

ABSTRACT:

The purpose of this study is to propose a new congestion control framework for uni-priority of event-driven safety messages in VANETs. The uni-priority congestion is caused by the traffic of the same priority. Many of event-driven safety applications developed for VANETs is required real-time communication with high reliability and must be delivered before certain time deadline. In high load traffic, the CCH communication channel easily congested. Many studies [2,10,11,12] recommended congestion control approach to control the load and congestion on the wireless channel in VANETs. Our proposed congestion control will reserve the CCH communication channel for event-driven safety messages if the number of safety messages in the queue exceeds a defined threshold or the congestion control detect event-driven safety message. In normal traffic, the CCH communication channel is not reserve for event-driven safety messages. This research will adapt priority-based Earliest Deadline First (EDF) scheduling algorithms in proposed congestion control to schedule uni-priority of eventdriven safety messages. In addition, to provide reliability performance for event-driven safety messages, we will develop a new rebroadcasting scheme to prevent broadcast storm. In next phase of study, we plan to test and evaluate performance of our congestion control approach using network simulator e.g. NS-3.