Smart Emergency Assistance for Data Recovery in Road Accidents

[1]Abhishek Milind Sathe, [2]Yogesh Ashok Khandge, [3]Karan Kishor Vishwakarma, [4]Poonam R. Pathak

[1,2,3]IT Students, [4]Assistant Professor
Pillai HOC College of Engineering and Technology,
Mumbai University, Navi Mumbai, India

***Abstract*: Human need immediate help to vehicle accident victims during Zero hour, which can turn fatal if correct information is not provided in time, this can be done by retrieving their information via scanning QR-code on vehicle. In this system, there is web application and android application, using web application RTO can take drivers information such as his emergency contact numbers, medical history also all his necessary documents can be saved on web. In case the driver meets with an accident people nearby can scan the QR code to get emergency contact numbers, also medical history will be useful in such situation. And finally, it also has a functionality where police can scan the same QR code and log the accident and review the victim if he is the victim, so when next time in any accident police can view if driver had done same crime/rule violation previously.**

***Index Terms*: Accident Helper, Emergency Information, Medical Information**

I. INTRODUCTION

All we live in world where many people die because of not getting proper medical help after accident. With QR-code, it will be easier for anyone to get information of accident victim such as his emergency contact numbers (of his family members).

Also his medical history will be useful in such situation. We have two QR scanners, one for public where emergency contacts and medical history is accessible, second scanner is for police where they can see previous accidents history, also they can add more about current accident if victim is guilty.

II. RELATED WORK

Government of India is providing an app called Digi- locker where driver can upload his Driving license and other documents but this information can only be viewed on his mobile only, in emergency situation this information can't be retrieved.

All current systems for helping accident victim are hardware based. These systems are not much reliable because hardware systems can get damaged during vehicle accident and become useless.

III. METHODOLOGY

Proposed System: System has implemented into:

1. Web Application
2. Civilian Android App Module
3. Cops Android App Module
4. QR code stickers

Proposed Algorithm for Smart Data Recovery in Road Accidents for WEB APPLICATION

Step 1: Save all drivers data using web application
Step 2: Generate QR- CODE using web-application

Proposed Algorithm for Smart Data Recovery in Road Accidents for Civilian Android App Module

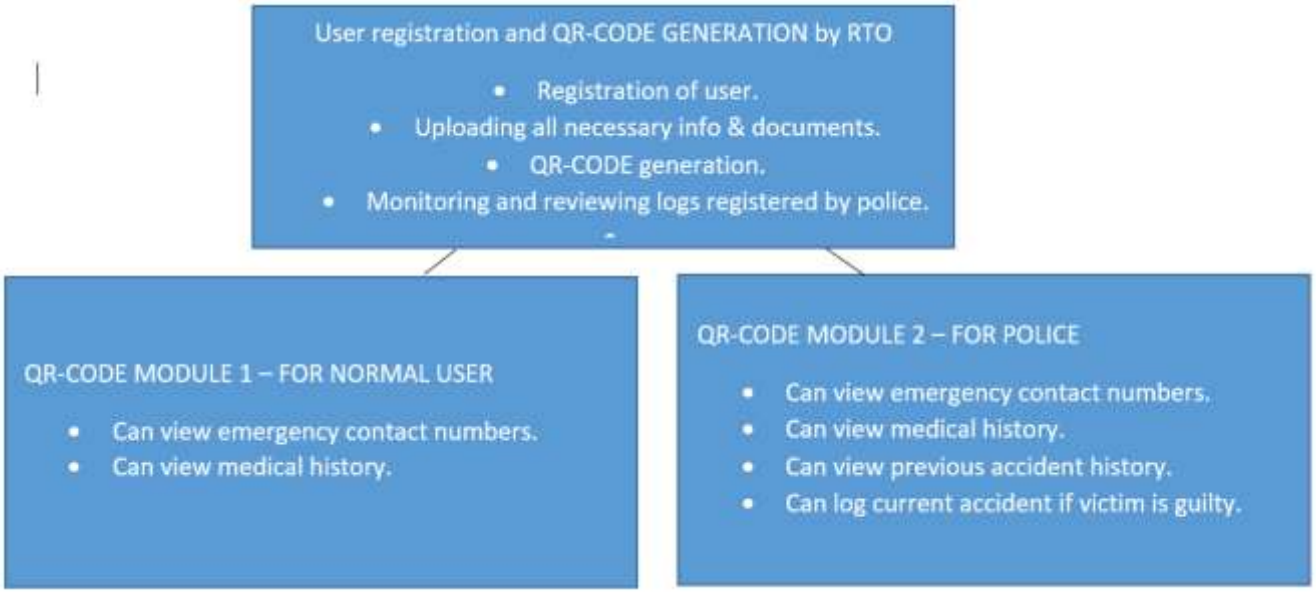
Step 1: Scan QR-CODE of accident victim's vehicle.
Step 2: Get emergency contact number and medical history of driver

