



# Implementation of railway gatepost in Google Map

Presented by-

- Yashi Agrawal
- Rohan Agarwal
- Yaggesh Sharma

MENTOR-

Dr. Ashish Aggarwal

Assistant professor

# INTRODUCTION

- *Indian Railways (IR) is one of the chief sector for the growth of modern India. Indian railway network comprises of 119,630 km of total track and 92,081 km of running track in which presently there are 30348 level crossings.*
- *These vast numbers effect the whole population of the country which mainly includes the everyday schedule affected by the gatepost present across the nation.*

# PROBLEM

- *Every individual's schedule is highly affected by the timings of closing and opening of these railway crossings.*
- *Medical sector is one of the major sector that is pretentious by it and also workers or employees of other fields. Usually, ambulances get stuck for hours and have to wait to pass the railway crossing and general people also get late due to it.*

# OBJECTIVE

- *The main purpose of the idea which we are presenting here is to implement the location of railway gate post on the Google map with the help of various sensors , so that people can know the live scenario of the gatepost and can move accordingly.*



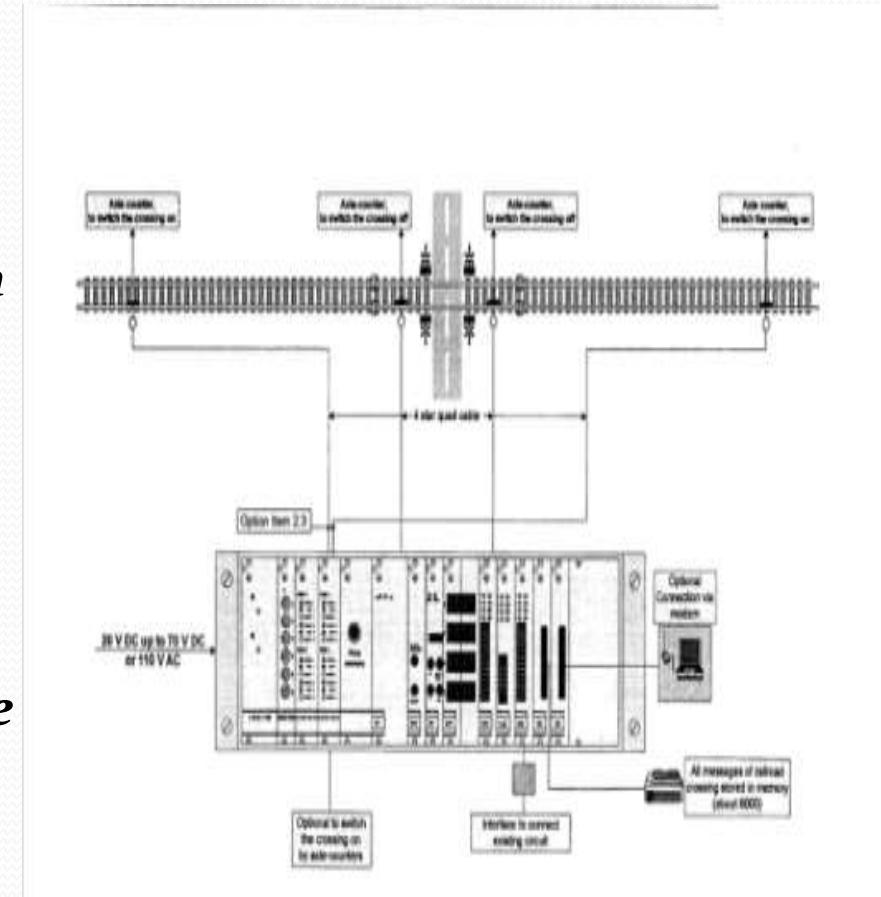
# METHODOLOGY

## Step 1 -

*Each double wheel sensor records wheel passages without contact, independent of velocity or direction. The module receives impulses from the double wheel sensor and forms them into digital output. Pulses from the double wheel sensor provide the signal to switch the crossing on, and record train direction and speed information.*

## Step 2-

*The control system needs only the information from one of these double wheel sensors for switching on the crossing system. It will also detect if the train left the area( by switching or changing the direction)before reaching the level crossing*



