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On Mitigating Hop-to-Hop Congestion Problem in IoT Enabled Intra-Vehicular Communication

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***Abstract*—Internet of Things enabled Intra-Vehicular Network (IVN) refers to the network where large number of sensors are connected with each other for sharing the vehicle's status information in order to develop a smart vehicular system. The number of sensor nodes in the vehicle has increased significantly due to the increasing vehicular applications. The phenomenon of congestion poses a problem in the IVN where the traffic load and number of sensors are increased. This problem can be resolved by mitigating the limitation of the existing Media Access Control (MAC) protocols. In this paper, we address this issue and proposed a MAC strategy for solving this problem in this network. Furthermore, we discuss the design of IVN scenario and the performance is evaluated in terms of end-to-end delay. The simulation results reveal the effectiveness of our proposal.**

***Keywords*—Internet of Things (IoT), MAC Strategy, Congestion Problem, Intra-Vehicular Networks (IVNs).**

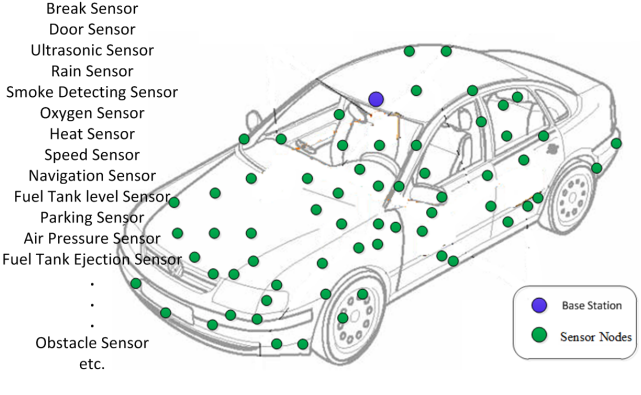

Fig. 1: IoT Enabled Intra-Vehicle Networks