

Abstract

Traffic Flow is a system on land transportation that allows the vehicle to run in accordance with the path that has been determined to go to a certain place. Thanks to human transportation it is easier to move from one place to another. There are several types of transportation ranging from land, sea, and air. But the problem is more common in transportation, especially on land, the problems of traffic jams and traffic accidents.

The Gipps Model is one of the models in the traffic flow in Car-Following Models. Various models were developed with the aim of representing how the driver reacts to changes in the speed and position of the follower vehicle and the leader vehicle. In this research, a simple simulation has been developed that represents the Gipps model. Then the results of the simulation will illustrate how the change in vehicle speed follower to change the vehicle leader's speed in the form of an animated curve.

From the results of tests that have been done, follower vehicle speed to leader vehicle in all three scenarios changed before the 5th seconds and the condition of the follower vehicle start stable along with the leader vehicle until the iteration is completed. With simulated models of this vehicle, is expected to be a solution to reduce the problems in traffic.

Keywords : Traffic Flow, Car-Following Models, Gipps Model.