Comparative Study of Ad Hoc Routing Protocols in Vehicular Ad-Hoc Networks for Smart City

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Abstract : In this paper, we perform the investigation of some routing protocols in Vehicular Ad-Hoc Network (VANET) context. Indeed, we study the efficiency of protocols like Dynamic Source Routing (DSR), Ad hoc On-demand Distance Vector Routing (AODV), Destination Sequenced Distance Vector (DSDV), Optimized Link State Routing convention (OLSR) and Vehicular Multi-hop algorithm for Stable Clustering (VMASC) in terms of packet delivery ratio (PDR) and throughput. The performance evaluation and comparison between the studied protocols shows that the VMASC is the best protocols regarding fast data transmission and link stability in VANETs. The validation of all results is done by the NS3 simulator.