

## Improved Geographical Routing in Vehicular Ad Hoc Networks

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### ABSTRACT

Vehicular Ad Hoc Networks (VANET) has emerged to establish communication between intelligent vehicles. The high mobility of vehicles and existing of obstacles in urban area make the communication link between vehicles to be unreliable. In this environment, most geographical routing protocols does not consider stable and reliable link during packet forwarding towards destination. Thus, the network performance will be degraded due to large number of packet losses and high packet delay. In this paper, we propose an improved geographical routing protocol named IG for VANET. The proposed IG incorporates relative direction between source vehicle and candidate vehicles, distance between candidate node and destination and beacon reception rate in order to improve geographical greedy forwarding between intersection. Simulation results show that the proposed routing protocols performs better as compared to the existing routing solution.

**KEYWORDS:** V2V communications; Geographical routing; Greedy routing; Link reliability; Link stability

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