# 

# 

# Mobile Application Development Lab

# Project

Submitted by

Sidharth Jindal -

Rohith Reddy -

Yash Agarwal -

# B.TECH(CCE) –VI SEMESTER , SECTION B

# DEPARTMENT OF I&CT, MIT, MANIPAL

# 

TABLE OF CONTENTS

|  |  |  |
| --- | --- | --- |
| Serial Number | Statement | Page Number |
| 1 | Abstract | 3 |
| 2 | Advantages/Disadvantages | 4 |
| 3 | Applications | 4 |
| 4 | Requirements | 5 |



**Synopsis:**

# Vehicle Number-Plate Recognition

Number plate recognition is a form of automatic vehicle identification. A number plate is the unique identification of vehicle. Real time number plate recognition plays an important role in maintaining law enforcement and maintaining traffic rules. It has wide applications areas such as toll plaza, parking area, highly security areas, boarder’s areas etc. Number plate recognition is designed to identify the number plate and then recognize the vehicle number plate from a moving vehicle automatically.

Automatic number-plate recognition(ANPR) is a technology that uses optical character recognition on images to read vehicle registration plates to create vehicle location data. It can use existing road-rule enforcement cameras, or cameras specifically designed for the task. ANPR is used by police forces around the world for law enforcement purposes, including to check if a **vehicle is registered or licensed**. It is also used for electronic **toll collection on pay-per-use roads** and as a method of cataloguing the movements of traffic, for example by highways agencies.



Number plate extraction is that stage where vehicle number plate is detected and extract the number plate text. The segmented characters are normalized and passed to an algorithm. At last the optical character information will be converted into encoded text. The characters are recognized using Template matching. The final output is in the form of string of characters.

Automatic number plate recognition can be used to store the images captured by the cameras as well as the text from the license plate, with some configurable to store a photograph of the driver. Systems commonly use infrared lighting to allow the camera to take the picture at any time of day or night. ANPR technology takes into account plate variations from place to place.

**Advantages:**

* This application provides user and car details by simply scanning the Vehicle Number plate.
* If any driver isn't following traffic rules, then police can mark as a Black list car.

**Disadvantages:**

* Requires active internet connection.
* System may provide inaccurate results if data not entered properly.

**Applications:**

* The system can be used for toll plaza, parking area, highly security areas, boarder’s areas etc.



**Hardware Requirement:**

* I5 Processor Based Computer
* 1GB-RAM
* 80 GB Hard Disk
* Monitor
* Internet Connection
* Android Device

**Software Requirement:**

* Windows 8 or higher
* Android Studio