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Deployment Algorithm of Localised Movement- Assisted Sensor For Hole Detection And Healing

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Abstract: The important service provided by wireless sensor network (WSN) is monitoring of specified region of interest(ROI). The hole in WSN is unavoidable due to inner nature of WSN. This paper seeks to address the problem of hole detection and healing in mobile WSNs. The four key elements for effective coverage is: 1) boundary detection of ROI, 2) detecting coverage holes, 3)best target location for the parent node to repair the holes, 4) minimising the movement of parent node and messaging cost. We propose a comprehensive solution called HEALING. It operates in two distinct phases. The first identifies boundary nodes and discovers holes. The second treats the hole healing with novel concept.