

CHAPTER 7

CONCLUSION

7.1 INTRODUCTION

Finally, the proposed routing scheme called Designing Simulation framework for Multi hop routing in Wireless sensor Network, significance and its robustness using various routing protocol has been discussed and an abstract view of future research related to the context of this thesis was paragraphed. The main perception on the view of this research is to propose an optimal solution for the information routing problem in wireless sensor networks. The main contribution is achieved in the protocol entitled Analysis of Shortest Route for heterogeneous node in Wireless Sensor network, using circular pattern with VORONOI diagram.

The main key idea achieved 73% accuracy in both the heterogeneous and homogeneous sensor nodes. Then the key idea is enhanced in the next attempt with an enhanced level protocol by Designing Simulation framework for Multi hop routing in Wireless sensor Network using PSO algorithm. Here the key idea achieved a quite bit deviation than the previous attempt. The next level of enhancement is subjected to reduce the computational complexity in the context of fast processing in information view and information routing.

The newly proposed protocol CBR-Contour Based Routing in Multi Hop Wireless Sensor Network, the main motto of the work is to transfer the data reliable in context to robust delivery of data transmission without degrading network performance (fast processing).

Hence by the final claim that the CBR has high compatibility and reliability over data transmission and finding optimal path based on contours had achieved. The proposed scheme achieves the better performance than the existing protocol, since the node discovery and root node identification at contour level was still a challenging deal in WSN.

7.2 CONTRIBUTION OF THE WORK DONE

The high light of the work is concluded by analyzing the routing and its performance of the proposed protocols along with their stipulated results. The results show the actual demonstration and efficacy of the protocols in terms of throughput. According to the observation the CBR protocol supports n number of base station by its reliable propagation of data and each circuited network is analyzed for its delay along with its jitter and bandwidth. The uniqueness of the research in analyzing the routing performance was the optimality of the Hop and its path value is counted in the given topology which yields better results. The screen shots of the performance metrics and actual working model evaluation for the proposed protocols are compared and updated in the Figure 6.4. Various contributions is added in various proposed models which are listed below

- An optimal solution for information routing using circular patterns in the form of Voronoi cell. The key idea behind the contribution is about each functional patterns of the traffic are classified as source and destination in asymptotic rule. Network load is monitored using the traffic inbound rules and the estimation is defined in the circular pattern in the form of Voronoi cell. Each sensor nodes traffic is redirected to the centralized server. Each traffic patterns and sensor nodes are classified and the nodes communication regions are known to the base station by drawing the pattern in Voronoi. The proposed methodology is main aspect of the proposed hypothesis which outperforms in information routing for both the homogenous node and heterogeneous nodes.
- A new framework aiming to reduce the software complexity in terms of routing without sacrificing the performance of the network. Since the sensor nodes are connected with base station. In the proposed research the neighboring node information is considered and maintained, which helps in packet forwarding in frequent intervals when the nodes are in wireless mode. Here, in the proposed research model, the nodes holds the neighbour information and relay the next hop information in straight line, hence it is rechecked to next – hop relay. This increases the routing strategy in terms of performance, reliability and guaranteed delivery.
- A new scheme called CBR is proposed, here the routing scheme is one of the vast advent where the data packets inter arrival was calculated periodically for every hop. For every instance the

boundary or contour of the network is evaluated which in turn gives an optimality in terms of finding the shortest contour within the circular boundary of network.

7.3 FUTURE RESEARCH

In future, the work model for closed neighbour discovery in the form of centralized analytical model to determine with all necessary routing parameters like deviation value, route path value, and local entity value will be considered. The Multi path routing scheme is likely to be built for ubiquitous sensor networks. A novel hybrid routing protocol (merging two optimal routing protocols) in terms of routing performance with neighbour node identity and root node identity is likely to be implemented for heterogeneous sensor networks. A detailed comparison analysis based on hybrid schemes on the routing protocols is to be performed.