STUDENT ID:1329322

ABSTARCT

This report contains 6 chapters;

The First Chapter gives an outline of how the traffic lights timings are controlled and adapted according to density by the use of sensors, these sensors will categorize the vehicle's into different speed categories and take count of vehicles before and after a junction. After categorizing and counting, the traffic density can be obtained and by using a logic, the traffic will be dispersed accordingly.

In the Second Chapter similar projects will be explained and it will show how some of their ideas are implemented into this project as well.

In the Third Chapter the Density Based Traffic Light System is explained, it will also show the project can be implemented to a three-way and four-way traffic intersection, which are two most common traffic light intersections that can be found anywhere.

The Fourth Chapter explains how this system will be modified and implemented into a model.

The Fifth Chapter explains about all the tests carried out in the model. From the test results obtained it can be seen that categorizing speeds of vehicles before and after an intersection will successfully be able to control traffic lights timings within a quick response time and how priority among lanes will be stated.

The Sixth Chapter points out the difficulties that came across when testing, features/modifications that can be implemented to the system from the prototype, improvements that can be made for both the prototype and whole system. The Sixth Chapter will also explain how the society is benefited and the impact the environment will face after implementation of the Density Based Adaptive Traffic Light System.