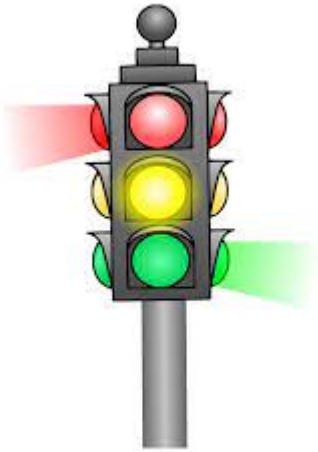
WELCOME

TRAFFIC LIGHT CONTROL SYSTEM



PRESENTED BY : RITHIK RAJ KP

ROLL NO : 44

REG NO : 20022035

DEPARTMENT : MECHANICAL ENGINEEERING,MS5

INTRODUCTION

- Traffic jam is the major problems in densely populated city like Mumbai cities.where as its population and number of running vehicles are much more than its copacity
- The normal function of traffic system is to control coordination to ensure that traffic moves as smoothly and safely as possible
- Traffic lights are the signaling device that are placed on the intersection points and used to control the flow of traffic on the road

HISTORY OF TRAFFIC LIGHT CONTROL SYSTEM

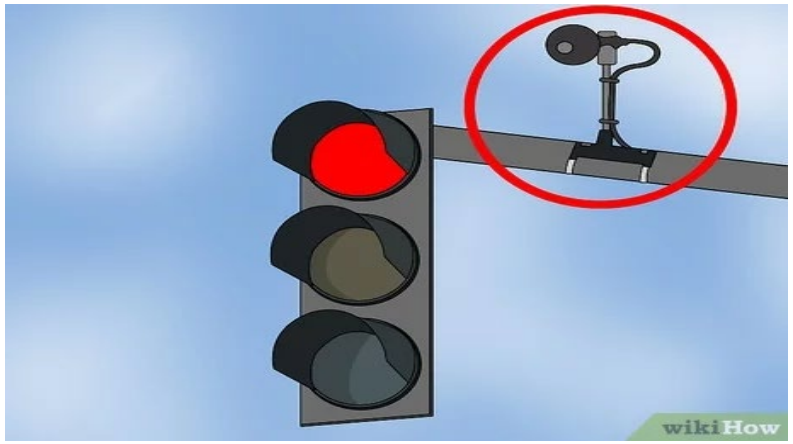
- The world's first electric traffic signal was put into place on the corner of Euclid avenue and east 105th street in Cleveland,ohio, on august 5,1914
- There have been various competing claims regarding who was behind the world's first traffic signal

TYPES OF SENSORS IN TRAFFIC LIGHT CONTROL SYSTEM

- Inductive-loop sensor
- Active infrared sensor

ACTIVE INFRARED SENSORS

Active infrared sensors emit low-level infrared energy into a specific zone to detect vehicles. When that energy is interrupted by the presence of a vehicle, the sensor sends a pulse to the traffic signal to change the light



INDUCTIVE-LOOP SENSORS

- Inductive-loop traffic detectors **use an electrically conducting loop embedded in the pavement to send a signal to the traffic control system to indicate the presence of a vehicle**.

THEORITICAL CONTENT

ADVANTAGES

- Traffic control signals provide for an orderly movement of traffic.
- They help in reducing the frequency of an accident of some special nature i.e. of right angles accidents.
- They intercept heavy traffic to allow other traffic to cross the road intersection safety.
- They provide authority to the drivers to move with confidence.
- They control the speed of vehicles on main as well as on secondary roads.
- They direct traffic on different routes without excessive congestion.
- The provide economy over manual control at the intersection.

DISADVANTAGES

- Traffic control signals may result in a re-entrant collision of vehicles.
- They may cause a delay in the quick movement of traffic.

TYPES OF SENSORS IN TRAFFIC LIGHT SYSTEM

- Inductive-Loop sensors
- Infrared sensors

LIMITATIONS

FUTURE ADAPTATION AND DEVELOPMENT

APPLICATIONS

CONCLUTION

REFERENCES

- https://youtu.be/DP62ogEZgkI
- https://youtu.be/b-9vBtwrBwM

THANKS