Proposed Algorithm for Smart Data Recovery in Road Accidents for Cops Android App Module

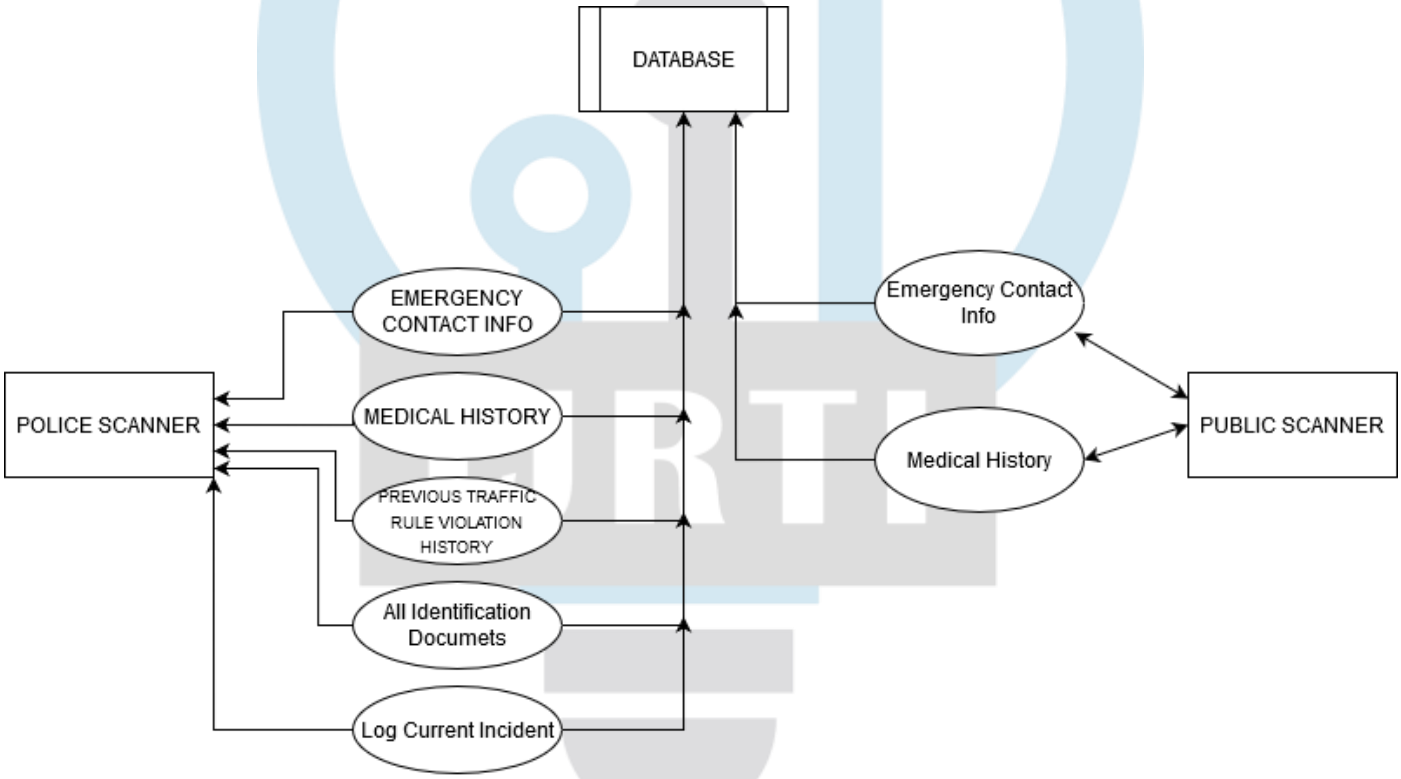
Step 1: Login to scanner application.
Step 2: Scan the QR-CODE of victim's vehicle.
Step 3: Get emergency contact number, medical history, identification documents, and accident history.

System Overview: This system overview shows a system generating QR-CODE by taking all necessary information from driver. In case of accident normal civilian can help driver by scanning QR-CODE on his vehicle. Also police officials can scan same QR-CODE to get documents, previous accident history of driver.

