Abstract

In the Wireless Sensor Networks (WSN) literature the connectivity restoration among deployed sensors is a well-known problem. In this paper, a solution called FeSTA is approached, which is deterministic and iterates over a list of triangles composed of the initial sensors (terminals) of an initially disconnected network. FeSTA seeks for the positioning of a set of extra relay nodes, while minimizing the quantity of such sensors, in order to change the initial disconnected network state to a connected one. In this work, the object of study is the effect of changing the originally proposed list of triangles to the Delaunay triangulation. It is shown that the effect on the measures such as number of employed relay nodes remains almost unchanged, while the number of processed triangles drops considerably.

References

1. Michael William Chorzempa. Key management for wireless sensor networks in hostile
environments. 2006.


Index Terms

Computer Science

Algorithms

Keywords

Triangulation, Delaunay, Optimization