**C222**

**Effectiveness of stop sign control at an intersection**

Our traffic environment is getting more and more complex day by day. As a result of increased number of vehicles, Problems such as congestion on roads and delays at intersections are arising. Though we need wider roads it is not possible to construct them due to lack of space and funds. The possible solution is to implement suitable traffic management measures improve the capacities f existing roads and intersections. The main objective of this project is to find out the effectiveness of the Stop Sign control method, which is an economical and widely used intersection control measure for low and moderate volume so traffic for Sri Lankan conditions.

As not much literature available on this subjects in Sri Lanka, a simulation model was developed to represent different traffic flows patterns at an intersection and determine the delays and queue lengths thereby identify the situation for which a stop sign would be appropriate.

Surveys were carried out to understand the traffic patterns and driver behavior at controlled and uncontrolled intersections. This information was used to derive parameters that are needed for the simulation. By analyzing different traffic flow conditions effectiveness of introducing a stop sign at an intersection is evaluated. It is found that the driver behavior at controlled intersection is significantly different from the assumptions that have been used for driving theoretical queuing models.