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(57) Abstract :

The present disclosure pertains to a method for data transmission in a wireless sensor network (WSN), said method comprising the steps of: determining, for each cluster, a cluster head (CH) node from a plurality of sensor nodes (SNs) based on residual energy of one or more of said plurality of SNs; identifying relay node (RN) for each said cluster based on selection of minimum distance between the clusters, along with deciding shortest relay route between said clusters to base station (BS); and calculating shortest distance between one or more pairs of SCH nodes and child nodes (CNs) such that, for a given pair of SCH and CN and for a defined number of iterations, if the calculated distance is less than a distance threshold, data transmission is initiated between the determined CH for the respective cluster and the base station (BS) through the shortest relay route.

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