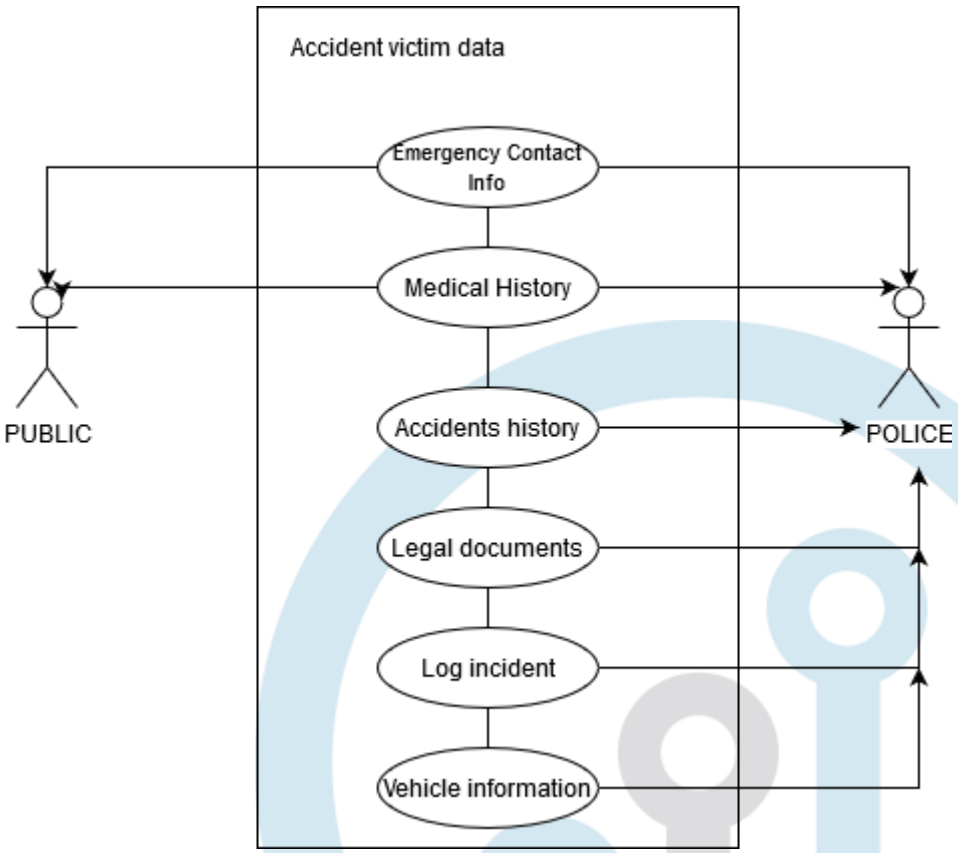
Block Diagram:



Working of Civilian scanner application and Police scanner application Module:

