



IMPLEMENTATION ON SOLVE BROKEN LINK PROBLEM IN WIRELESS SENSOR NETWORK

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Abstract: Whenever a topological gets modified due to unexpected reason in Open Shortest Path First, network routing algorithms have been used in order to update routing table. For example, if there is a failure of link in a network then shortest paths must be recomputed. Here smallest paths calculation is done using router. When links consists of new weights in a network at time of using router could create duplicities through performing more computations & unnecessary corrections by repeating operation for every node regardless of location of link weight change. So it could cause network instability because overall routing table is frequently updated. Path loss or path attenuation is considered as reduction in power density that is also known as attenuation of an electromagnetic wave as it is propagating through space.

Keyword: consist, computations, frequently, calculation, unexpected.

[1] INTRODUCTION

Wireless sensor network

Wireless communications has been achieving consideration from 1990 & it is considered as base of wireless sensor network. Wireless sensor network consist of lot of constraints like limited power energy, small storage capacity, slow processing power. Many sensors like humidity, accelerator, & light could be used in this network to detect environmental conditions. Today demand for network applications has grown quickly.

Sensor Networks

A sensor network is a consisted of communicating sensing devices, or nodes. All bulges are not of necessity communicating at any particular time, & nodes could only communicate within a few nearby nodes.

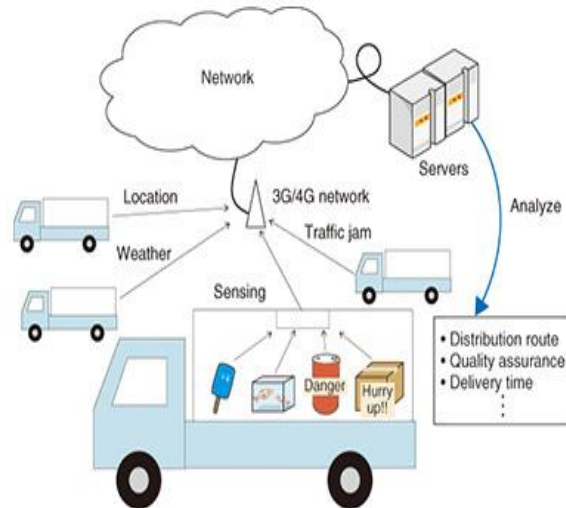


Fig: 1 Sensor Networks

Wireless sensor

Node architecture Wireless sensor node is made up four basic components: a sensing unit, a processing unit, a transceiver unit & a power unit. There could be application dependent additional components such as a location finding system, a power generator & a mobilize.

[2] APPLICATION WIRELESS SENSOR NETWORKS

Area monitoring

The most common application is Area monitoring in Wireless Sensor Networks. It is deployed on portions where some event has to be monitored. Armed examples could be considered by us

as suitable utilization of sensors which detect rival interference .Civilian example could be considered as geo-fencing of gas pipelines.

Wireless Sensor Networks Platform

Hardware

The most challenging in Wireless Sensor Networks is generating minimum costing & small sensor nodes .The counting of small companies which produce Wireless Sensor Networks hardware is increasing commercial situation could be compared to home counting in 1970s.

[3] LIRETURE REVIEW

P.Natesan (2012) Multi Stage Filter Using Enhanced Ad boost for Network Intrusion Detection International

Based on analysis & distribution of network attacks in KDDCup99 dataset & real time traffic, this paper proposes a design of multi stage filter which is an efficient & effective approach in dealing within various categories of attacks in networks

Acls International Journal In Foundations Of Computer Science & Technology

Access Control list plays a very important role in network security. Proper combination of rules for ACLs could close loop holes in system, this minimizing security breaches. An ACL could improvise network performance up to a good level by limiting traffic controls areas that could be accessible to any device or user.

Fei Hu Secure (2017) Wireless Sensor Networks: Problems & Solutions Electrical & Computer Engineering Department, Clarkson University

As sensor networks edge closer towards wide-spread deployment, security issues become a central concern. So far, main scanner seat has been on creating sensor networks viable and useful, and less emphasis was placed on security.

[4] PROPOSED WORK

There remain problems related to broken link in wireless sensor network. Main reason of such situation is coverage area, loss of signal or attenuation. Some time environmental factors might also be responsible for such situations. Broken link problem in wireless sensor network came into existence due to path loss.

