Abstract

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Our experiences at the application scenarios show a common theme - a) the sensing points are well defined, but need to set up an optimal relay placement strategy, b) the data communication is with the sensors as the sink and vice versa, and c) the network has to have representations of immediate value. Our research in each of these three aspects forms the rest of the thesis.

The extant literature in deployment support of wireless sensor network is largely focused on

We present a practical, optimal deployment scheme that develops the network topology using the received signal strength indication (RSSI) and thus takes into account the actual radio profile of the deployment area. Our deployment scheme also adheres to rules on fault tolerance, constrained locations and scalability. In this way, our scheme is

programming [illegible]

existing routing algorithms, like Ad-hoc On-demand Distance Vector (AODV) are extremely

Since our algorithm has inbuilt support for fault tolerance and can support any network topology.

Methodology:

- A routing framework using properties of AODV and network hierarchy.
- Three algorithms designed using the framework – deterministic, probabilistic and

node wireless sensor network for a period of 100 hours. The deployment [illegible]

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