

A Survey on Energy Efficient Routing Techniques in Wireless Sensor Network

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Abstract—Energy conservation in Wireless Sensor Network (WSN) has always been the most crucial issue, for the sensor nodes are all powered by limited capacity battery sources which are difficult, if not impossible, to replace or recharge due to the inherent nature and types of applications WSN is used for. Therefore, energy efficient design of WSN has drawn considerable attention from many researchers resulting in quite a good number of approaches for saving the precious and limited energy of the sensor nodes. However, designing energy efficient routing protocol for WSN is the area that has received the most of the attention giving rise to many Energy Efficient Routing (EER) protocols. In this paper, a comprehensive list of these EER protocols have been studied having classified them into proper categories. The relative advantages and disadvantages of the protocols are also discussed while the protocols are evaluated based on certain performance metrics at the end of the paper.

Keyword—Wireless Sensor Network, Energy Efficient Routing, Routing Protocol, EER



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