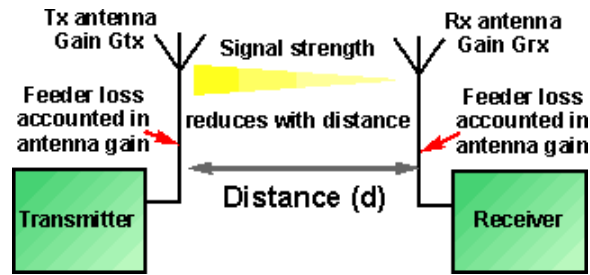


Fig:2 Free Space Path Loss

[5] RESULT & DISCUSSION

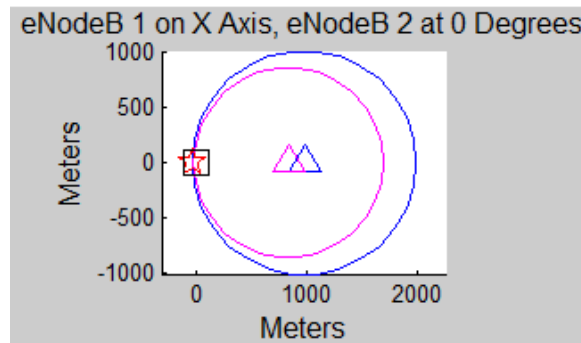


Fig:3 Simulation Of Enodeb 1 On X Axis , Enodeb 2 At 0 Degrees

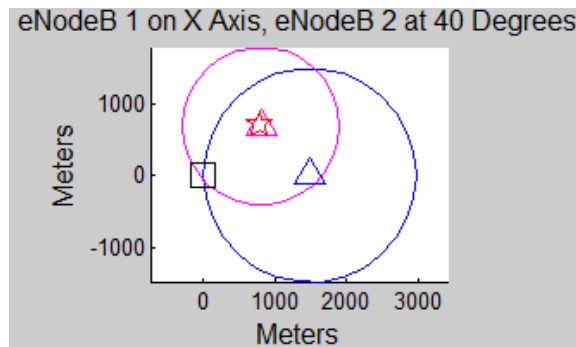


Fig:4 Simulation Of Enodeb 1 On X Axis , Enodeb 2 At 40 Degrees

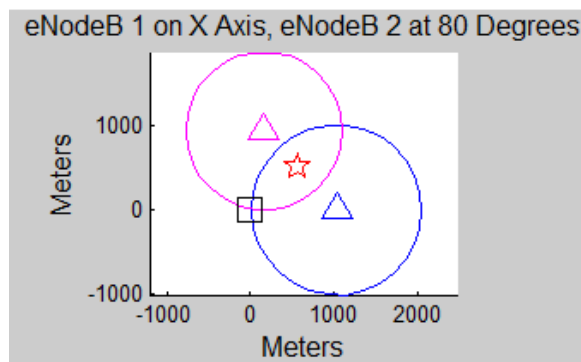


Fig: 5 Simulation Of Enodeb 1 On X Axis , Enodeb 2 At 80 Degrees

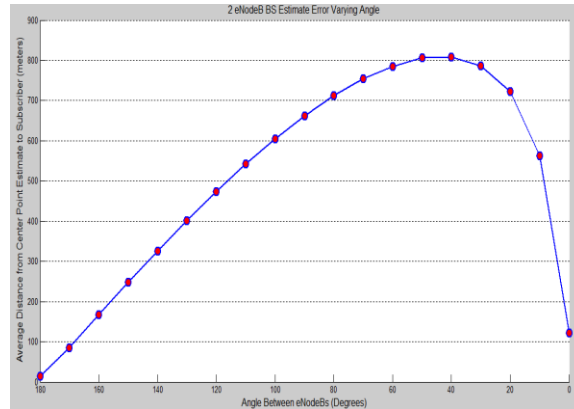


Fig:6 Average Distance From Center Point Estimate To Subscriber

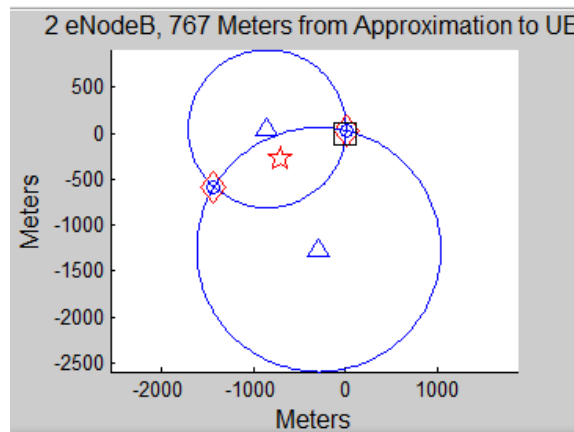


Fig: 7 Enodeb 767 Meters From Approximation To Ue

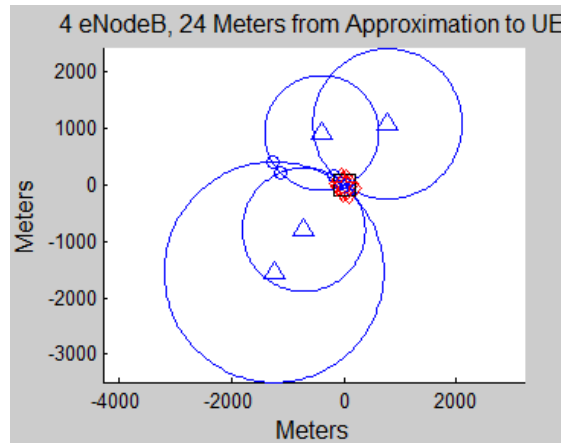


Fig: 8 Enodeb 24 Meters From Approximation To Ue

[6] FUTURE SCOPE

There remain problems related to broken link in wireless sensor network. Main reason of such situation is coverage area, loss of signal or attenuation. Some time environmental factors might also be responsible for such situations. Broken link problem in wireless sensor network came

into existence due to path loss. Path loss or path attenuation is considered as reduction in power density that is also known as attenuation of an electromagnetic wave as it is propagating through space.

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