

# Finding Illegal Sand Mining Vehicle using RFID

R.Raghu<sup>1</sup>, Sreekanta.S<sup>2</sup>, Venu.V<sup>3</sup>, Yuvaraj.G<sup>4</sup>

Assistant Professor, Dept. of Information Technology, Adhiyamaan College of Engineering, Hosur,  
Tamilnadu, India<sup>1</sup>

Student, Adhiyamaan College of Engineering, Hosur, Tamilnadu, India<sup>2,3,4</sup>

**ABSTRACT:** nowadays the sand mining in our state in increased lot. Due to this source of our Land is reduced. This type of crime is must wanted to avoid preventing our future environment. For this problem we implemented the project called prohibition of sand mining using RFID. Here RFID tags are provided the every vehicle that used for sand transport to different place. Using this tags unique number is generated to every vehicle. If another vehicle used the same number means it finds out and gives the alert message. This project will helps to finds the illegal sand mining and protect from illegal persons. And the alert message will goes to respective department and easy to find out the illegal sand mining vehicles.

**KEYWORDS:** RFID (Radio frequency identification), GSM (Global system monitoring), RFID tags is used to read the number of vehicles,

## I. INTRODUCTION

Currently the sand mining vehicles are increased due to needs of peoples and construction sites. by using this needs the illegal sand mining are done by anti social elements. To avoid this problem RFID is used in this project. Here RFID provide the unique number to every vehicle that mining the sand. This RFID is given when vehicle is requested for bill. And RFID tags is placed in every toll and number is record in database if the same number is repeated again means that vehicle is identified as unauthorized. If the RFID tag also not available means it declared as unauthorized.

Here the RFID plays a major role in this project because, it generate the unique number to every vehicle. And using the software the number of the vehicle is scanned and stored in the database for future use. And if the number is matched with the unique number the message is send as lorry number is matched.

The second case is if the number is not matched means the message is send as lorry number is matched with the unique number using the GSM. And the third case if the same number is repeated again means the message is sends as lorry number is repeated.

## II. EXISTING SYSTEM

The illegal sand mining vehicles are identified only when the vehicles are caught by authorized department or cops. This is very difficult to find that vehicles and risk is also too high for authorized departments. Sometimes they even can't do that. And even the bills are also made duplicated by them and showed to the higher authority and can be easily escaped by them.

## III. PROPOSED SYSTEM

In this proposed system RFID tags is given to every vehicles by this tags vehicles is identified by unique number. Using this unique number vehicle is marked as legal if the RFID tags are repeated again means it identified as unauthorized. And RFID tag are also not available means declared illegal vehicle.

#### IV. KNOWLEDGE ON THE SYSTEM

The operators involved in this project must agree to incorporate all technical requirements as well as non-technical in order to ensure the usage of the system is well suited for multimode settings. a promotional campaign should be conducted to encourages users to use this system.

#### V. SOFTWARE DESCRIPTION

Embedded C is a set of language extensions for the C Programming language by the C Standards committee to address commonality issues that exist between C extensions for different embedded systems. Historically, embedded C programming requires nonstandard extensions to the C language in order to support exotic features such as fixed-point arithmetic, multiple distinct memory banks, and basic I/O operations.

Extended the C language to address these issues by providing a common standard for all implementations to adhere to. It includes a number of features not available in normal C, such as, fixed-point arithmetic, named address spaces, and basic I/O hardware addressing.

##### A. *EMBEDDED C ON HARDWARE*

C is the language of choice for any type of systems programming (including embedded systems), because it allows the programmer to gain easy access to the hardware. Unfortunately, the built-in support for that access isn't as great as what C's reputation might imply.

Depending on the environment, programmers may need to directly manipulate memory, registers, processor status flags, I/O ports, or interrupt vectors and handlers. Pointers do allow direct access to memory, but all other hardware resources must be accessed with assembly language, either through a separately written and linked function, in-line assembly (if your compiler allows it), or very nasty tricks like executable strings. Fortunately, because C is so often used for systems programming, most compiler vendors include in their standard library package routines for manipulating ports and restricted aspects of interrupts.

Mainstream compilers, though, seldom include a means of accessing processor flags and register contents, or completely general support for interrupt use. Thus, If you need to manipulate only memory and ports, you may be able to avoid writing any assembly in your project by becoming familiar with the support built into your compiler's library. Otherwise you will need to resort to the techniques developed here

##### B. *EMBEDDED C ON THIS PROJECT*

Data transmitted from the tag can be product, location or any other information. The main popularity of the RFID system was that it has the ability to track moving objects. RFID tag consists of a chip with an antenna. The chip helps to store 2Mb of data. Also RFID tags can work on different frequencies. When the tag comes in reach with the RFID reader, the reader will detect the tag and sends a unique code of data present in the tag serially.

