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Patent Search

Invention Title	AN EFFICIENT INFORMATION RETRIEVAL AND ROUTING USING AODV ON TDMA IN WIRELESS SENSOR NETWORKS.
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Inventor

Name	Address	Country
Najmuddin M Maroof	Associate Professor, Department of Electronics and Communication Engineering, Faculty of Engineering and Technology, Khaja BandaNawaz University, Kalaburagi-585104 Karnataka INDIA Email: - ecemaroof99@gmail.com	India
Dr. Mohammed Abdul Waheed	Associate Professor, Department of Computer Science and Engineering, Visvesvaraya Technological University CPGS, Kalaburagi Karnataka, - 585105 Email: - prof.mawaheed@gmail.com	India
Dr. Ayesha Heena	Asst.Professor., Department of Artificial Intelligence & Machine Learning, Faculty of Engineering and Technology(Exclusively for Women), Sharnbasva University, Kalaburagi, Karnataka, INDIA. Email: - ayeshaheena31@gmail.com	India
Md. Yousuf Ahmed	Asst.Professor, Department of Electronics and Communication Engineering, Faculty of Engineering and Technology, Khaja BandaNawaz University, Kalaburagi-585104 Karnataka INDIA Email: - yousufzairdi@gmail.com	India
Md. Mazhar Hussain	Associate Professor, Department of Electronics and Communication Engineering, Faculty of Engineering and Technology, Khaja BandaNawaz University, Kalaburagi-585104 Karnataka INDIA Email: - mazhar.h74.mh@gmail.com	India
Mohammad Khadir	Assistant professor Department of Electronics and Communication Engineering, Institute of Aeronautical Engineering Dundigal,Hyderabad-500043 Telangana,India Email: mohammad.khadir@iare.ac.in	India
Dr.Pradeep Karanje	Associate Professor Department of Electronics and Communication Engineering,Guru Nanak Dev Engineering College Bidar Email: pradeepkaranje2012@gmail.com	India
Dr. Rajib Kar	Associate Professor Department of Electronics and Communication Engineering,National Institute Of Technology, Durgapur, West Bengal-713209 Email: rajibkarece@gmail.com	India

Applicant

Name	Address	Country
Najmuddin M Maroof	Associate Professor, Department of Electronics and Communication Engineering, Faculty of Engineering and Technology, Khaja BandaNawaz University, Kalaburagi-585104 Karnataka INDIA Email: - ecemaroof99@gmail.com	India
Dr. Mohammed Abdul Waheed	Associate Professor, Department of Computer Science and Engineering, Visvesvaraya Technological University CPGS, Kalaburagi Karnataka, - 585105 Email: - prof.mawaheed@gmail.com	India
Dr. Ayesha Heena	Asst.Professor., Department of Artificial Intelligence & Machine Learning, Faculty of Engineering and Technology(Exclusively for Women), Sharnbasva University, Kalaburagi, Karnataka, INDIA. Email: - ayeshaheena31@gmail.com	India
Md. Yousuf Ahmed	Asst.Professor, Department of Electronics and Communication Engineering, Faculty of Engineering and Technology, Khaja BandaNawaz University, Kalaburagi-585104 Karnataka INDIA Email: - yousufzairdi@gmail.com	India
Md. Mazhar Hussain	Associate Professor, Department of Electronics and Communication Engineering, Faculty of Engineering and Technology, Khaja BandaNawaz University, Kalaburagi-585104 Karnataka INDIA Email: - mazhar.h74.mh@gmail.com	India
Mohammad Khadir	Assistant professor Department of Electronics and Communication Engineering, Institute of Aeronautical Engineering Dundigal,Hyderabad-500043 Telangana,India Email: mohammad.khadir@iare.ac.in	India
Dr.Pradeep Karanje	Associate Professor Department of Electronics and Communication Engineering,Guru Nanak Dev Engineering College Bidar Email: pradeepkaranje2012@gmail.com	India
Dr. Rajib Kar	Associate Professor Department of Electronics and Communication Engineering,National Institute Of Technology, Durgapur, West Bengal-713209 Email: rajibkarece@gmail.com	India

Abstract:

ABSTRACT [1] Our Invention "An Efficient Information retrieval and Routing using AODV on TDMA in Wireless Sensor Networks" has been claimed. Wireless sensor net expected to find wide applicability and increasing deployment in coming years, as they enable reliable monitoring and analysis of the environment. Users of such a sy expect to get a real time warning when time-critical situations occur in the network and also to be able to retrieve any required information by issuing queries to the this innovation we claim a formal classification of sensor networks, based on their mode of functioning, as proactive and reactive networks. In proactive networks data at pre-specified, fixed intervals while reactive strategy requires the nodes to respond immediately to changes in the relevant parameters of interest. We are able to cc best features of proactive and reactive networks while minimizing their limitations to create a new type of network called a Hybrid network which not only reacts to ti situations, but also gives an overall picture of the network at periodic intervals in a very energy efficient manner. We introduce two new energy efficient protocols, TEI (Threshold-sensitive Energy Efficient sensor Network protocol) for reactive networks and APTEEN (Adaptive Periodic Threshold Sensitive Energy Efficient Sensor Netw for hybrid networks. We have also innovated the third protocol for routing queries in hybrid networks. This protocol provides the user, flexibility to request either pas future data from the network in the form of historical, one-time and persistent queries respectively. We have also analytically determined the delay incurred in handli various types of queries. To our knowledge, such an analytical modelling has been done for the first time for sensor network queries. These three protocols offer vers users while consuming energy very efficiently by minimizing non-critical data transmissions. We evaluated the performance of these protocols for a simple temperatu application with a Poisson arrival rate for queries. In terms of energy efficiency, these protocols have been observed to outperform existing conventional warehousin network protocol.

Complete Specification

Description:FIELD OF THE INVENTION

[2] Our Invention is related to An Efficient Information retrieval and Routing using AODV on TDMA in Wireless Sensor Networks.

BACKGROUND OF THE INVENTION

[3] Wireless Senor networks are a collection of hundreds or thousands of sensors
nodes communicating together to achieve the task assigned. A sensor node is a
device that converts a sensed attribute (such as temperature, vibrations) into a form understandable by the users. Each of such devices may include a sensing mod communicating module (display or a media to transmit data to the user), memory (to hold data till it can be used) and a power supply for the sensor.

[4] The low cost of sensors makes it possible to have a network of hundreds or thousands of these wireless sensors, thereby enhancing the reliability, accuracy of di the area coverage. Also, it is necessary that the sensors be easy to deploy (i.e., require very low or no installation cost etc.).

[5] In addition, since these sensor nodes are deployed in places where it is difficult to either replace the nodes or their batteries, it is desirable to increase the longe

View Application Status