Extended Q-LEACH Protocol using Intermediate Gateway Nodes for WSN

Abstract

WSN is built of various nodes – from a few to several hundreds or even thousands, where each node is connected to one or several sensors that is why the nodes are called the sensor nodes. These sensor nodes collect the physical or environment related data and sends to the sink node. All of these sensor nodes have limited energy power, so energy efficiency is the main factor that we have to consider while designing a wireless sensor routing protocol. Study shows that LEACH routing protocol and its different variants are energy efficient. Q-LEACH is a descendent of LEACH protocol which improve the lifetime of wireless sensor network by dividing the whole network in four equal quadrants. In this paper proposed extended Q-LEACH protocol using intermediate gateway nodes is discussed.

References


**Index Terms**

Computer Science  Wireless

**Keywords**

Wireless sensor network, energy efficiency, LEACH, Q-LEACH, gateway nodes.