## *Step 3-*

*we will connect this control system to the satellite through which the data can be uploaded to the Google map or a particular app which we will develop for the gatepost information*

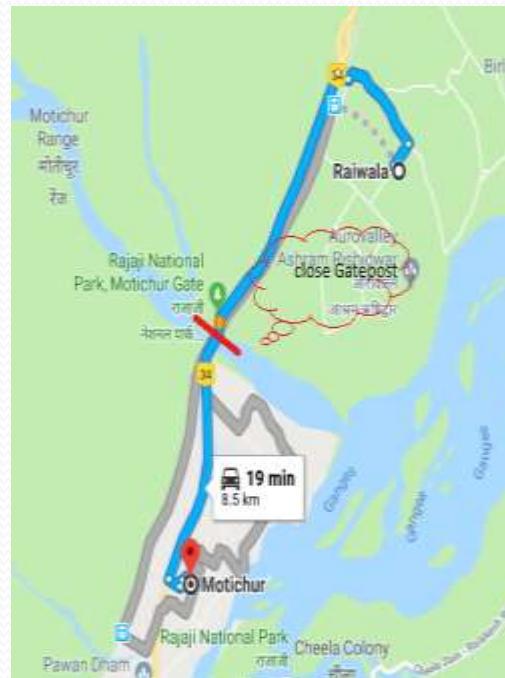
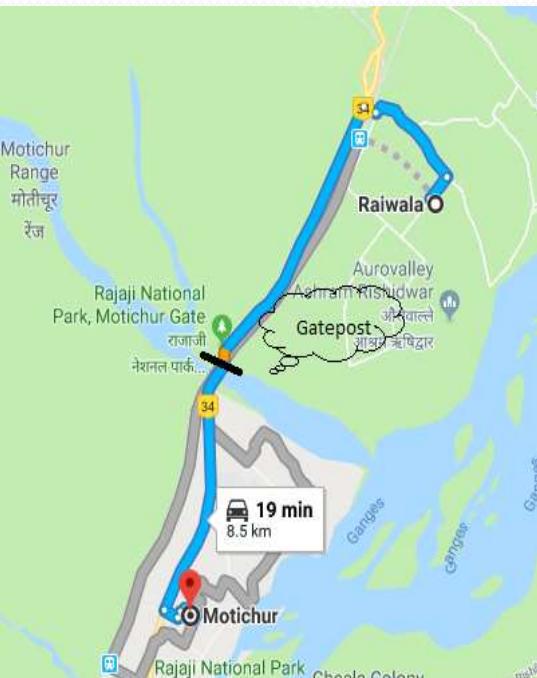
*Types of satellite used in railway-*

- 1. INSAT 3C**
- 2. NaVIC**
- 3. IRNSS**

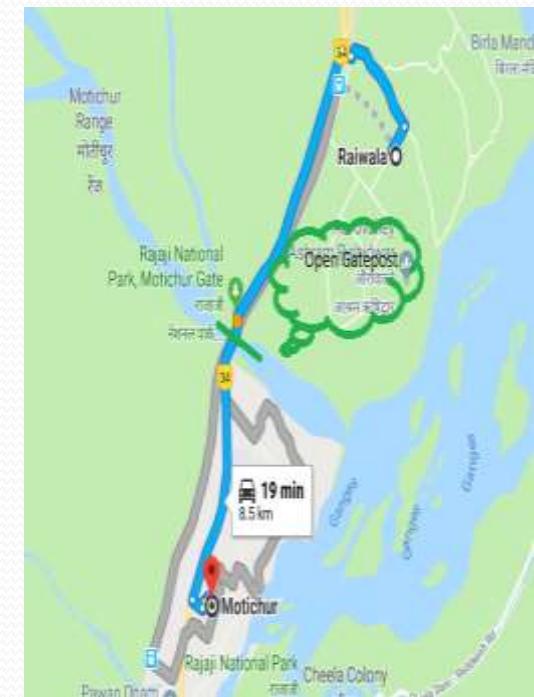


# FEATURES

- we will show railway crossing as a line in Google map describing three situations :



