

Abstract of Presentation

Presentation Title:

Apply Multimedia Communication Devices to Transportation System in Viet Nam

Abstract :

Vietnam is a developing country. We have to face with many problems, one of which is transportation system. Problems associated with transport are traffic congestion, traffic accident, tracking vehicles and so on. To reduce these problems we propose to apply multimedia communication devices to transportation system in Vietnam. These devices include On Board Unit (OBU) device on vehicles, Road Side Unit (RSU) device on road side and Management Web Server. They use GSM/GPRS and adhoc network to connect each other.



These devices support to monitor vehicles on the road using GPRS, GPS systems. Position and speed of vehicles are sent to server. An administrator can view the information of each vehicle as well as seeing the traffic photos taken by the

roadside monitoring devices. From this information, the administrator can determine the current traffic, the violable devices or congestion. And they can predict traffic trend in the near future. Keeping track of the location information of vehicles also helps transportation companies know the current location of their vehicles, capture the vehicles' route and speed. Besides, in order to making circulation more convenient, the software running on the moving device (OBU) is integrated some extended functions such as navigation, path search, place search, the nearest petrol station search and so on.

These devices also support to share information between vehicles on the road. The vehicles setup adhoc network model themselves and they share photos, files, documents, voice and so on.

Because of budget and time constraints, this application was tested in Hanoi University of Science and Technology campus. The results of these tests were quite good and stable.