

Stable transmission trees for mobile sink in rectangular wireless sensor network

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In wireless sensor network WSN, data are collected at each node and transmitted to one node called a sink or a base station. The neighboring nodes around sink relay data more often, resultantly first dry out energy. Such situation is notorious as a hot spot problem. As one solution, a mobile sink has been researched and shown effective. In the last SE conference here, we dealt with mobile sink in grid structure WSN. There we proposed in-tree set termed stable transmission trees which provide the least difference sum among neighboring in-trees in one round trip along the boundary of WSN. In this talk, we relax two conditions. The first is the structure of WSN from grid to rectangular. The second is sink mobility from the boundary to the inside. We show how our proposal in-trees are effective in such WSN.

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