

## Energy Efficient Heterogeneous System for Wireless Sensor Networks (WSN)

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**Abstract :** Mobile devices are increasingly occupying sectors of society and one of its most important features is mobility. However, the use of mobile devices is subject to the lifetime of the batteries. Thus, the use of energy batteries has become an important issue in the study of wireless network technologies. In this context, new solutions that enable aggregate energy efficiency not only through energy saving, and principally they are evaluated from a more realistic model of energy discharge, if easy adaptation to existing protocols. This paper presents a study on the energy needed and the lifetime for Wireless Sensor Networks (WSN) using a heterogeneous network and applying the LEACH protocol.

**Keywords :** wireless sensor networks, energy efficiency, heterogeneous, LEACH protocol

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