VANET based Real-Time Intelligent Transportation System

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Authors:

Pallavi A. Targe, M. P. Satone

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Abstract

Due to the rapid growth in the field of Vehicular Ad-hoc Networks (VANET), they are being used for various applications. Intelligent Transportation systems (ITS) are one of the most important applications of VANET which consist of Vehicle-to-vehicle and vehicle-to-infrastructure communications based on wireless local area networks. Traffic accidents and congestion problems are increasing day by day. Transportation sector is significantly stressed, because of vast number of vehicles on road leading to more accidents and fatalities, adverse environmental and economic impact. Intelligent Transportation Systems is one of the solutions to all these problems, which will help to minimize traffic related problems to a great extent and can make our life easier. This paper gives an overview of past few techniques in this field and presents a real–time intelligent transportation system based on VANET. Proposed system is based on RFID and ARM controller to minimize traffic congestion with proper signal control, and then with the help of android mobile application, path planning will take place to provide vehicles with suitable path having minimum traffic to their destination. Proposed system can help to avoid congestion and can find better routes by real time data. This saves both time and fuel and has
significant economic advantages.

References


Index Terms

Computer Science
Networks

Keywords

ITS, VANET, RFID, ARM, signal control, android mobile application, path planning.