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Centre Clustering Wireless Sensor Network Performance Enhancement

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A wireless sensor network (WSN) is a wireless network consisting of spatially distributed autonomous devices using sensor nodes (SNs). However, since WSN communications are likely to produce a broadcast storm, hierarchical clustering topology has been proposed to prolong the lifetime of WSNs by decreasing the SN energy consumption. Unfortunately, this network topology is still unstable owing to the overloading of cluster managers (CMs). In this study, we propose a WSN centre clustering mechanism (CCM) to improve the network topology stability, assist SNs within the working area, and take advantage of message exchanges.

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