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International Journal of Computer Applications

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Volume 90 - Number 11

Year of Publication: 2014

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10.5120/15762-4440

{bibtex}pxc3894440.bib{/bibtex}

Abstract

VANETs are composed of a number of vehicles moving on city roads, able to interconnect with one another without a fixed infrastructure. Improvisation of a new vehicular communication system should entitle a node to travel safely with high speed mobility while maintaining seamless interconnectivity. To evaluate the impact of mobility models such as FTM, IDM, IDM-IM and IDM-LC on VANETs routing protocol, VanetMobiSim is introduced to design a realistic vehicular mobility model for an urban scenario of Dhaka city. The experimental results suggest several issues e.g. lower packet drop rate, delay, jitter and route cost, etc are required to be considered before preparing a realistic application of VANET. The simulation results have been measured by different performance metrics such as drop, delay, jitter, round-trip time, throughput, route cost and mean hop etc.

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Computer Science

Index Terms

Wireless

Keywords

VANET; AODV; AOMDV; DYMO; OLSR; FTM; IDM-IM; IDM-LC; IDM; IEEE 802.11p