#### VI. MODULES DESCRIPTION

##### A. *IDENTIFYING THE VEHICLE:*

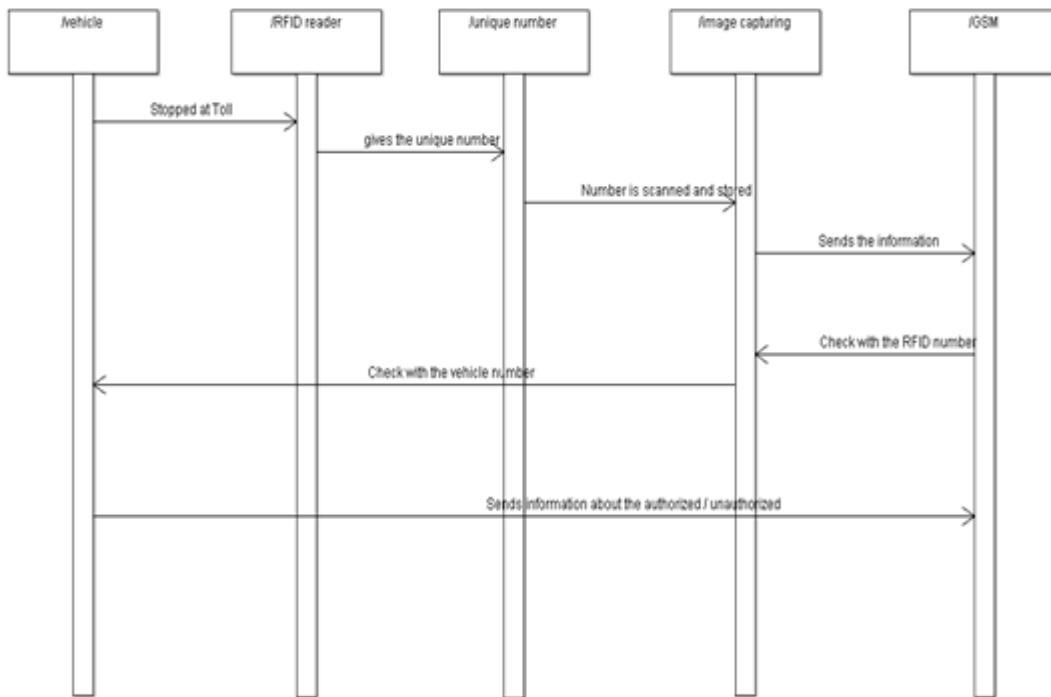
- The vehicle must cross across the toll with that RFID tag
- RFID reader gives the unique number to that vehicle
- And the number is stored in database
- If the vehicle is authorized means it will cross the toll

##### B. *SCANNING THE NUMBER:*

- The number of the sand mining vehicle is must scanned.
- Scanned number is stored in database.
- The number is used for future use.

**C. COMMUNICATION:**

- The communication must be done between the toll and authorized department
- If the legal vehicle is crossed means it will send about the legal vehicle information
- And the RFID tag and available in vehicle means it declared as illegal vehicle and sends the information to the authorities and cops.



**VI. SNAPSHOT**

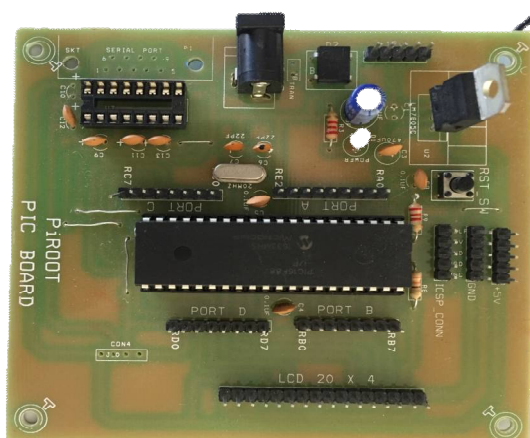


Fig.1: Pic board



Fig 2: RFID tags

## VII. CONCLUSION

We have implemented an automatic text detection technique from an image for Inpainting. Our algorithm successfully detects the text region from the image which consists of mixed text-picture-graphic regions. We have applied our algorithm on many images and found that it successfully detect the text region.

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