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Analysis of Genetic Algorithm for Effective power Delivery and with Best Upsurge

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Abstract

Wireless network is ready for hundreds or thousands of nodes, where each node is connected to one or sometimes more sensors. WSN sensor integrated circuits, embedded systems, networks, modems, wireless communication and dissemination of information. The sensor may be an obligation to technology and science. Recent developments underway to miniaturization and low power consumption. They act as a gateway, and prospective clients, I usually have the data on the server WSN. Other components separate routing network routers, called calculating and distributing routing tables. Discussed the routing of wireless energy balance. Optimization solutions, we have created a genetic algorithm. Before selecting an algorithm proposed for the construction of the center console. In this study, the algorithms proposed model simulated results based on "parameters depending dead nodes, the number of bits transmitted to a base station, where the number of units sent to the heads of fuel consumption compared to replay and show that the proposed algorithm has a network of a relative.

Keywords*: LEACH-GSA, genetic algorithm, dead nodes , upsurge*

1. Introduction

Distributed sensor system can certainly follow the area. In this system, unlike traditional wired system, on the other hand, reduce the installation, configuration and network configuration instead of thousands of meters of cable, on the other hand have only a small device, the size of the same coin. Wireless sensor networks are wireless sensors are spread out, and measuring by us to say that a group of a number of physical quantities or to the environment, such as temperature, sound, vibration, pressure, motion or polluting substances in different places [1]. Sensor Networks motivate used in military applications such as battlefield surveillance, to be developed. But now, using wireless sensor networks in the industry and many non-military purposes, such as monitoring and control of industrial processes, health monitoring, environmental monitoring, and applications for home care, smart home and traffic [2].

Except addition, one or more sensors, such as each network node is usually equipped with a radio transmitter (or other wireless communication devices), small and micro-power source (usually a battery) [3], [4]. Depending on the size of the entire sensor node packaging is a little sand is the microscopic parts of the nest is still under development. The network sensor access networks usually down (ad hoc network) is present, which means that each node is a multi-hop algorithm. (Many of the nodes and the central station is a package). Currently, wireless sensor networks, computing and communications are held numerous seminars and conferences active research each year in this regard. In this article we will have a considerable impact on reducing energy consumption algorithm communication will focus on the network. According to our research, direct transfer methods, and is not optimized for use in sensor networks [5], [6]. We Leach clustering protocol based on the proposal that we do not turn the head of the local pastries; Power is shared by all nodes. Scalability and reliability algorithm that provides local coordination and data transfer, reduce uses[7]. This algorithm reduces the energy consumption by a factor of [8]. Breakdown of life. Direct access to each node to send data directly to the transmitter. If the plant is small nodules, it takes a lot of energy network nodes and reduces life expectancy significantly. However, when the cells close to each other, this method is acceptable, and probably better. Least energy transfer nodes between nodes cells. Another way to make. The nodes in the group, which at each node is connected to the local station and the local station data to the public stations ultimately reach the hands of the users. When the low-energy cluster [9], [10]

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2. Literature Survey

In the Paper [8] routing multi path effect and streams studied treatment was wireless networks. Three criteria are used to measure the effectiveness of the network is the network bandwidth minimum requirements for the popular fairs and acceptable QoS bandwidth. Each of these criteria "show in any case in many directions and ongoing clinical trials without" multi-beam calculated route. The calculation of these measures, but if the level of protection for solving optimization model of these standards. In both cases, the comparison of these measures, it has been found that even "with multi-path routing to the fixed network can, wireless, or is not climbing twice." Moreover, showed in comparison to the two-state solution of the model "with ensures the help of multi-beam routing optimization model for a much simpler solution. The confrontation between the two forms of the above results were obtained.

a. Multi-way routing and distribution. You can use it to network efficiency, wireless and the use of complex algorithms and protocols plants prospects increase.
b. A multi-beam routing and power allocation optimization model reduces the complexity of flora.

