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Abstract

Energy depletion in Wireless Sensor Network (WSN) is one of the most focused research area in wireless network which is yet to witness a potentially significant mitigation techniques for ensuring substantial energy preservation. Owing to the resource constraints as well as low computational capability of the sensor mote, usually the existing energy conservation techniques finds its quite challenging to encapsulate variables of entire problem space. Hence, for the purpose of better mathematical formulation for energy efficiency solutions, it is necessary that all the real-time constraints should be empirically considered. Therefore, this paper presents a novel optimization technique that ensures sustainance of optimal network lifetime in large scale WSN considering the real-time dynamics. The outcome accomplished from the study is compared with standard and most frequently adopted energy-efficient hierarchical routing algorithm to find that proposed system meets better criteria of energy preservation in large scale network.

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Index Terms

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Keywords

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