Abstract

The vehicular movement is very versatile in nature and produces a lot many movement patterns on the roads followed by the individual vehicle or group of vehicles. The vehicular networks are constructed in order to collect and share the information to and from the vehicles across the given area. The urban traffic management is the major source of the congested traffic pathways. Hence, the urban traffic requires the better management to avoid the traffic jams or snarls across the city highways. In this paper, we have proposed the method to detect and prevent the collision in the urban traffic by utilizing the distance based hurdle evaluation modules. The proposed model is equipped with several factors for the collision detection along with several movement pattern combinations. The proposed model is based upon the multiple...
active distance factors for the position evaluation of the other vehicular nodes or obstacles in the VANET cluster. The experimental results have been obtained in the form of various performance factors. The robust performance has been recorded for the proposed model in the form of End-to-End transmission delay, packet loss, number of hello messages on RSU and vehicles.

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Adaptive Collision Detection and Avoidance Mechanism for Urban Traffic Management


Index Terms

Computer Science Information Sciences

Keywords
Collision Detection  Collision Avoidance  Multiple Active Distances  Euclidean Distance