Reactive traffic-aware routing strategy for urban vehicular environments

Abstract:

In this paper, we propose a Reactive Traffic-Aware Routing Strategy (ReTARS) for real-time urban vehicular environments that makes dynamic routes to avoid unnecessary and dead-end routes. ReTARS leverages prior global knowledge of real-time vehicular traffic to create paths between each vehicle. In ReTARS, the critical decisions are taken by decision making node at intersections which is based on prior global knowledge of real-time vehicular traffic. The simulation results in urban environment for with and without obstacles scenarios show that the ReTARS has better performance as compare to some existing VANET routing protocols in terms of packet delivery ratio, average delay, and hops count.