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LPR MOBILE APPLICATION

Prof. Dhavale S R

1 Aishwarya Biradar , 2 Smita Shinde , 3 Sheetal Adam, 4 Nikita Yaldandi , 5 Mohini Randive

Brahmdevdada Mane Institute of Technology, Belati, Solapur.

ABSTRACT:

License Plate Recognition (LPR) is one of the making use of digital image processing to detect license plate of vehicle which is use to recording data automatically into the parking system. Specially to recognizing license plate of vehicle. In another country the OCR has developed to recognize license plate, but it could not be used just like that because there are some differences license plate format. There are lot of algorithm to convert digital image that contain text into file text and one of the algorithm is Optical Character Recognition. This function of algorithm is scan the digital image and convert it into file text. OCR is to increase Accuracy of Recognizing License plate.

Keywords

OCR , phpmyadmin , Android Studio , Wamp , OpenCV , php .

1. INTRODUCTION

License plate is an important thing for vehicle to operate on the road. It is an identity of the vehicle that operate on the road, so it was put on the front side and rear side of the vehicle. It is must be easy to seen by people or police.

One of the most important facilities is parking facilities. Parking facilities is really important for market area, department store area, office area, or campus area. Parking facilities will manage the vehicle who visits that area. Because of that, good parking management is needed to make people feel safe and comfort when park their vehicle. On parking facilities there is a person who manage the vehicle in parking area. This person will give parking ticket to people who parked there for paying the parking services. This ticket contains information about license plate and price the people must pay. This person still doing this in conventional way, so the data record of vehicle who was parked is still write by hand and this is not good.

With rapid development in technology and high mobility, this problem can be solved by using an application for the person who manages parking area. Because of high mobility is needed, so this application will be android application and using android studio to build it. This modern parking application will make the person who manage parking area easy to record the data of vehicle who was used the parking service. There is one feature that can extract the license plate of vehicle become text just 2 taps on screen. With this feature recording data will be easier and faster. Algorithm

that used to extract the license plate is Optical Character Recognition (OCR).

Based on above description of the background can be formulated existing problems such as how to implementing mobile vision library to android how to know the accuracy of mobile vision. The purpose of this paper is to implement the mobile vision library and integrate it in android application using android studio. The objectives and expected result of this implementation is to know the accuracy of mobile vision.

2. OVERALL SCENARIO

In this proposed project our goal is to increase the scalability and availability of the Android application architecture ,and thus implementing the accuracy of mobile application.

3. WRITE DOWN YOUR STUDIES AND FINDINGS

For our project we are using the Iterative development model. Its basic idea is that the software should be developed in increments, each increment adding some functional capability to the system until the full system is implemented. At each step, extensions & design modifications can be made. An advantage of this approach is that it can result in better testing because testing each increment is likely to be easier than testing the entire system.

4. LITERATURE REVIEWED

License Plate Recognition (LPR) is one of the making use of digital image processing to detect license plate of vehicle which is use to recording data automatically into the parking system. Specially to recognizing license plate of vehicle. In another country the OCR has developed to recognize license plate, but it could not be used just like that because there are some differences license plate format. There are lot of algorithm to convert digital image that contain text into file text and one of the algorithm is Optical Character Recognition. This function of algorithm is scan the digital image and convert it into file text. OCR is to increase Accuracy of Recognizing License plate.

5. IMPROVEMENT AS PER REVIEWER COMMENTS

Analyze and understand all the provided review comments thoroughly. Now make the required amendments in your paper. If you are not confident about any review comment, then don't forget to get clarity about that comment. And in some cases there could be chances where your paper receives number of critical remarks. In that cases don't get disheartened and try to improvise the maximum.

6. Results

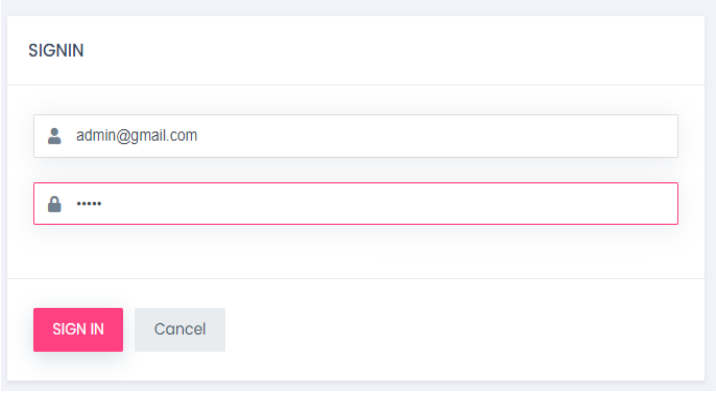

Fig 6.1 Sign in page of the admin panel.

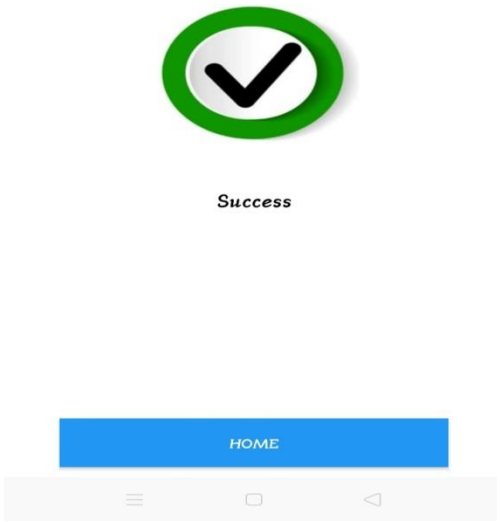

Fig 6.3 After scanning the number plate through android app when the data is matched it displays success.

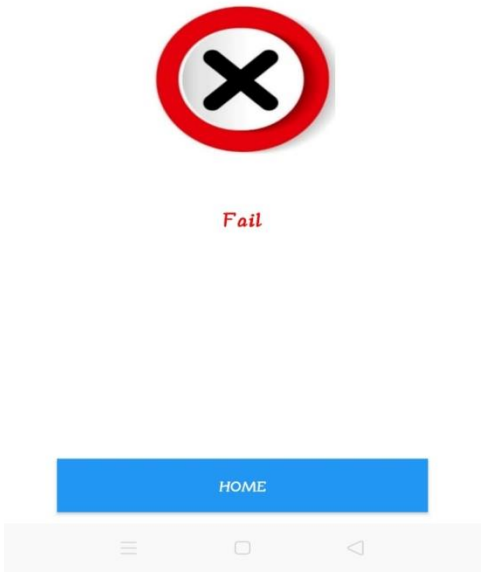

Fig 6.2 After scanning the number plate through android app when the data is not matched it displays fail.

7. Conclusions

This research investigates the potential of implementing the LPR application in mobile device for real time environment using a low cost, portable and efficient LPR application with the use of smartphone device. The LPR application can be installed in user's smartphone device which is easily accessible by the user. This can reduce the need to carry multiple devices for separate usage.

7. References

[1] X. Y. Jing, F. Wu, Z. Li, R. Hu and D. Zhang, "Multi-Label Dictionary Learning for Image Annotation," in IEEE Transactions on Image Processing, vol. 25, no. 6, pp. 2712- 2725, June 2016