WIRELESS ZIGBEE NETWORK CLUSTER - CAPACITY CALCULATION AND SECURE DATA CONVEYANCE USING INDEGREE

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Abstract- A tree topology is used to construct to construct a Zigbee networks practices by wireless sensor network for data delivery applications. There are 3 types of nodes in zigbee networks; coordinator, router and mobile end devices. Coordinator performs the initialization and maintenance functions in the network. A router is responsible for routing data between the coordinator and mobile end device. In-order to avoid the delivery failures occurs due to node movements and network topology changes, the existing system collect and analyze data about device movement and gives Zigbee node deployment and tree construction framework, which uses three algorithms ZND(zigbee node deployment), ZCD(zigbee coordinator decision) and ZTC(zigbee tree construction). In the proposed system we improve the data delivery by introducing the capacity calculation. If any two nodes have same number of indegree or out-degree, we select the node with maximum capacity.

**Index terms*: Mobility robustness, tree topologies, ZigBee wireless networks, Network Clusters.*