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A Lattice Existence Inflation Mechanism for Sink Transferring and Its Scrutiny in Wireless Sensor Network Using EGPSR

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ABSTRACT: In a wireless sensor network (WSN), it is very difficult to conserve the limited power resources of sensors to extend the network lifetime of the WSN as long as possible while performing the sensing and sensed data reporting tasks.We find the best path between the source and destination using the EGPSR (Energy aware Greedy Perimeter Stateless Routing Protocol). In EGPSR algorithm, each node transmits packets that contain the location information of the node, rate of energy consuming and fraction of energy consumption to all its neighbours within its communication range initially. Thus, the proposed system can find the optimal path between source and destination with less energy consumption.

KEYWORDS:Greedy Routing, Energy-awareness, Lifetime, Wireless sensor Networks, Simulation

I. INTRODUCTION

Wireless Sensor network is a distributed autonomous sensor to monitor physical or environmental conditions such as Temperature,Pressure,Sound etc...and to Communally pass their data through the network to a main locality. The modern networks are which are being bi-directional and also enables control of sensor activity. The progress of wireless sensor networks was majorly motivated by military applications such as battlefield surveillance because in that places human cannot monitor the actual conditions, today such networks are used in many industrial and consumer applications, such as industrial process observinging and control, machine health monitoring, and other such kind of applications.

Any node in a WSN can be converted into a source or destination, and every node can role as a router, forwarding data for its peers. WSN routing protocols can be classified into topology-based and position-based protocols.
Topology-based protocols are either proactive or hasty in nature. Proactive routing protocols conclude and maintain routes between any pair of nodes irrespective of their requirement. The hasty on-demand routing protocols determine a route only when required. As the network topology changes animatedly, reactive on-demand routing has been preferred over proactive routing .Position-based routing protocols do not conduct on-demand route discovery to learn and preserve routes. as a replacement for, forwarding decisions are taken independently for each data packet at every forwarding node (i depending on the location of the forwarding node, the in-between nodes and the destination.

II. BACKGROUND AND RELATED WORK

In EGPSR algorithm, each node broadcasts their Message packets to all its neighbors that are in its communication range. The Message packet contains the location information of the node, rate of energy consumption and division of energy consumption. The reproduction results shows that the proposed systems that can be find the optimal path between source and destination with less energy consumption and also increases the performance of the network
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A***Energy Aware Routing***

The main constraint of wireless sensor networks (WSNs) is the limited and generally unique power source of the sensor nodes. Therefore, scheming energy saving routing algorithm is one of the most focused research issues.EGPSR algorithm broadcast the HELLO message to all neighbor nodes within the communication. So the data transmission Packet contain energy consumption and location of the node. It is depends on relation of power expenditure and routing.We also provide a inclusive discussion on the scalability and opportunity of the framework.

B. ***Energy consuming model***

The energy consumption rate for sensors in a wireless sensor network varies greatly based on the protocols the sensors use for communications. . If the energy of the nodes is increased in the sense it can effectively increases the lifetime of the network. So, that we are proposing the EGPSR (Energy aware Greedy Perimeter Stateless Routing Protocol) algorithm to identify the source and destination node. This EGPSR algorithm broadcast the HELLO message to all of its neighbor nodes within the communication range.

C.The Energy Efficient Load Balanced Routing protocol

In order to prolong the network lifetime of a WSN, energy saving is the key design issue. Routing protocol designs of message reporting in a WSN can generally be classified into two categories: static routing and dynamic routing. For the static routing type, when as the message reporting paths are determined, each sensor node will report its sensed data along the predetermined path tothe sink at any time (for example, the tree shown in Fig. 1).On the other hand, a dynamic routing protocol might alter the routing paths in each transmission round according to the current state of the sensor nodes' residual battery energy. Due to the fact that the dynamic routing protocols can balance the load on each sensor node, it performs better for network lifetime prolonging than the static routing protocols

III. LITREATURE REVIEW

F. Delicato*etal*.,Suggested [10]Energy saving is a paramount concern in wireless sensor networks (WSNs). A strategy for energy saving is to cleverly manage the duty cycle of sensors, by dynamically activating different sets of sensors while non-active nodes are kept in a power save mode. We propose a simple and efficient approach for selecting active nodes in WSNs. Our primary goal is to maximize residual energy and application relevance of selected nodes to extend the network lifetime while meeting application-specific QoS requirements. We formalize the problem of node selection as a knapsack problem and adopt a greedy heuristic for solving it. An environmental monitoring application is chosen to derive some specific requirements

