VANET-based Vehicle Priority Scheduling System at Multi Intersection

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Abstract

Vehicular travel is increasing throughout the world, particularly in large urban areas. In such circumstances, traffic congestion is one of the leading causes of lost productivity and decreased standard of living in urban settings. Trying to switch on modern technologies and tools for managing and controlling traffic in the field of transportation and traffic engineering is undeniable. Recent advances in VANET suggest vehicle navigation and traffic scheduling by Vehicular Communication will be finest solution in the near future. Emergency vehicle traffic signal priority systems allow emergency vehicles such as fire and emergency medical vehicles to request and receive a green traffic signal indication when approaching an intersection. We presents adaptive traffic signal control system witch support priority strategy for emergency vehicle operations in urban roads based on Vehicular Ad hoc Networks. The main purposes in this paper are analysis challenge in previous works and cover their weaknesses and presented a more efficient mechanism to evacuation of the intersections of origin to destination when passing emergency vehicles order to improve safety and efficiency. The simulation results showed the proposed system can significantly improve the traffic situation like average delay of vehicles and enhance safety and performance parameters of emergency vehicles.

Keywords: VANET, ITS, Intelligent Vehicle Control, Emergency vehicle.

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