**Research Question**

The goal of the project is to observe the behavior of the vehicles when information of an obstacle is shared to avoid traffic.

**Introduction**

We are implementing a multilane traffic scenario with different vehicles. The lane will have an obstacle that causes traffic, through which the vehicles will coordinate to reach passing the obstacle.

**State of the Art**

* Gipps Model
* Psychophysical Model
* Cloud based communication
* V2X communication
* Sensors for collision avoidance

**Methods**

We are using ROS with Stage simulator so that we can focus on the development of the various traffic situations. As in ROS we can find the models for the hardware such as laser scanner, ultrasonic sensors, etc. which are used in vehicles and is readily available for ROS.

The problem is split into main three parts, such as modeling of the world, the vehicle, and traffic scenarios.

The vehicle model will consist of the dynamics of real vehicle aptly scaled for simulation so that the results shall be realistic.