عنوان مقاله:

Reducing of energy Consuming in the Wirless sensor nets using clustering Protocol based on auto Organizing energies

محل انتشار:

دومین کنفرانس بازیابی تعاملی اطلاعات (سال: 1398)

تعداد صفحات اصل مقاله: 16

نویسندگان:

Meysa Shirmohamadi - *M.Sc. Student, Department of Computer Science, Ilam Branch,Islamic Azad University, Ilam, Iran*

Masoud Moradkhani - *Assistant Professor, Department of Computer Science, Ilam Branch,Islamic Azad University, Ilam, Iran*

خلاصه مقاله:

A large amount of energy in nodes of a Wireless Sensor Network (WSN) is consumed due to the inner-network communications. In this paper, an energy efficient routing algorithm is proposed which saves a significant portion of innernetwork communications energy. To do this, the proposed routing algorithm selects sensor nodes with higher residual energy, more neighbors, and lower distance from the Base Station (BS) as Cluster Head (CH) nodes. Then, it manages sensor nodes appropriately and constructs clusters such a way to maximize WSN lifetime and minimize average energy dissipation per each sensor node. To evaluate the proposed routing algorithm, various simulations have been carried out by using of MATLAB simulator. The proposed routing algorithm is compared to the previous proposed algorithms e.g., LEACH, DBS, and LEACH-C algorithms. Results of the simulations show that the proposed routing algorithm has been meliorate the WSN performance at least 65%, reduces the energy consumption of the WSN up to 62%, and improves the successfully delivered packet ratio by at least 56% as compared to the previous routing algorithms..

کلمات کلیدی:

Wireless Sensor Network; Cluster-based Routing Algorithm; Network Lifetime; Clustering; Cluster Head.

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