

Abstract Document

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Theme Name: Smart City (software)

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Idea and innovation:

Smart Traffic Lights:

In any city or town the most common problem faced is traffic management. Due to the increasing number of vehicles in the country it is becoming more and more difficult to manage traffic .

One of the most important devices for traffic management are traffic lights.

The traffic lights which are in use are not smart and they have to be manually set to a specific time . The time is set by studying the traffic flow in the area where the traffic light is located. The main drawback of this is that in times when there is unexpected traffic in the area traffic is not handled in an appropriate way.

Smart Traffic Lights can be a great solution to this, these traffic lights work by detecting the number of cars standing on the signal and determines the amount of time it should stay green and the amount of time it should stay red. The detection of car is done with the help of cameras which are placed at every traffic signal, these cameras monitor both side of the traffic signal and send the data to the computer where with the help of a trained **object detection model** the total number of cars on each sides are detected and appropriate signal is passed to the respective traffic light.

Implementation:

Large scale implementation of the smart traffic lights is possible and can be done at a very minimum cost as the infrastructure is already in place, traffic lights and cameras are already mounted on every signal. The only need of modification required is to make a server to run the software which will detect the cars and send appropriate readings to the traffic lights .

Potential Customers :

- Municipal Corporation of every city.
- Big Townships.