A Clustering Algorithm for WSN to Optimize the Network Lifetime Using Type-2 Fuzzy Logic Model

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1 Summary

Wireless Sensor Network is a very important equipment now-a-days and to make it more efficient the energy consumption and enhanced life time can be achieved using Type-2 Fuzzy Logic. Sensor nodes are used in remote areas where the attendance of human is practically no possible.So using a clustering algorithm we select a cluster head which delivers data to base station. The best option is to choose the node that saves energy at maximum level,so using Mamdani's Method we choose the best cluster head and thus it optimize network lifetime.Type-2 Fuzzy Logic is used rather than Type-1 Fuzzy Logic as Type-2 is much more accurate and satisfactory. Fuzzy system uses three parameters to get the proper reading of which sensor node is more suitable to be cluster head.