



吉首大学学报自然科学版 » 2011, Vol. 32 » Issue (3): 59-62 DOI:

信息与工程

[最新目录](#) | [下期目录](#) | [过刊浏览](#) | [高级检索](#)

[Previous Articles](#) | [Next Articles](#)

无线传感器网络能效路由协议的研究进展

(吉首大学物理科学与信息工程学院,湖南 吉首 416000)

Overview of Energy Efficient Routing Protocols in Wireless Sensor Networks

(College of Physics Science and Information Engineering,Jishou University,Jishou 416000,Hunan China)

- 摘要
- 参考文献
- 相关文章

全文: [PDF \(217 KB\)](#) [HTML \(1 KB\)](#) **输出:** [BibTeX](#) | [EndNote \(RIS\)](#) [背景资料](#)

摘要 能效是无线传感器网络路由协议研究的热点与重点.介绍了无线传感器网络能效路由协议的发展状况,分析了协议的容错性、健壮性等指标,并给出了协议的各类应用场景.结合协议的研究现状,指出了能效路由协议未来的研究方向,对无线传感器网络路由协议的研究起到一定的指导作用.

关键词: 无线传感器网络 路由协议 能效

Abstract: Energy efficiency is a hot and key research point in wireless sensor networks routing protocols.The development of energy efficient routing protocols in wireless sensor networks is introduced.Then the fault tolerance and robustness of the protocols are studied.And the applications of the protocols are given.According to the current researches on the protocols,the prospective research of energy efficient routing is summarized.The commercialization and industrialization of the wireless sensor networks may be promoted.

Key words: [wireless sensor networks](#) [routing protocols](#) [energy efficient](#)

服务

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ E-mail Alert
- ▶ RSS

作者相关文章

- ▶ 邓小飞
- ▶ 徐倩
- ▶ 黄光亚

作者简介: 邓小飞(1982-),女,湖南邵阳人,吉首大学物理科学与信息工程学院教师,硕士,主要从事通信与控制研究.

引用本文:

邓小飞,徐倩,黄光亚.无线传感器网络能效路由协议的研究进展[J].吉首大学学报自然科学版,2011,32(3): 59-62.

DENG Xiao-Fei,XU Qian,HUANG Guang-Ya. Overview of Energy Efficient Routing Protocols in Wireless Sensor Networks[J]. Journal of Jishou University (Natural Sciences Edit), 2011, 32(3): 59-62.

- [1] 李晓维.无线传感器网络技术 [M].北京:北京理工大学出版社, 2007.
- [2] HEINZELMAN W,CHANDRAKASAN A,BALAKRISHNAN H.Energy-Efficient Communication Protocol for Wireless Microsensor Networks [C]//Proceedings of the Hawaii International Conference on System Sciences.USA:Maui,2000:223-232.
- [3] AKKAYA K,YOUNIS M.A Survey of Routing Protocols in Wireless Sensor Networks [J].Ad Hoc Network,2005,3(3):325-349.
- [4] LI Xiao-ya,HUANG Dao-ping,YANG Jian.Energy Efficient Routing Protocol Based Residual Energy and Energy Consumption Rate for Heterogeneous Wireless Sensor Networks [C]//Proceedings of the 26th Chinese Control Conference.China:Zhangjiajie,2007:587-590.
- [5] 李小亚,黄道平,等.一种异构传感器网络的能效路由协议 [J].计算机科学,2008,35(5):60-63.
- [6] 李莉,温向明.无线传感器中分簇算法能效性分析 [J].电子与信息学报,2008,30(4):965-969.
- [7] MANJESHWAR A,GRAWAL D P.TEEN:A Protocol for Enhanced Efficiency in Wireless Sensor Networks [C]//Proc. of the 15th Parallel and Distributed Processing Symp.San Francisco,2001:2 009-2 015.
- [8] MANJESHWAR A,AGRAWAL D P,APTEEN:A Hybrid Protocol for Efficient Routing and Comprehensive Information Retrieval in Wireless Sensor

- [8] LINDEGREN T,HEINZELMAN W,GOVINDAN R,ESTRIN D.Efficient Routing and Comprehensive Information Retrieval in Wireless Sensor Networks [C].Proc. of the 2nd Int'l Workshop on Parallel and Distributed Computing Issues in Wireless Networks and Mobile Computing.IEEE Computer Society,2002:195-202.
- [9] HEINZELMAN W,KULIK J,BALAKRISHNAN H.Adaptive Protocols for Information Dissemination in Wireless Sensor Networks [C].Proceedings of the Annual International Conference on Mobile Computing and Networking.USA:Seattle,1999:174-185.
- [10] INTANAGONWIWAT C,GOVINDAN R,ESTRIN D.Directed Diffusion:A Scalable and Robust Communication Paradigm for Sensor Networks [C]//Proceedings of the Annual International Conference on Mobile Computing and Networking.USA:Boston,2000:56-67.
- [11] BOUKERCHE A,CHENG Xiu-zhen,LINUS J.Energy-Aware Data-Centric Routing in Microsensor Networks [C]//Proceedings of the Sixth ACM International Workshop on Modeling,Analysis and Simulation of Wireless and Mobile Systems.CA,United States,2003:42-49.
- [12] LINDSEY S,RAGHAVENDRA C S,PEGASIS:Power Efficient Gathering in Sensor Information Systems [C]//Proceedings of the IEEE Aerospace Conference.Big Sky,2002,10(4):198-204..
- [13] LINDSEY S,RAGHAVENDRA C S,SIVALINGAM K.Data Gathering in Sensor Networks Using the Energy*Delay Metric [C]//Proceedings of the IPDPS Workshop on Issues in Wireless Networks and Mobile Computing.San Francisco,CA,2001:2 001-2 008.
- [14] 郑杰,屈玉贵,郭淑杰,等.无线传感器网络低时延能量均衡安全路由 [J].西安交通大学学报,2008,42(2):161-165.
- [15] XIE Zhi-jun,CHEN Hong.Subnets Based Distributed Data-Centric Hierarchical Ant Routing for Sensor Networks [C]//Proceedings 2005 International Conference on Wireless Communications.Networking and Mobile Computing,2005:895-900.
- [16] XU Y,HEIDEMANN J,ESTRIN D.Geography-Informed Energy Conservation for Ad hoc Routing [C]//Proceedings of the 7th Annual ACM/IEEE International Conference on Mobile Computing and Networking (MobiCom 01).Rome,Italy,July 2001:70-84.
- [17] QUN L,JAVED ASLAM.Hierarchical Power Aware Routing in Sensor Networks [C]//Proc. DIMACS Wksp.Pervasive Net.May,2001.
- [18] RAHUL C SHAH,JAN M.Energy Aware Routing for Low Energy ad Hoc Sensor Networks [C]//IEEE WCNC,Orlando,FL,Mar.17-21:2002.

没有找到本文相关文献

版权所有 © 2012《吉首大学学报(自然科学版)》编辑部

通讯地址：湖南省吉首市人民南路120号《吉首大学学报》编辑部 邮编：416000

电话传真：0743-8563684 E-mail：xb8563684@163.com 办公QQ：1944107525

本系统由北京玛格泰克科技发展有限公司设计开发 技术支持：support@magtech.com.cn