**FASTAG IMPLEMENTATION**

The aim of this project is to design using Arduino. To build the project, our required components are,

* Arduino UNO
* RFID module
* 16x2 LCD
* Servo motor
* Bluetooth module
* Buzzer
* Smart phone

**Introduction:**

The face of the Indian economy is undergoing fast and exciting changes. With digital transformation taking over, our lives have become more convenient and efficient, and mundane jobs have become less taxing. Remember when standing in long queues was a taxing task? Or when you had to go from store to store to buy just a few things? Well, digitisation across sectors has reduced this human effort by a significant margin, making everyday chores easy, quick and convenient. And this advancement is now being taken from your home onto the roads.

In keeping with the changes, the Fast tag technology has been implemented at national highways across the country at approximately 615 toll plazas. The government is keen to implement a cashless model wherein 100% of the toll is collected through Fast tag. To further this objective, it has made it mandatory for all vehicles to have a Fast tag from 16th February, 2021, without which, you will need to pay double the amount.

Fast tag is affixed to the windscreen of the vehicle and is linked to a prepaid account. Toll payments are made through RFID, as the vehicle drives through the toll gate, which means you do not have to stop at a toll plaza on your journey. The prepaid Fast tag account will be debited for the transaction which makes payments easier. For this, you need to get a Fast tag profile for your vehicle first, for which you can log onto Bluetooth module’s Fast tag terminal and make the payment through the recharge option using the UPI pin of your bank account.

Once your Fast tag accounts is active, and have sufficient balance the appropriate toll amount will be automatically deducted from your account every time your vehicle passes through a Fast tag enabled toll plaza. The government has instructed the National Highway Authority of India (NHAI) to convert all toll lanes across the National Highway network into Fast tag lanes. So, Fast tag will be an omnipresent facility across Indian highways in the days to come.

**Working:**

Here the vehicle will have an RFID tag mounted on it. The check post is able to read the tag and if the vehicles have sufficient balance to credit the fast tag amount, the amount will be credited automatically from the fastag wallet and the check post will be open after every successful credit. Else, the gate won’t open and the user needs to recharge his fastag wallet. To recharge the wallet, Bluetooth module is used here. The statuses are displayed on a lcd screen as well.