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"Smart Tollgate Systemization Through Pico-BarCode"

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AGENDA

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- *Literature Review*
- *Problem Statement*
- *Proposed System*
- *Objectives & Goals*
- *Architecture*
- *Advantages*
- *Conclusion*

INTRODUCTION

Aim:-

To avoid traffic congestion & unnecessary delay of collection of toll and also focused on stolen vehicles and vehicle used in crime and accident.

Motivation:-

The limitations in exiting scheme , a new picture-embedding 2D barcode achieving a better trade–off between the perceptual quality and decoding robustness is needed .

Many problems created like traffic congestion ,pollution, people's frustration this is also what motivate us to propose this system.

LITERATURE SURVEY

Automated Toll Gate System Using RFID And GSM Technology

Author:- T. Arun Prasath, M.S.Dhanabal

ATCS is a used for collecting tax automatically. RFID cards simulate a credit card in a capacity and pattern, the tag usually contains an embedded microprocessor.

Drawback:-

- illegal entry -registered and providing the warning sound.
- Alarming a sound when vehicle doesn't have sufficient balance.
- Require hardware – i.e RFID tag , RFID Reader

Automated Toll Collection System Using NFC And Theft Vehicle Detection.

Author:- Sarika Bharambe, Priyanka Kumbhar, Pragati Patil, Kavita Sawant

In this, NFC tag will be placed by toll authority having unique identification number (UIN) and user details. Active NFC tag will be attached to the RC (Registration Certificate) Book or Smart card . When vehicle passes through the tollbooth system, data on NFC will be read by NFC Reader.

Drawbacks:-

- Range of NFC is 10 cm.
- NFC works only in Android Phone.
- Hardware require i.e NFC tag, NFC Reader

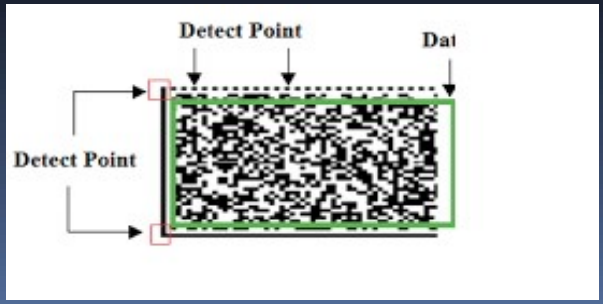
"Automated Toll Booth Reduction And Theft Vehicle Detection Using HC2D Barcode."

Author:-Jadhav Jyoti, Kamble Pooja , Karpe Jayshri ,Wakchaure Manoj

In this system toll collection system which is based on hc2d barcode. In this system camera is used for capturing the image of the barcode. The captured image would be send to barcode decoding process and the toll would be cut from the customer's account and then open the gate.

Drawbacks:-

- Readable by hackers.
- MD5 encryption algorithm used which is too old now.



PROBLEM STATEMENT

- Pico-Barcode Technology applied to monitor vehicle on roads and perform automatic toll collection which reduces tollgate traffic,avoid illegal passes from tollgate by detecting the stolen vehicles ,vehicles used in crime.

Proposed system

- The proposed PiCode system is described with an emphasis on the novel aspect of encoding and decoding algorithms.

Objective and goals

- Automatically reduce toll amount from the user's account.
- To reduce the time at tollbooth to pay the toll.
- To detect the stolen vehicle .
- To detect the vehicles used in crime.