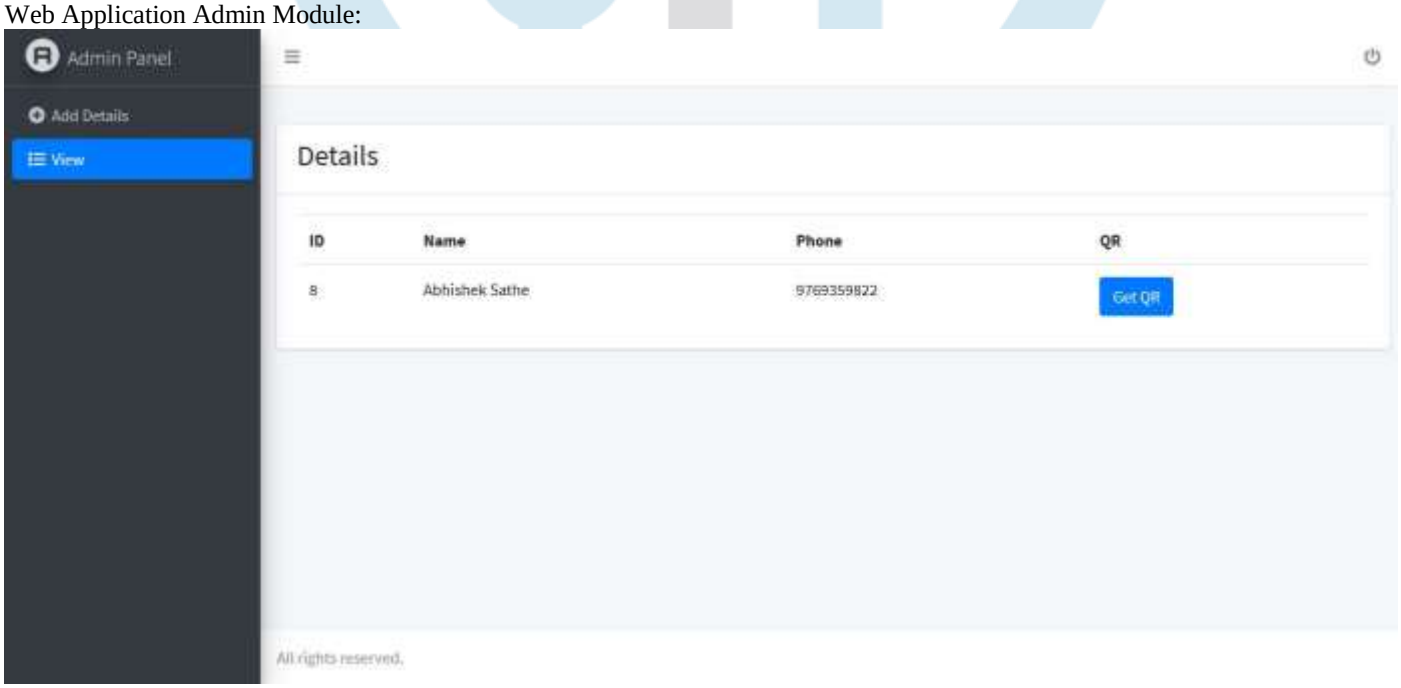


Use Case Diagram:

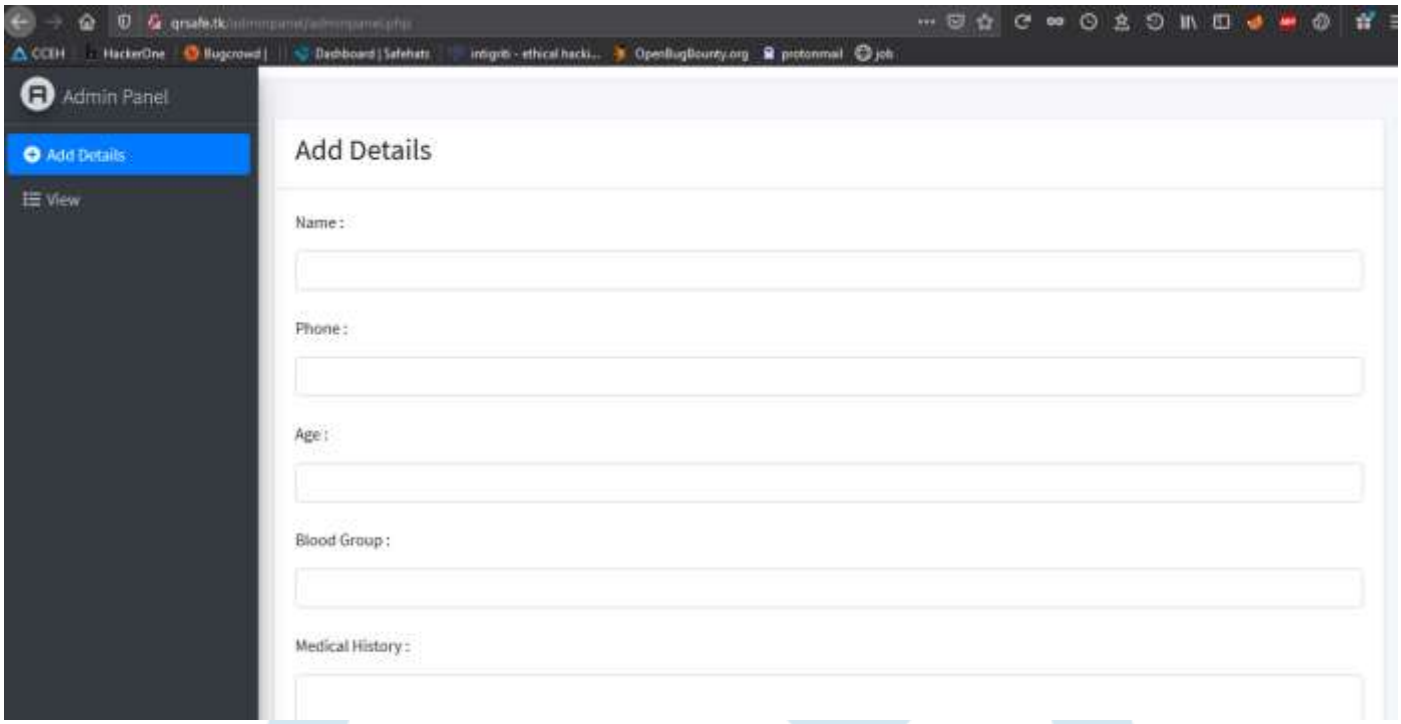


Results:

