DETERMINISTIC DEPLOYMENT for DIRECTIONAL SENSOR NODES

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Submitted: Sep. 3, 2016 ***Accepted: Nov. 6, 2016*** ***Published: Dec. 1, 2016***

Abstract- Node deployment is the key problem of wireless sensor network technology in application. The existing study on deployment of deterministic perceived nodes is simplified to the randomly deployment. In this paper, we take the effective coverage, connectivity and probability threshold as the evaluation indices to analyze the different deployment models. Experimental results demonstrate that the effective coverage area of the triangle deployment is the largest when using the same number of nodes; and if the probability is less than limits, tile deployment does not need to increase the node to ensure coverage. The research results of this paper provide an important reference for the deployment of the directional sensor networks with the given parameters.

Index terms*: Deterministic deployment, directional sensor nodes, probability model.*