Optimal size designation, a group shredding algorithms are tools online use, such as cultural model of cultural values of the results differ. Article [9], because the limited flexibility of wireless communication channels are divided into "large number of sensor nodes is a serious problem that collisions. packet collisions factors that increase latency end-end network throughout the plant. Collision nodes try to write an increasing number of pseudo miss the beginning of the end of the period. In this article, we describe a method which "graphics, network, increases network capacity XTC algorithm built, and the modified distance vector algorithm that makes up the crane, so that the delay is eliminated by the supply end area. XTC algorithm is one of the most realistic and practical control algorithm limits of the sensor. algorithms and many other algorithms have network nodes, the exact cause of its geographical neighbors day. this algorithm in difficult circumstances, called "wireless applications know it in this environment. In general, this algorithm gives three steps building all nodes in the network, the network, these three steps the development of others is a numbered list of the roadmap "to a network diagram each growing network. The results are shown in Figure 10, rate € the second package, respectively. than the actual size of the other two methods' weight issue is getting brighter.

Many search queries obligations tools to give advice. Working with minimal cost routing using some genetic PMX crossings to drive each population. Evaluation of the total population in the pretreatment liquid to obtain only results "has always been a part of the population." comprehensive research analysis to find the optimal solution for better targeting problem respectively15. The work I often temperature logarithmic function, leading to the best solution to this problem. [10] PMX operator routing problem of the junction caused by repeated time and characteristic of her equipment grows gradually logarithmic rate convergence algorithm of the search algorithm. Paper [11] a wealth of wireless network routing optimization and compression for maximum durability. They solve the problem, it was the evaluation function, which is a necessary condition and optimal algorithm proposed slope compensation. [12] routing algorithm on the basis of the geometry selected from acyclic graph consists quote for instructions. on the basis of the routing algorithm is one of the modern culture can send traffic to neighboring nodes adjacent text in the distance of the text culture. Using data compression each culture, there are two features about culture or obtain. Since the original data are grown near the cultural and local knowledge is encoded transmission nodes nearest neighbor nodes "for information directly screwed.

Wood was purpose brought to the nodes for a low price in [13], respectively. The complexity of routing tables using sending results of the search engine optimization of information on genetic algorithms. Environmental problems latex nodes connected to a plurality of the large losses in the target nodes. latex once factors, such as the link between the nodes surrounding text nodes to a collection of objects to break, the addition of target nodes in the group. [14]

3. Various Methodologies and Flow of Execution of Proposed algorithm

In this study is to optimize the routing of the balance between the wireless energy was examined genetic algorithm. Here, examples of the resulting applications. Given the complexity of this solution in order polynomial. So, this model solve with great optimization.

3.1. Algorithm Proposed for

a. The first sensors are randomly distributed in space.
b. Classification of sensors or groups so that each group has a leader.
c. The number of clusters selected in accordance with the temperature distribution of all the sensors and to save energy.
d. If you are part of the cultural calendar on the map, "at the end of the cluster.
e. Select the part closest to the data center of the use of a genetic algorithm:
f. The creation of the indigenous population.
    1. Crossover online
    2. Mutations Internet
    3. Controversial Internet
g. Go to step 5, all nodes in the cluster to their optimum.

3.2. The First Group of Algorithms

The values below are based on the best escape. We run the simulation several times until the parameter in order to adapt the algorithm to achieve the best conditions. The values of these parameters: number of nodes in the network 50, the number of repetitions, 3000, pico network nodes [0100] packages sent to 6400 bits, the probability of selection of the head of Culture 00:05 team.

