

## 一种能量有效的三维传感器网络覆盖控制算法

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摘要：

由于无线传感器网络节点部署是随机的而且数量巨大，会产生很多冗余的节点，因而对网络进行覆盖控制提高冗余节点的利用率就成为一个亟待解决的问题。针对无线传感器网络中的三维覆盖问题进行了深入的研究，提出了一种分布式能量有效的三维覆盖控制算法，并利用OPNET网络仿真软件对其性能进行了验证

关键词：无线传感器网络（WSN）；覆盖；三维；能量有效

## An Energy Efficient Three-dimensional Coverage Control Algorithm for Wireless Sensor Networks

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**Abstract:**

In wireless sensor networks (WSNs), a large number of sensor nodes are randomly deployed. Thus many redundant nodes are generated. The coverage control of the network and utilization of redundant nodes become an important problem in WSN. In this paper, the coverage problem is studied and a distributed energy efficient three-dimensional coverage control algorithm is proposed. The performance of the proposed algorithm is simulated using OPNET.

**Keywords:** wireless sensor network (WSN); coverage; three-dimensional; energy efficient

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