

ABSTRACT

Indonesia is one of the countries with a high population. The high population affects transportation needs, especially on the main road. The main roads in big cities in Indonesia, such as Jakarta, Bandung, and Surabaya always occurs a traffic jam. Traffic jam on the main road of course spend a lot of time, energy and mind. Alternative path is a solution to avoid traffic jam.

At this final project, Android -based applications created using GIS that can be used to find out information about road conditions, whether there is a traffic jam or not. This application can work well when a lot of people who install the application. This application must be connected to the internet and also have an active GPS. This application works by providing information through the traffic conditions or whether the speed of other vehicles. At the time the application is active , the location where the user is located and speed going into the database , then the location and condition of the streets will be displayed on the maps with colors representing the road conditions . The red color indicates the condition of roads which having a traffic jam, yellow color shows the crowded road conditions and green colors indicate the condition of the roads are not crowded and will provide high smoothness in driving. It will continue to take place, because this app will be updated every 45 seconds.

Result of this final project is helping users determine the condition of the highway jammed streets. It has been tested for five cell phones that have this application installed, and the system works well. To measure the level of success, MOS (Mean Opinion Score) is used based on the opinions of 30 people who try to use this application. From these measurements it can be concluded that this application can help users to determine the condition of the road, so that drivers can seek an alternative way to arrive at the destination.

Key Words: Application, android, speed, traffic, maps