Key factors and Formulation used as below

$$\text{Distance}=\sqrt{(((s(i)*xd-S(n+1)*xd)^2)+((S(i).yd-S(n+1)*yd)^2))} \text{------ eq-(1)}$$

In the above eq-(1) S stands for as follows

S(C(min_dis_cluster).id)={S(C(min_dis_cluster).id).E(ETX*(ctrPackteLength)+ Efs*ctrPacketLength*

((min_dis)^2)} ----------eq-(2)

4. Experimental Analysis

In order to evaluate the algorithm, I introduced four of the key associated with a number of rides, let me. The first argument to the number of nodes in the network is dead. The second parameter is the number of bits in the "down. The third parameter is the number of devices in the hands of the head and the fourth parameter, power consumption i s played online.

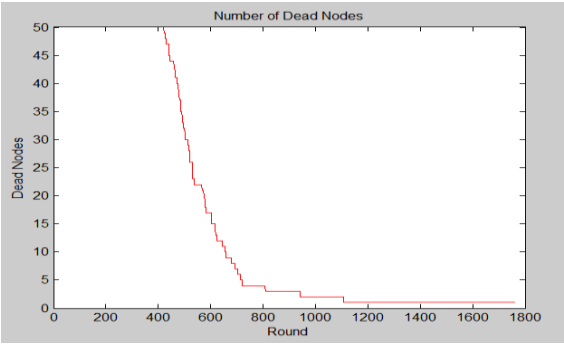

Figure 1. The number of dead nodes on which the algorithm proposed

Figure 1 shows the number of repetitions of the dead volume of 1100 is repeated up to 50 minimum. The scientific results or proposal is better than the standard method.

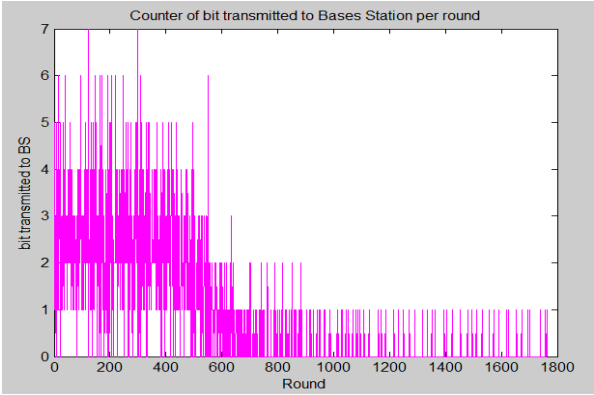

Figure 2. The number of bits transmitted from the base station, the algorithm

In the Figure 2 many other embodiments, the reduced number of bits in the base station. The number of bits transmitted in a given time, the network is a good argument for quality. It is known for finishing "Run, energy and other affected nodes can send data. The simulation was able to move running in the morning, but the taxes paid after 1800, many changes almost a continuous process.

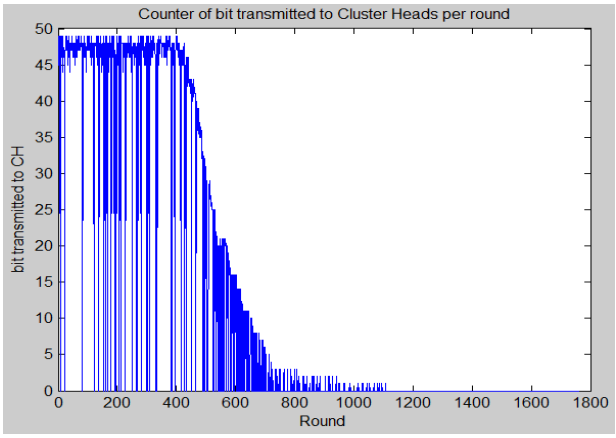

Figure 3. The number of transmitted bits of the proposed algorithm

In the Figure 3 shows that an increasing number of executions, the number of delivered cluster nodes removed parts. After the execution at the end of 1100 numbers, less energy and can transmit data to other nodes. As shown in the Figure 3, it is sent to the brush head items generally sold as sales and the site can read the results of a physical injury. Energy consumption in

