Abstract

Wireless sensor networks (WSNs) created by number of sensor nodes in order to sense and sending data from its enclosing atmosphere. The sensor nodes have limited computation ability, partial power and little memory size. In these networks, sensor nodes are needy on short power batteries to give their energy. As energy is a difficult problem in these networks. In this paper, first introduce secure and efficient bioinspired Cost-Aware Secure Routing (CASER) protocol by selecting cluster head and using genetic algorithm for transferring the data in sensor network and also provide a calculable security analysis on the proposed routing protocol. In this introduced bioinspired CASER protocol which provides good deal between routing efficiency
and energy balance, and much increases the lifetime of the sensor networks in all sides. For the random energy delivery, this analysis shows how can increase the lifetime and the total numbers of messages that can be send many times under the same assumption. In introduced bioinspired CASER protocol, group research show that it can produce a high message delivery

References

- Di Tang Tongtong Li Jian Ren and Jie Wu &quot;Cost-Aware SEcure Routing (CASER) Protocol Design for Wireless Sensor Networks&quot; IEEE Transactions on Parallel and Distributed Systems. 2015
- C. V. Swathi1, Mrs. Nagarathna2, &quot;Energy Efficient Routing Protocol with Secure Hash Algorithm for Multi Hop WSN,&quot; International Journal of Research In Science & Engineering Volume: 1 Special Issue: 2
- B. Sireesha1, G. TagoreSai Prasad2, &quot;an alternative secured and efficient routing strategy for wireless sensor networks&quot; (IJETER), vol. 3 no. 6, (2015)
- Mrs. S. Gowsiga, Dr. P. Senthil Kumar &quot;a review study of various routing protocols based on routing information update mechanism of mobile ad hoc networks&quot; (IJERA) International Conference on Humming Bird (01st March 2014)
- Salonee Mishra and Binod Kumar Pattanayak &quot;power aware routing in mobile ad hoc networks: a survey&quot; vol. 8, no. 3, march 2013.
- Junmo Yang, Kazuya Sakai, Bonam Kim, Hiromi Okada, and Min-Te Sun &quot;Cost-Aware Route Selection in Wireless Mesh Networks&quot;
- Roshni M. Bhave, Prof. Vijay Bagdi &quot;Recovery of Nodes Failure in Wireless Sensor Network Using CASER Protocol and DARA:Review&quot; Volume: 3 Issue: 2

**Index Terms**

Computer Science  

**Keywords**

Wsns  
Caser  
Routing  
Security  
Energy Efficiency  

Algorithms