

“Number Plate Recognition”

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INTRODUCTION :

Number Plate Recognition System is software that recognizes the number plate of the vehicle of people who breaks the traffic rules and e-challan will be sent to them automatically. Also it will depict the details of the owner of the vehicle. The information can also be used at various areas like toll plaza, parking area, highly security area, border areas etc. In this paper, a simple technique is presented for Automated Number Plate Recognition (ANPR) System, which can be used many applications for automated recognition of vehicle number plates. A simple algorithm is designed that can help to recognize number plates of vehicles using images taken by camera. The recognition of number plate's algorithm has five parts: Acquisition image, pre-processing, Edge detection and segmentation, feature extraction and recognition of character of number plates using suitable ML algorithms.

I. MOTIVE :

Goal of the Project is to prevent people from breaking the traffic rules and making easy for the traffic inspectors to trace those who break the rules.

II. Work Procedure

- **Image Input /Acquisition**
- **Preprocessing**
- **Edge Detection And Segmentation of Number Plate Character (Sobel And Vertical Fragmentation)**
- **Feature Extraction (Using Statistical & Structure Features)**
- **Classification(Testing-Training)**
- **Recognition Of Number Plate**



III. CONCLUSION

In this work, we have presented technique to recognize number plate of vehicles. For this, we introduced Image capture, preprocessing, edge detection, segmentation, character resizing, feature extraction and finally recognized character of number plate using ML algorithms on Indian plates. Dataset creation consisted number of images which are collected real times, parking and etc. It has been found that other characters do exist in number plate besides vehicle own registered number. To deal with such erroneous characters, character analysis has been applied using our machine learning algorithm. For such systems, still we have to make few changes to our Purposed system. Future work lies in producing more accurate results with lesser response time according to the prescribed specifications of Indian vehicle number plates and automated system software is to be developed in future work.

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