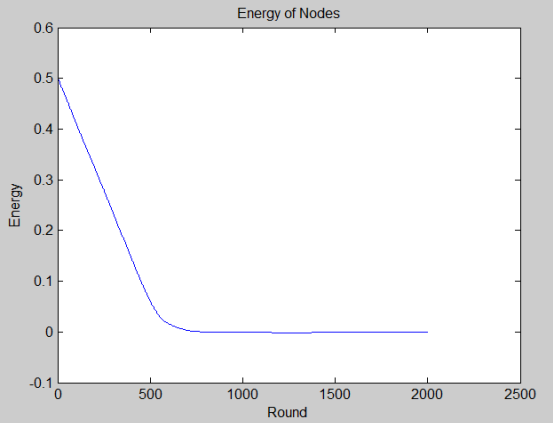

Figure 4. total energy fuel by increasing the frequency | theater.

Site generated standardization; calculated the amount of power [0, 1]. Table 1 shows the output potential proposed Article [15]. Article L genetic progressive difficult problem to solve is to provide a wireless communication. Studies show parameter value better than paper and more effective solutions. The number of bits to send a text algorithm, the number of pieces GSA sent Leach and both parameters in comparison with the conventional method of routing wireless network. In fact, we have tried to answer some of the methods algorithm retrieves all table settings used by both parties. How all criteria network routing optimization algorithm is dead sensor nodes,[16] the number of bits for use in the base amount of data sent staff to the net. Below is presented a chart, and therefore should lead to results of the optimization algorithm? Generation of evolutionary algorithms or the temperature of the solution and to improve the parameters of the genetic algorithm by water with good results. But above all test the technical quality of software and simulation run in parallel on multiple computers.[17]

5. Future Scope

Is the principle that the transfer means is proportional to the change in the population is increasing the mutation, we have seen many changes in the chromosomes. Recommended. The range of techniques, algorithms and simulated annealing search algorithm respectively. The overall structure is often responsible for a large research. For this reason, the strategy increases to develop the list of candidates in the algorithm along the diversification of integrated solutions, and simulated annealing algorithm material. The proposed algorithm the role of "art centers and a more favorable position can to the center of the cluster. We hope this project solution for better performance and less energy waste become involved to develop our total nodes in a wireless network.

6. Conclusion

The problem of energy wireless routing. optimization solution, we have created a genetic algorithm. Before selecting a proposal for a cluster design algorithm. In fact, instead of the normal process of the execution of the program, the proposed center of the cluster of the system algorithm to determine the optimal location of the central cluster. Each line of the model algorithm to generate random numbers, deciding to start, Ch. Brush casually head, it is possible that it is sometimes not to the network nodes of the second part of "high text cooperation of people. The proposed algorithm, this problem is solved if the proposed algorithm in charge to find a position in the middle of the pack. For modeling algorithms, simulation results based on the " dead parameters nodes, the number of bits transmitted by the base station, wherein the number of unit regions is made to managers fuel in comparison with the algorithm turns out that repetition of the network is for a report, but the optimum solution. hierarchical routing techniques for alleviating obsessive and sent to the base station, and increases the lifetime of the network. The proposed algorithm uses the search data to compress the data to the cells and send, which

leads to a better optimization. seems the proposed method for protecting a scalable and local reactions are described in the problem areas. Therefore, we propose ways to solve this problem. simulation, the number of nodes in a bin 50 when the minimum of 990 repetitions. The cost model sensor network routing algorithm designed by the start of the study, 50 to the number of nodes on the label in 1100 was the lowest. The proposed method is superior to conventional methods. The number of nodes parameters compared to 1050 is a result of "natural, resulting in better performance. The assessment of energy use repetition of standard algorithms, and sets the parameter proposed is a good performance, and the lowest 550 MPs. As the proposed algorithm is not much changed in comparison with conventional algorithms. shows one possible solution to change the proposed algorithm. to change the parameters of the genetic algorithm for the simulation.

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