









protocol in the WSN, the intra-cluster nodes were taken as the input layer neurons of the SOFM neural network, while the cluster head nodes, relying on the SOFM neural network, classify the data and extract data features, and then send the feature data to the sink node, thereby reducing the transmission load and energy consumption. Through a simulation experiment, it is proved that the proposed SOFMDA can effectively reduce the transmission volume through the classification of original data and the extraction of similar data features. The research findings shed new light on energy reduction, channel pressure relief, channel utilization improvement and service life extension of WSNs.

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