

Enhanced Cluster Based Connectivity Maintenance in Vehicular Ad Hoc Network

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Abstract : The demand of Vehicular ad hoc networks is increasing day by day, due to offering the various applications and marvelous benefits to VANET users. Clustering in VANETs is most important to overcome the connectivity problems of VANETs. In this paper, we proposed a new clustering technique Enhanced cluster based connectivity maintenance in vehicular ad hoc network. Our objective is to form long living clusters. The proposed approach is grouping the vehicles, on the basis of the longest list of neighbors to form clusters. The cluster formation and cluster head selection process done by the RSU that may results it reduces the chances of overhead on to the network. The cluster head selection procedure is the vehicle which has closest speed to average speed will elect as a cluster Head by the RSU and if two vehicles have same speed which is closest to average speed then they will be calculate by one of the new parameter i.e. distance to their respective destination. The vehicle which has largest distance to their destination will be choosing as a cluster Head by the RSU. Our simulation outcomes show that our technique performs better than the existing technique.

Keywords : VANETs, clustering, connectivity, cluster head, intelligent transportation system (ITS)

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