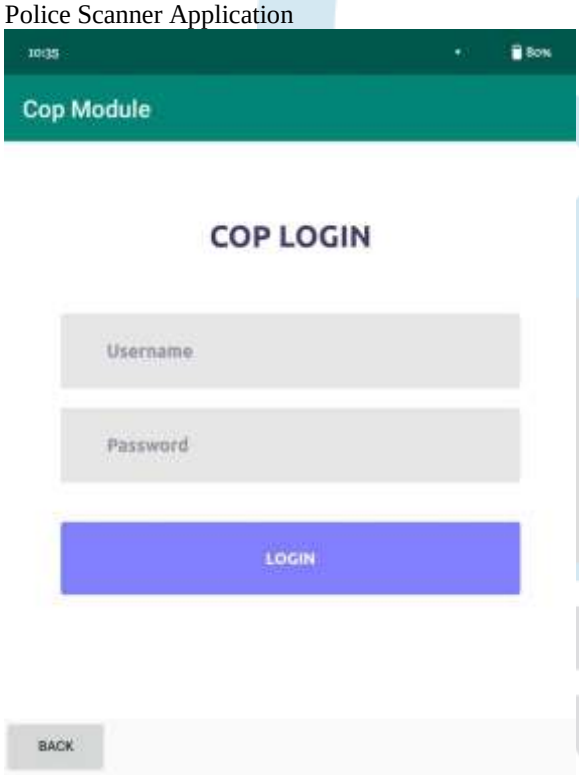
Web Application Admin Module:



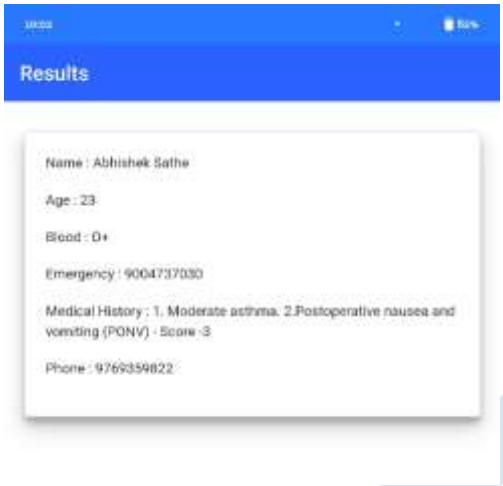
Panel (1):



Police Scanner Application



Public Scanner Module



IV. Conclusion and Future Scope

The traditional System has slow means of data recovery of accidents and has inferior way of informing rescue for victims, also it is troublesome to track the identification of the victim, accidents often go unnoticed, unmonitored and unrecorded both from the victim and operators side. The system provides vital data about person's identity in the crucial time, considering the worst case scenario where in victim in no more alive and it becomes difficult to prove his/her identity. The system is not only user friendly but also cost-effective and can be easily implemented in various sectors. In the current system implemented, User is not aware of where emergency contacts are retrieved and by whom. In future we are going to add logs where user can see who used the QR-CODE to get his information.

V. Acknowledgment

We remain immensely obliged to Mrs. Poonam Pathak for providing us with the moral and technical support and guiding us. We would also like to thank our guide for providing us with her expert opinion and valuable suggestions at every stage of the project. We would like to thank Mr. J.E. Nalavade, Head of Information Technology for his motivation and valuable support. This acknowledgment is incomplete without thanking teaching and non-teaching staff of the department of their kind support. We would also like to thank Dr. Madhumita Chatterjee, Principal of Pillai HOC College of Engineering and Technology, Rasayani for providing the infrastructure and resources required for the project.

References

[1] J Mohan, Rishab Mahajan, Deeksha Prabhu (2017). COST EFFECTIVE ROAD ACCIDENT. 2017 Department of Electrical and Electronics Engineering, International Islamic University, Chittagong, INSPEC Accession Number: 18792575 DOI: 10.1109/ICISET.2018.8745570

[2] Md. Sadad Mahmud, Maliha Monsur, Md. Saniat Rahman Zishan. (2018). An arduino based accident prevention and identification system for vehicles INSPEC Accession Number: 17579817DOI: 10.1109/R10-HTC.2017.8289021S. Jacobs and C. P. Bean, "Fine particles, thin films and exchange anisotropy," in Magnetism, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271–350.

[3] 2018 International Conference on Innovations in Science, Engineering and Technology (ICISET), Chittagong, Bangladesh, 2018, pp. 496-500. doi: 10.1109/ICISET.2018.8745570R.