

OBJECTIVE OF THE PROJECT

1. To provide a better traffic management system that avoids people to perform signal jumping thereby reducing risk of accidents and save lives.
2. To provide a reliable system that saves time, money and fuel.

Our goal is to develop a prototype which has the following features:

- Accuracy: To develop a better system which counts the vehicles accurately and work efficiently.
- Affordable: By using the devices known to people, the cost can be reduced.

CHAPTER 1

INTRODUCTION

The traffic lights in India are extensively used since 1980's. During this period the supply voltage needed to operationalize the traffic lights was 240V which was fed to sodium vapor lamps and the poles used were made of galvanized iron or steel which rendered a bigger threat to the commuters especially during rains and floods resulting in severe casualties.

During 1990's the advent of the advancement in the technology of traffic lights happened in which the LEDs and down counters were used to manage the traffic. In this advanced system the step-down transformer played a prominent role in stepping down the voltage from 240V to 12V and this was fed to the LEDs. This reduced dependency of voltage to just 12V to manage the traffic lights made the entire system simple, easy to use, and highly reliable.

In this present system of traffic management the traffic lights are made to operate automatically depending on peak hour schedule .e, morning, afternoon, evening and nights of traffic. But in crowded areas much of the traffic is regulated through personal means.

The drawback with the present system is due to the processor installed with the in-built program whose functionality would remain uniformly same at times when there is no traffic on roads. The consequence of the drawback would be evident in the below cases:

1. The signal to remain GREEN for reasonable seconds when actually there is no traffic at all to pass through. This is unwanted and unnecessarily makes the other road users feel waste of time and go impatient.
2. The signal to remain green only for the programmed numbers of fixed seconds even though it is insufficient as some times the traffic density could be high.

This present system fails to sense and gauge the actual traffic density and these problems are common to see everywhere.

The advanced regulation of traffic helps individuals to save time and reduce accidents. Conventionally the traffic violations of traffic rules is a major problem not only in metropolitan cities but also in sub-urban areas.