicle accident notification system. While these approaches work in pleasing manner, they are expensive, maintenance complex task, and are not available in all cars. However, there is a lack of methods and solutions used to detect the rapid occurrence of accidents and thus speed in transfer of patients to medical centres.***

In this project we are providing solution for betterment of traffic accident management The various uses we are providing are vehicle identification, in case of accident to identify the victim in case of vehicle stolen-using chasse number, etc. we are using QR code to make the users documents secure. QR Codes have fast response time and have large storage capacity, QR Codes can be used perfectly to send encrypted data (messages) to the receiver. In user panel, user will upload documents after submission the verification takes place in verification panel then the verified user will be given the unique QR code. At the signal, traffic police will scan the QR code and get all the documents of the respective user. So this system will provide a smart and easy way of verification of documents and identifying the user in accident management system

I. INTRODUCTION

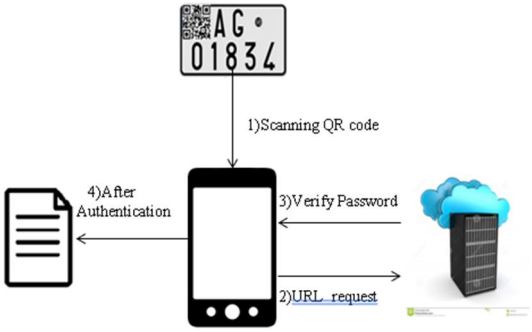
In the existing system, the authenticity of the vehicles and accident notification is done manually. The user needs to notify or identify the accuse person details manually. The incidents are verified by the traffic police. In case of vehicle stolen or accident, it is hard to identify the victim. The proposed system overcomes all these drawbacks and provides a paperless authentication facility. It introduces the new QR-code authentication system using graphical Cryptography. Cryptography includes techniques which merge words with images. The proposed system provides registration and easy identification of vehicle documents by using the QR code. The workflow of the system is as shown in figure 2. First, the user uploads document in user panel. These documents are verified by admin panel and unique QR code is generated dynamically. The generated QR code softcopy is provoided to the particular user. The traffic police will scan the QR code using scanner, authenticate user through webservices and get all the documents of the respective user.

II. LITERATURE SURWAY

The user has to register for the services like insurance, license, PUC & RC book and the RTO officer will verify that document and provide a unique QR code to the user to apply on vehicle body whenever it is necessary to get the information/ details of that user just to scan and get the information. If the traffic police stop driver and asks for various vehicle documents the driver had to tell him the license number manually and the traffic police will scan the QR code using scanner and the data stored on the server will be fetched regarding the documents. This information was stored in database at server through on inline registration and server-side end is in MYSQL. After police logins into the system was able retrieve vehicle and license related information from the database of RTO. If authentication fails, the information is provided to the police to retry otherwise information about the use is not displayed. Survey about problem of RTO, RTO employees have lot of work burden of making registration, license issue, transfer etc., which requires lots of paper work and hectic manual process. As a result, people cannot get things done in right time, this system is very helpful for RTO officials to maintain record systematically, efficiently and reduces lots of paper work and manual effort technique has been discussed for challan system. Here user provide details to RTO database. By scanning QR code which contains overall information of the vehicle we get all vehicle owner details.

A. Proposed System Model

The proposed diagram displaying the how system is going to work.



B. Applications

1) It is useful to RTO officers which will save time of both user and RTO officer.

2) It is useful to confirm the vehicle owner which will identify and useful for search the vehicle

C. Advantages

1) *QR code Technology:* In today's world, QR code playing important role in transaction and data sharing field. So, by using this technology we are going to make RTO system efficient. QR code connects online world to offline world. It is more user friendly. It promotes sharing and networking.

2) *High Efficiency:* Since the entire process are going to be done by a computer and android application it means the entire registrations and data storing are going to be automated and done by the system itself, therefore, saving us the time which might are otherwise spent in the RTO office.

3) *Increased Security:* The proposed system totally stored data in encrypted format. So basically, it increases the security of the system rather than the paper work of previous system. Data can be get decrypted by system device or admin side control.

4) *Time Saving:* The whole world is affected by COVID19 and it's time we must give heed to social distancing. Having a secure distance with others has become a necessity nowadays. Times like this will be problematic if you've got manual RTO system, having an online RTO system won't only allow you to maintain secure distance from them as you'll work remotely. The whole system may be a much safer, time-saving, and faster method for existing RTO system

5) *User Friendly:* As a complete system is online based and also depend of QR code system it gets more user friendly. Any age easily able to handle this system rather than going in RTO office daily. Everything will be done according to plan.

