CHAPTER 9

FUTURE SCOPE

The future work can focus on an analytic model to study the impact of the proposed delayed acknowledgement scheme on TCP performance, taking into account packet size, wireless medium contention, bandwidth and so on. Such a model will give more insight and justify the parameter selection for delay window size adaptation in TCP-DA and TCP-SA aside from simulation results alone.

Furthermore, TCP-DA is mainly a receiver-side modification and so it can be combined with sender side modifications to achieve better performance, such as the interaction between sender’s RTO calculation and receiver’s delayed ack. It is also worthwhile to integrate it with other mechanisms to improve TCP performance in wireless networks. The performance of all the existing algorithms deteriorates for increasing numbers of flows. The research can be extended to device new methods to improve performance in this case.

Mobile nodes make the topology of the network dynamic in nature and they communicate via wireless links. As there is a natural tendency of more link breakage in an ad hoc environment, TCP misinterprets the losses due to link failure as congestion losses. This thesis proposed a procedure which reduced the number of acknowledgments, estimated the link breakage
in prior using the strength of the node signal to improve the performance of the system in terms of throughput and end end delay. There also a need is need to find new routing algorithm to minimize the link breakage for the node efficiency.

Here the ECCPBM protocol mechanism has been implemented. It has many advantages as well as disadvantages. The disadvantage is that if by any means the intermediate nodes fails or link, then the packets will come to this point and will be dropped or heavy congestion will occur at this point. So it is necessary to find an alternative path by the algorithm so that no failure occurs and the congestion can be controlled.

The node life time and the link life time evaluation and utilizing the dynamic nature, such as the energy drain rate and the relative mobility estimation rate of nodes. A novel stability metric based on the residual link lifetime concept that maximizes (minimize) the joined link-stability energy metric is based on node selection with higher link duration when a higher weight is given to the stability index and a higher residual energy is given to energy aware index, to reduce the time constraint and to increase the performance. so there is need to propose an advanced algorithm to maintain and extend the node life time.