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TODAY'S PRESENTATION

DISCUSSION OUTLINE

Introduction

Literature survey

Problem identification

Working principle

Conclusion

Reference

INTRODUCTION

LPR is an actively researched domain in the field of image processing.

The realtime LPR is vital in automatic traffic watching and enforcement of traffic and also helps in identification of car coming into in secure premises.

Image processing techniques like edge detection, thresholding and resampling have been used to isolate the registration number plate and also the characters.

LITERATURE SURVEY

*Mrs. J. V. Bagadel,
MSukanya Kamble ,
Kushal*

*Pardeshi , Bhushan
Punjabi , Rajpratap
Singh*

*Automatic Number Plate
Recognition System using
a machine learning
approach*

*V.
Koval , V.
Turchenko V. Kochan
, A. Sachenko , G.
Markowsky*

*Smart License Plate
Recognition System
Based on Image
Processing
Using Neural Network*

Khalid W. Maglad

*A Vehicle License
Plate Detection and
Recognition System*

*Mohamad Riduwan
Md Nawawi*

*License Plate
Recognition (LPR): A
Review with
Experiments for
Malaysia Case Study.*

Traffic violations

Increased traffic
violations and less
efficient
surveillance

*Human handled
parking lots*

Slow registration
of the cars

*Less efficient toll
gates*

Increased traffic at
toll gates leads to
increased traffic.

*Low security in
societies*

Identifying the
number and ID's of
vehicles entering is
difficult

PROBLEM IDENTIFICATION



FOR PHASE 1 COMPLETION



Image Acquisition



Preprocessing



**Number Plate
Localization**



Edge Detection



**Character
Segmentation**



**Character identification
and database matching**

PHASE 1 WORKING PRINCIPLE

Image Acquisition

In this step the image is acquired from different resources. The image could be a directly a picture or could be captured from a camera. The image is captured and acts an input for the next step.

Preprocessing

Pre-processing is the method wherein background illumination situations and the wide variety of plate localization algorithms are used.

Number Plate Localization

The number plate localization is the segment in which specifically focuses on ROI (Region of Interest) where we discover the contour area. Contours can be explained really as a curve becoming a member of all of the non-stop points (along the boundary), having identical color or intensity.

PHASE 2 WORKING PRINCIPLE

Edge Detection

It is the phase in which we detect the edges of the license plate.

Character Segmentation

It is the most crucial step for any OCR system because the characters are the smallest unit of any language script. After the segmentation of the character features can be ext, it cannotbe recognized accurately by the feature extraction algorithm.

Character identification and database matching

It includes the mechanical and electrical conversion of scanned images of handwritten, typewritten text into machine text. After the characters are identified and retrieved, the characters are then put in the database. The plate numbers present in the database can be later used for matching.



CONCLUSION

License plate recognition technology is a very powerful technology. In terms of ease and usefulness, this technology has a widespread use in traffic systems, toll plazas, parking lots etc. Although this technology requires a lot of improvements



REFERENCES

1. https://www.tutorialspoint.com/dip/optical_character_recognition.htm
2. STUDY OF VARIOUS CHARACTER SEGMENTATION TECHNIQUES FOR HANDWRITTEN OFF-LINE CURSIVE WORDS: A REVIEW
3. <https://towardsdatascience.com/image-pre-processing-c1aec0be3edf>
4. A Vehicle License Plate Detection and Recognition System Khalid W. Maglad
5. *Smart License Plate Recognition System Based on Image Processing Using Neural Network*
6. Automatic Number Plate Recognition System: Machine Learning Approach
7. License Plate Recognition (LPR): A Review with Experiments for Malaysia Case Study