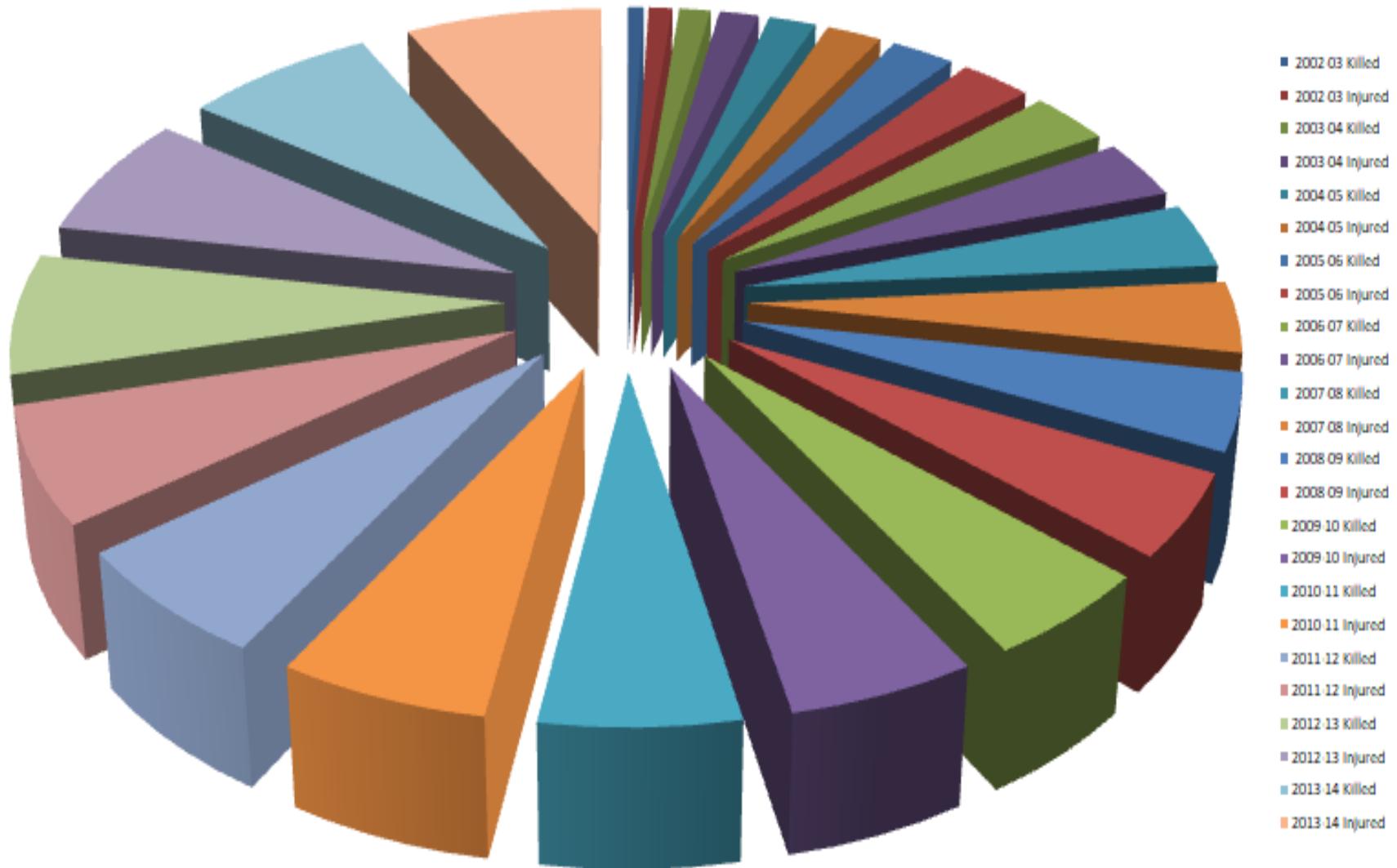
About to close



Closed

Opened

## Accident occurred before implementation of Automatic Gatepost



# CONCLUSION

- *Adding this feature to the current set of tools on Google Maps will equip the common people with a way to save valuable time in their day to day life. Providing 15 minutes prior alert will help reduce delays caused due to traffic which on an average by 7 minutes. That can prove vital in some cases for ambulances.*
- *Moreover, a large population of India use Google maps on a daily basis to steer clear of traffic, so using a platform like Google Maps we will be able to reach and help a large section of the population.*



# THANKYOU