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Maximum data Extraction in Energy Constraint Wireless Sensor

Network

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Abstract: It has been observed from literature that Wireless Sensor Networks (WSN) find wide applications indefence environmental monitoring like temperature, vibration, pressure, moisture, industrial monitoring, medical monitoring, habitat surveillance etc. The application of WSN consists of small sensor nodes that are low cost, low -power and multi-functional. The most important task of WSN is to send the collected data to the sink node and maximize the energy consumed during data transport. usually the sensors used in the networks are energy limited and many energy constraints like, node failure, dynamic traffic load are present. So far any application it is necessary to consider the node constraints. The performance of wireless sensor network is affected mainly by the uncertainty present in the environment. There are various source of uncertainty that may affect the sensor networks operation in the real time applications. The uncertainty may be due to distance between the nodes, communication channel etc. Apart from minimizing energy consumption, another problem is minimizing the data extracted to the sink node. This paper proposes an optimization of distance uncertainty for maximizing the data extraction problem. Genetic Algorithm is used to optimize this problem.