A Novel Power Efficient Clustering Technique with a Fault Tolerance Mechanism based on Type -2 Fuzzy Logic, in a Multi-hop WSN

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Abstract

The main concern of this research paper is to improve lifetime and energy efficiency in wireless sensor network. There is a problem statement that when we increase the network lifetime by using type-2 fuzzy logic for selection scheme of cluster head. After the CH fails, there are problem in existing scheme is chained transmission of data packets and CH dependency on each other for transmission of data. Thus, when one sensor node fails, the whole sensor network will die. In this paper, to observe the problem we use fault tolerance schema. In starting of each round CH receives acknowledged packet if in a preset time slot this packet is not receiving than a fault alleged to occur at the CH.

References


Index Terms

Computer Science Fuzzy Systems

Keywords

Energy efficiency, fuzzy type-2, fault tolerance, WSN