

161. DE-CENTRALISED CLUSTERING AND DATA COMPRESSION FOR EFFECTIVE DATA TRANSMISSION IN WIRELESS SENSOR NETWORK

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The wireless sensor network consist of many number of nodes deployed in various locations. In this project the nodes are chosen based on geographic location and grouped together called as cluster and each cluster will have a leader called cluster head (CH). The CH chosen based on energy. The de-centralised clustering is used in which the role of CH is rotated because when same CH works for long period time it will lose its energy resulting loss of data transmissions. The compressive sensing (CS) is used to reduce the number of data transmissions. When number of transmissions is reduced then the network lifetime is improved. In CS the CH gathers all data from its members compress the data and send to the sink node. The recursive algorithm is used for priority based transmission of data. When the CH could not balance the cluster members it uses k-hop clustering method. Also master slave communication is used in heavy load situation. The multiple clusters are used in the project to improve the network capacity.

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