M. Marta*etal*.,Suggested [18]A critical issue for data gathering in wireless sensor networks is the formation of energy holes near the sinks. Sensors near the sinks have to participate in relaying data on behalf of other sensors and thus will deplete their energy very quickly, resulting in network partitioning and limitation of the network lifetime. The solution that we propose in this paper is to use mobile sinks that change their location when the nearby sensors' energy becomes low. In this way the sensors located near sinks change over time. In deciding a new location, a sink searches for zones with richer sensor energy

.Y. Sun, W*et al*.,Suggested [19]In a wireless sensor network for data-gathering applications, if all network data congregate to a stationary sink node hop by hop, the sensor nodes near the sink have to consume more energy on forwarding data for other nodes, which probably causes the early function loss of the sensor network. Employing a mobile sink can alleviate the hotspot problem and balance the energy consumption among the sensor nodes. In this paper, we propose two autonomous moving schemes for the mobile sink. In our schemes, the sink makes moving decisions without complete knowledge of network topology and the energy distribution of all sensor nodes. We evaluated the performance of our moving schemes by simulation and the results show that both the two schemes can extend the network lifetime prominently.

Y. Bi, L*et al*.,Suggested [20] Sink mobility has attracted much research interest in recent years because it can improve network performance such as energy efficiency and throughput. An energy-unconscious moving strategy is potentially

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harmful to the balance of the energy consumption among sensor nodes so as to aggravate the hotspot problem of sensor networks. In this paper, we propose an autonomous moving strategy for the mobile sinks in data-gathering applications. In our solution, a mobile sink approaches the nodes with high residual energy to force them to forward data for other nodes and tries to avoid passing by the nodes with low energy.

IV. EXISTING SYSTEM

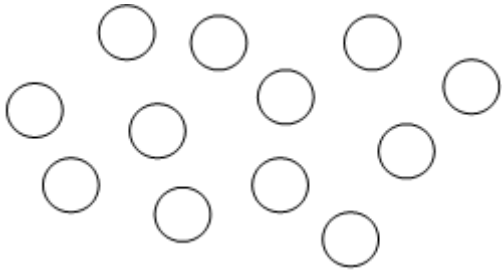
By increasing or prolonging the network life time, the proposed a moving strategy called energy-aware sink relocation (EASR) for mobile sinks in WSNs. For routing purpose we have to implement the MCP (Maximum Capacity Path) algorithm. And also we use the relocatable sinks method to relocating the sinks. The MCP algorithm chooses the efficient path from the multiple path discoveries for efficient message relaying process. Existing used sensor node to provide prolong life time but it does not provide. Hence we used sink node to achieve it. The sink nodes are relocated during the packet transmission. It will be changed at each step. The relocatable sinks methods find out the the sink node and where is to be located information's. The cost of the sink node is alsolow than sensor node. Finally our proposed EASR scheme prolong the network lifetime.

V. PROPOSED SYSTEM

The Process of existing system does not concentrate temporal information of data center. In existing the server and big quantity of network take more energy for packet transmission. In this proposed system using EGPSR (Energy aware Greedy Perimeter Stateless Routing Protocol) algorithm to identify the source and destination node. This EGPSR algorithm broadcast the HELLO message to all neighbour nodes within the communication. So the data transmission Packet contains energy consumption and location of the node. It is depends on relation of power utilization and routing. We also provide a comprehensive process on the scalability and opportunity of the framework.

A. Node Formation

In this concept itform the mobile node. Each of which are the mobile nodes.Constructing an energy-efficient virtual network backbone in these networks for broadcasting applications. We develop the notation of directional network backbone. The proposed scheme uses Role-based nodes which are assigned to manipulate the traffic in a cluster, through the time-oriented traffic evaluation scheme. This work describes a quantitative traffic-based approach where a topology creation mechanism takes place in order to enable each node to sleep according to the time duration of the active traffic that each node expects and experiences.



B.Topology Creation

In this process first find out the source and destination. And also find out the each node behaviour. This finding is due to the convex manner in which power is consumed with respect to the traffic load. Topology creation means we need to find out each node location for communication. For this reason we first form the topology, which means we receive the

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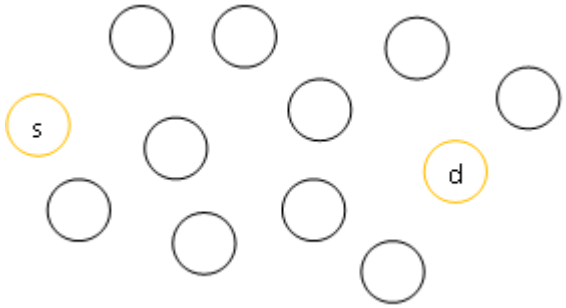
reply message from each of which neighbor node. The estimation of the number of active switches is accomplished by a simple calculation in which we divide the total traffic by the capacity of the switch.

