Performance Comparison of EAMMH and LEACH Protocols using MATLAB

B.Tech Major Project

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CANDIDATES' DECLARATION

I hereby certify that the work which is being presented in the project titled "Performance Comparison of EAMMH and LEACH Protocols using MATLAB" in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology and submitted in the Department of Computer Science and Engineering, National Institute of Technology Hamirpur, is an authentic record of my own work carried out during a period from August 2016 to December 2016 under the supervision of **Dr. Pardeep Singh**, Assistant Professor, Department of Computer Science and Engineering, National Institute of Technology Hamirpur.

The matter presented in this project report has not been submitted by me for the award of any other degree of this or any other Institute/University.

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This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

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ABSTRACT

One of the main design issues for a sensor network is conservation of the energy available in each sensor node. Increasing network lifetime is important in wireless sensor networks. Many routing algorithms have been developed in this regard. Out of all these, clustering algorithms have gained a lot of importance in increasing the network lifetime thereby the efficiency of the nodes in it. Clustering provides an effective way for prolonging the lifetime of a wireless sensor network. This paper elaborately compares two renowned routing protocols namely, LEACH and EAMMH for several general scenarios, and brief analysis of the simulation results against known metrics with energy and network lifetime being major among them. In this paper will the results and observations made from the analyses of results about these protocols are presented.

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LIST OF ABBREVIATIONS

Abbreviations	Description
WSN	Wireless Sensor Network
LEACH	Low-Energy Adaptive Clustering Hierarchy
EAMMH	Energy Aware Multi-hop Multi-path Hierarchical
CH	Cluster Head
BS	Base Station
CHs	Cluster Heads