

MAXIMIZING NETWORK LIFETIME WITH ENERGY EFFICIENT
ROUTING PROTOCOL FOR WIRELESS SENSOR

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DEC 2009

ABSTRACT

In the research field of Wireless Sensor Networks, how to reduce the energy consumption of WSN so that the lifetime of WSN can be prolonged is one of the hottest spots. Wireless sensor networks (WSN) lifetime is either superficial or impractical, which prevents us from thoroughly understanding the efficiency of these proposed routing protocols. Routing protocols have significant impact on the overall energy consumption of sensor networks. This project present variety of maximizing system lifetime wireless sensor networks with different energy consumption. Energy consumption for three routing protocols had been analyzed which are direct communication, minimum transmission energy and low adaptive energy clustering hierarchy. The energy consumption for Low Energy Adaptive Clustering Hierarchy (LEACH) routing protocol give the maximum lifetime compared to the others. Clustering is an energy efficient and scalable way to organize the WSN. The main objective of this research is to maximize the lifetime of the wireless sensor (WSN). Simulation via Matlab shows that by applying energy consumption for LEACH routing protocol had increase the network lifetime by as much as 65.2% compared to DC and MTE.

ACKNOWLEDGEMENT

First and foremost I would like to give my deepest and most sincere gratitude to Allah S.W.T. and special thanks for my supervisor, Miss Wan Norsyafizan binti W.Muhamad for her valuable advice and support for me since my step of this research until this thesis done successful.

I also owe gratitude to En Mohd Hafiz bin Mohd Radzi from the Engineering Faculty, University Industrial Selangor, Malaysia for guiding me on Matlab programming and for him supportive encouraging.

To my entire friend from the Engineering Faculty of University Technology MARA Malaysia who always gives their cooperation towards completion of this thesis. Only god can bless all of you in return.

Finally, I would like to thank my mum, my late father and my beloved family who give their love, support, and encouragement. Without them, this would not have been possible. I am very grateful for all this help.

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