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Authors:

B.Karthikeyan

M. Tamileniyan

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**Abstract**

The Intelligent Speed Adaptation in vehicles using GPS technology is a method of speed adaptation in vehicles based on its position on the highway. The position can be recognized using the GPS receiver. The main objective is to make the system simple. The Toll gates on the highway are equipped with a transmitter that transmits a very small data to the receiver system in the vehicle. The received data carries a table of information with the latitude-longitude and its speed limit. As soon as the system receives the signal, the system starts operating; the system checks the latitude longitude data with the current position. When the system reaches the position, the controller informs the driver about the speed limit and also limits the speed of vehicle to the speed limit levels. Simultaneously the second data is taken from the received data and checks for next position and so on, till the last data. After the given data is executed, the next toll gate will be approaching for the speed limit patterns till the next tollgate. This system

reduces usage of memory that is used for storing large map information, also reduces the cost of implementation in vehicles.

### Reference

- N. Agerholm,R, Waagepetersen,N. Tradisaukas,and H. Lahrmann 2008 - IEEE Intelligent Vehicles Symposium “Intelligent Speed Adaptation in Company Vehicles”
- Riaz Sayed, Pierre Delaigue, Jeremy Blum, Ali Mortazavi and Azim Eskandarian 2007-SAE TECHNICAL PAPER SERIES “Development of an Intelligent Multimode Speed Adaptation System”
- Georgiy Pekhteryev, Zafer Sahinoglu, Philip Orlik, and Ghulam Bhatti 2005 - MITSUBISHI ELECTRIC RESEARCH LABORATORIES ”Image Transmission over IEEE 802.15.4 and ZigBee Networks”
- Dr.S.S.Riaz Ahamed-2008 -Journal of Theoretical and Applied Information Technology “The role of ZigBee technology in future data Communication system”
- Marko Hannikainen, Timo D. Hamalainen, Markku Niemi, Jukka Saarinen Computer communications “Trends in personal wireless data communications”
- Jesus Tellez Isaac, Jose Sierra Camara , Sherali Zeadally , Joaquin Torres Marquez-March 2008 Computer communications. “A secure vehicle-to-roadside communication payment protocol in vehicular ad hoc networks”
- European Road Safety Observatory “Intelligent Speed Adaptation (ISA)” [http://www.erso.eu/knowledge/content/04\\_esav](http://www.erso.eu/knowledge/content/04_esav)
- University of Leeds and MIRA Ltd. - January 2006 “Intelligent Speed Adaptation Literature Review and scoping study”-<http://www.tfl.gov.uk/assets>
- H. Labiod, h. Afifi, c. De santis – Springer publications – “Book on Wi-Fi, Bluetooth,,ZigBee and Wimax”
- Shahin Farahani - Elsevier publications “ZigBee Wireless Networks and Transceivers”
- ZigBee product descriptions “XBee product manufacturer – Digi International.” <http://www.digi.com/technology/rf-articles/wireless-zigbee.jsp>

### Index Terms

Computer Science

Embedded Systems

### Key words

ZigBee

Dynamic Data

Speed Adaptation

