

## **ABSTRACT**

*Road traffic selection applications on smart phones and vehicles use the shortest route algorithm without considering the traffic density. On the other hand the current applications get traffic density data from the GPS feature on the smart phone riders. Though not necessarily all riders activate the GPS feature. In addition, the route selection application on the vehicle only features route selection only. Although the vehicle is installed GPS device, in case of loss then the owner of the vehicle can not track the existence of the vehicle.*

*To overcome the above problems, then made an Android application that is able to find the fastest route by considering the density of traffic, get traffic density data from the average speed of vehicles that have been installed GPS devices, and track the missing vehicle. To realize the highway traffic density monitoring, each vehicle must be installed GPS device so that the data traffic density obtained is data that is sure and real-time.*

*This final project generates an application and database that is being built with GPS and server that in testing the functionality and implementation, the success rate of functionality on each activity and database is 100%. Can be concluded application and database can function well.*

***Keywords: Android, Java, GIS (Global Information System), Latitude and Longitude, Route, Tracking..***