



## **ADAPTIVE ROUTING IN WIRELESS NETWORKS**

**K.Pushpa Latha<sup>1</sup>, K.Dayakar<sup>2</sup>, G.Charles Babu<sup>3</sup>**

<sup>1</sup>M.Tech Student, Dept of CSE, Holy Mary Institute of Technology & Science, Keesara,  
R.R Dist, A.P, India

<sup>2</sup>Assistant Professor, Dept of CSE, Holy Mary Institute of Technology & Science, Keesara,  
R.R Dist, A.P, India

<sup>3</sup>Professor & HOD, Dept of CSE, Holy Mary Institute of Technology & Science, Keesara,  
R.R Dist, A.P, India

### **ABSTRACT:**

Here in the present strategy there is a transmission of the data in the form of the packets takes place. Therefore there is a transmission of the data takes place in the reliable fashion respectively. Many of the users are very much attractive beyond this particular technology oriented aspect respectively. Therefore there is a transfer of the data in a efficient manner and also the reduced cost takes place in the system oriented scenario respectively. Here in the present method is designed with an well effective strategy where the design oriented architecture are in a particular framework respectively. Here in the present scenario network oriented ad hoc based phenomena based on the wireless oriented multi hop in a quite respective fashion takes place and the scheme is of the oriented fashion of the routing based on the opportunistic adaptive distribution oriented strategy takes place in a well effective manner respectively. Here the system is oriented with a particular design oriented strategy where there is an routing based on the opportunistic framework oriented strategy in a well effective manner in such a fashion learning based on the reinforcement oriented strategy takes place in the present system where if at all in the absence of the channel oriented strategy there the nodes based routing system must be effective where there should be an effective transfer of the data place in a quite effective manner respectively. Here with respect to the conditional oriented aspect whenever working with respect to the criteria based on the opportunistic framework oriented strategy in a well effective manner in such a fashion

Learning based on the reinforcement oriented strategy takes place in the present system where if at all in the absence of the channel oriented strategy there the nodes based routing system must be effective where there should be an effective transfer of the data place in a quite effective manner respectively. Here with respect to the conditional oriented aspect whenever working with respect to the criteria based on the reward packet oriented expected average based criteria plays a major role in the system where there is an opportunistic based phenomena plays a major role in the implementation of the system in the form of the optimal based strategy in a well efficient manner respectively. Experiments are conducted on the present method and the evaluation of the performance based strategy takes place in a well efficient manner respectively.

***Keywords: Wireless communication, Network oriented AD HOC, Network topology, Routing strategy, Adaptive transmission respectively.***

## **1. INTRODUCTION**

In order to overcome the several previous implementation followed by the failures oriented strategy there we are supposed to be designed a particular aspect related to the opportunistic based phenomena plays a vital role in the society in the form of the implementation based aspect respectively in a well oriented approach. By the motivation of the solution based strategy based on the classical routing oriented phenomena where the previous existing techniques play a constant role in the transmission of the data in a particular path that is a stipulated path where the transfer of the data in terms of the forwarding oriented strategy takes place in a well efficient manner respectively [1][2]. Therefore in

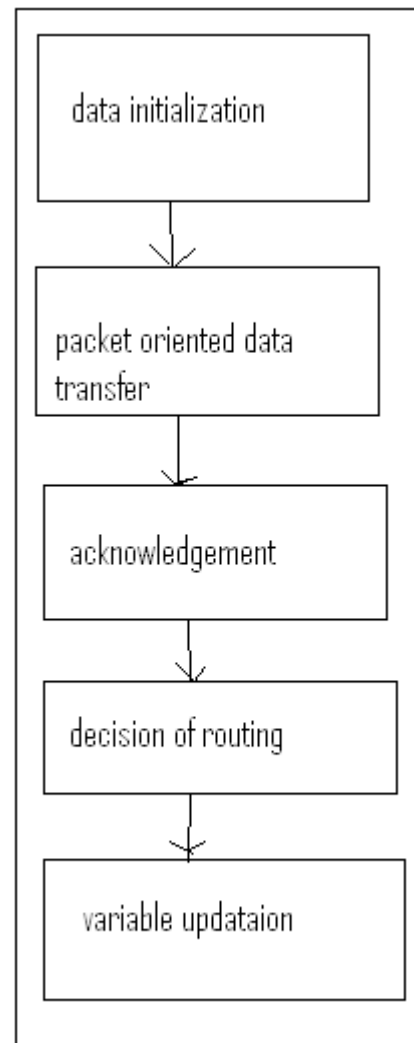
the scenario related to the communication base strategy related to the environment of the wireless based strategy there the fixed path allocation creates a severe problem in the system base aspect where by the fixed routing based scenario even in the time of the traffic oriented strategy then the route can't be changes then again there is a huge delay in the transmission of the data takes place quite efficient manner respectively [4][5]. Therefore there is a chance of the retransmission of the data occurs then there is a huge complexity I the system takes place effectively in a well efficient manner [3][6]. For that particular reason there is no effective with this particular strategy therefore there is a necessity of the implementation of the proposed

technique with an efficient outcome of the system takes place.