D. Disadvantages

1) If in the wrong hands, it will be a disaster.

2) Exchange of QR code can lead to be a problem.

III. CONCLUSION

By using this technology, it is not necessary to carry all the documents and license every time. Simply you have to carry QR code in your Smartphone or sticker. By using our system, the particular driver goes through the verification process through a reliable and efficient manner for the verifier as well. QR code is currently widely used for implanting messages such that people can easily use their Smartphone's to capture the QR code and gain relevant data from QR code reader which exactly is required for proper verification and validation. User can get QR code by simply registering with the system.

IV. FUTURE SCOPE

- ✓ This project is time saving for vehicle user and traffic police by using the QR code which is applied on user's vehicle
- ✓ This project saves life of person who are injured through accident.
- ✓ This project also help to find the theft vehicle by using QR code.

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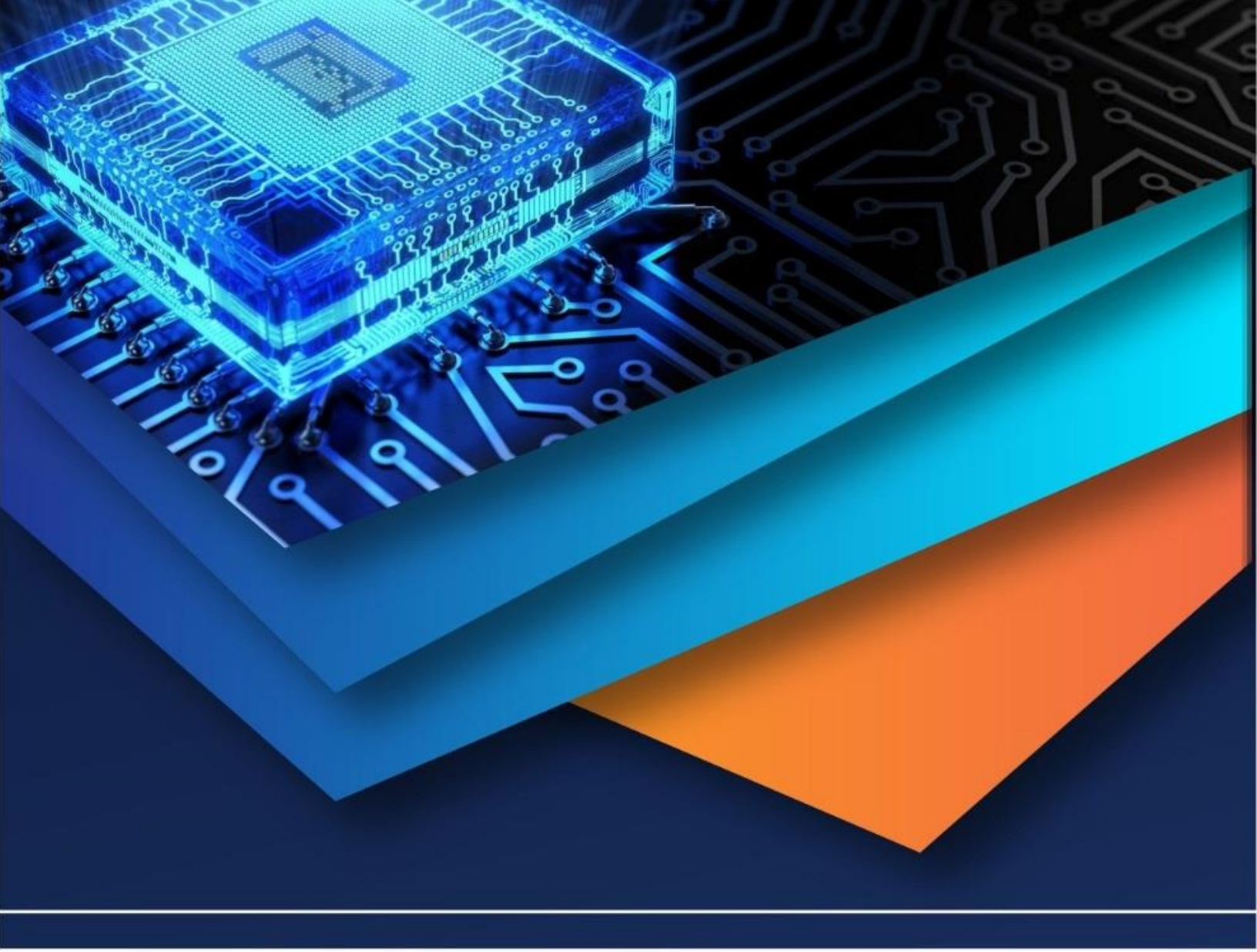

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