CHAPTER 6. CONCLUSION AND FUTURE WORK

Vehicle-to-vehicle communication is the forthcoming leading concept in wireless communication which may be known as internet of vehicle (IoV). We have designed an architecture with multi-hop broadcast protocol, a solution to practically implement in vehicle-to-vehicle communication scenario. This solution also gives low cost testing compared to $60, 000 invested in a project [22] for testing at Los Angeles in 2011.

The important part of this work is the utilization of a transmission range estimator, through which each vehicle becomes aware of how far each message will go and hence able to compute its own probability in becoming the next forwarder. Estimated actual values of dynamically computed transmission ranges of cars are used to minimize the number of hops to be propagated during the broadcast activity. We analyze the performance of REMBP under different parameters to check the reliability of message delivery. Results confirm that broadcasted messages reach the interested area end with reduced delivery time.

In [78], Hameed et al mentioned delivery time ≤200ms for cooperative traffic applications and ≤500ms for infotainment we have achieved the requirements as shown in Table 6.1. Our simulation study suggests that standard throughput is nearly 3 to 6 Mbps and we get 3.2 Mbps, standard message delivery fraction should be one and we are having it near to one.

Table 6.1: Final parametric comparison

Parameter	**PIVCA**	**Proposed architecture**	**Standard value**
Throughput	2987.09 Kbps	3187.98 kbps	3-6Mbps
Delivery time	181ms	158ms	≤200ms
Message delivery fraction	0.9102	0.9895	1

In near future one android application with best possible features can be designed. It can be launched first with 108 ambulance service in Gujarat. Also, this is a simulation; and real test bed is much expensive, so we are going to write a proposal to DST/GUJCOST for real test bed implementation including vehicle to infrastructure (V2I) communication to get real Intelligent Transport System (ITS).