## 2. METHODOLOGY

In this paper a method is designed with an well effective design oriented framework based strategy for the accurate outcome of the system. Here the implementation of the present method is described in the below block diagram in an elaborative fashion respectively [7][8]. There is a huge challenge for the present method in terms of the implementation followed by the control of the degradation oriented performance in a well respective fashion. Therefore the designed method is implemented in an effective fashion where there is an accurate outcome in the entire system takes place [9]. In the present design oriented strategy there is an investigation of the problem oriented phenomena plays an efficient role related to the transfer of the data in the form of the multi hop based strategy in a well effective manner is a primary concern followed by the topology of the network based strategy in a well efficient manner. Here we finally conclude that the present method is efficient in term so the effective outcome of the system [10].

## BLOCK DIAGRAM

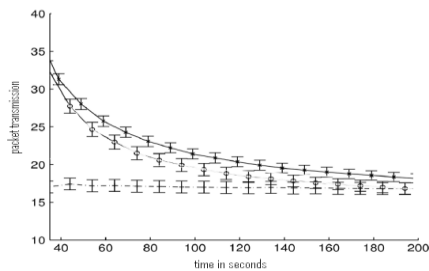


**Fig 1: Shows the block diagram of relay based acknowledgement respectively**

## 3. EXPECTED RESULTS

A lot of analysis has been made on the present method and a large number of the experiments have been conducted on the different data sets in a well respective fashion. A comparative analysis between the present method to that of the several previous existing techniques has been

displayed in the below graphical representation respectively. Here the present method is effective and efficient in terms of the implementation and also in terms of the performance based strategy respectively. Here the present method completely overcome the drawbacks of the several previous existing techniques in a well efficient manner in order to improve the accuracy of the system which may be helpful for the integration related to the real time scenario respectively.



**Fig 2: Shows the graphical representation of the comparison of the proposed technique respectively**

#### 4. CONCLUSION

In this paper a method is designed with an efficient framework for the effective implementation of the system rather better than that of the previous methods and in order to control the degraded performance followed by the effective analysis of the system in an accurate fashion respectively. Here a design oriented strategy is implemented by the help of the effective algorithm of

routing oriented opportunistic based on the adaptive followed by the distributed phenomena in a well respective manner and in simple it is called as the OR adapt D respectively. Where there should be an optimal performance when applied with respect to the null knowledge oriented phenomena in a well respective fashion followed by the orientation of the statistical analysis with respect to the order of the topology. As per the conditions related to the ideal phenomena the present designed method is effective in terms of the performance based strategy followed by the effective implementation of the system based on the concept of the phenomena of the centralized orientation and the topology of the network based phenomena in a well efficient fashion respectively. Here we finally conclude that the present method is effective in terms of the analysis followed by the performance is effective compared to the previous methods in a well effective fashion.

#### REFERENCES

- [1] J. N. Tsitsiklis, "Asynchronous stochastic approximation and Q-learning," in Proc. 32nd IEEE Conf. Decision Control, Dec. 1993, vol. 1, pp. 395–400.
- [2] J. Boyan and M. Littman, "Packet routing in dynamically changing networks: A

enforcement learning approach,” in Proc. NIPS, 1994, pp. 671–678.

[3] J. W. Bates, “Packet routing and reinforcement learning: Estimating shortest paths in dynamic graphs,” 1995, unpublished.

[4] S. Choi and D. Yeung, “Predictive Q-routing: A memory-based reinforcement learning approach to adaptive traffic control,” in Proc. NIPS, 1996, pp. 945–951.

[5] S. Kumar and R. Miikkulainen, “Dual reinforcement Q-routing: An on-line adaptive routing algorithm,” in Proc. Smart Eng. Syst., Neural Netw., Fuzzy Logic, Data Mining, Evol. Program., 2000, pp. 231–238.

[6] S. S. Dhillon and P. Van Mieghem, “Performance analysis of the AntNet algorithm,” *Comput. Netw.*, vol. 51, no. 8, pp. 2104–2125, 2007.

[7] P. Purkayastha and J. S. Baras, “Convergence of Ant routing algorithm via stochastic approximation and optimization,” in Proc. IEEE Conf. Decision Control, 2007, pp. 340–354.

[8] D. P. Bertsekas and J. N. Tsitsiklis, *Neuro-Dynamic Programming*. Belmont, MA: Athena Scientific, 1996.

[9] S. Chachulski, M. Jennings, S. Katti, and D. Katabi, “Trading structure for randomness in wireless opportunistic routing,” in Proc. ACM SIGCOMM, 2007, pp. 169–180.

[10] M. L. Puterman, *Markov Decision Processes: Discrete Stochastic Dynamic Programming*. New York: Wiley, 1994.