Abstract

Wireless sensor networks consist of battery driven devices that contain limited energy resources. Due to the placement of sensor nodes in a hostile environment it is very difficult to recharge the batteries of nodes. So limited energy resource affects the lifetime of the network. Number of protocols has been proposed to reduce the dissipation of energy. This paper has proposed a novel rendezvous nodes based LEACH (RN-LEACH) by using the hybrid PSO-GA based inter cluster data aggregation. The hybrid PSO-GA based technique has improved the path selection between the sink and cluster heads to reduce the energy consumption of cluster heads in an optimistic manner. The results have clearly shown that the proposed technique outperforms over the available methods.

References

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**Index Terms**

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**Keywords**

Inter cluster data aggregation, Clustering, Mobility, Rendezvous node (RN), Energy efficiency, Network lifetime.