C. Identification of source and Destination

The source and destination node identification process involve the EGPSR algorithm. The multi hoping technique to sense the sink relocation. Which can be establish the framework for investigating the joint sink mobility and routing problem by constraining the sink to a finite number of locations to identify the node detail. The results demonstrate the benefit of involving sink mobile node, and they also recommend the desirable moving traces of a sink.



D.Path Selection

In this phase apply the Three VM principle for find out the virtual machine behavior and choose the best one. The optimal number of switches determined, the best way to achieve energy savings is to balance the traffic among all of the used switches. In first explore the relation between energy consumption and routing, and then, based on this relation, it can design a two-phase energy-efficient routing algorithm. Proposed system provides energy efficiency compared than existing system. It optimal path for packet transmission by using EGPSR algorithms. We find the best path between the source and destination using the EGPSR (Energy aware Greedy Perimeter Stateless Routing Protocol)

E. Packet transmission

In EGPSR algorithm, each node broadcasts some significance packets to all its neighbour that are in its communication range. The message packet contains the location information of the node, rate of energy utilization and fraction of energy consumption. A new discovery process is started whereby a route request packet is broadcast from mobile node to mobile node until it arrives at the destination. However, othernodes will continue to transmit it until reach the destination node. After finding out the best possible path using the EGPSR algorithms the packets are transmitted. However, beyond this region the route request is further broadcast with a deliberate additional delay until such broadcast fades away as node reaches the connected network is fully covered

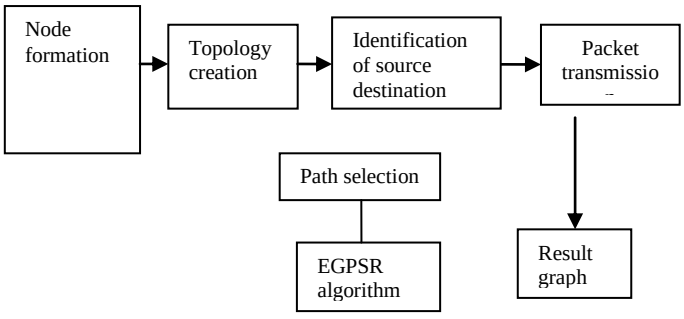


Fig1.System Architecture

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VI. PERFORMANCE EVALUATION

It is easy to find the malicious node,avoids traffic signal and reduce the delay during data transfer.And finally transfer the data in efficient manner

A.Packet Received

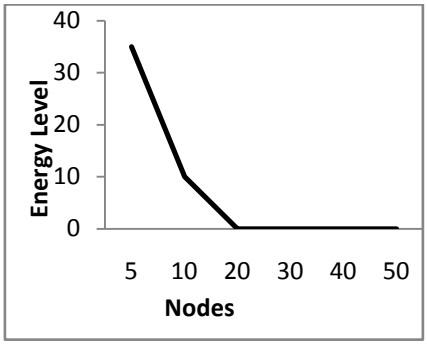

Fig 2 Packet Received

In Figure 2,every node is verified by the cluster head,if it contain any fault it use the EPGPSR algorithm to remove the fault node and send the node to destination.

B.Energy Consumption

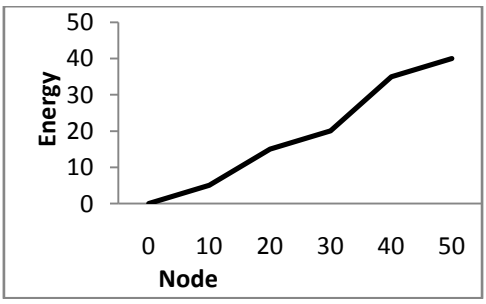

Fig 3 Energy Consumption

In Figure 3, it describe the relationship between the simulation time and energy .The energy is depend upon the simulation time. If the time increases, the energy also increase

VII. CONCLUSION

The sink relocation process take more time for relocation process, after the relocation process data packets are transmit through the destination node. Hence we used the Energy aware Greedy Perimeter Stateless Routing Protocol (EGPSR) in this method after the identification of source node routing the data packets to the neighbour node to identify the optimal path. All the nodes send the message to know the neighbour information. The data packets area transmitted to destination node via optimal path without any relocation process so this process take less time compare than sink relocation method. Finally our proposed system achieves transmission of data packets in minimized time constraint. Hence we used Energy aware Greedy Perimeter Stateless Routing Protocol (EGPSR).

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