

Design and Implementation of Active Radio Frequency Identification on Wireless Sensor Network-Based System

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Abstract : Wireless sensors, also known as wireless sensor nodes, have been making a significant impact on human daily life. The Radio Frequency Identification (RFID) and Wireless Sensor Network (WSN) are two complementary technologies; hence, an integrated implementation of these technologies expands the overall functionality in obtaining long-range and real-time information on the location and properties of objects and people. An approach for integrating ZigBee and RFID networks is proposed in this paper, to create an energy-efficient network improved by the benefits of combining ZigBee and RFID architecture. Furthermore, the compatibility and requirements of the ZigBee device and communication links in the typical RFID system which is presented with the real world experiment on the capabilities of the proposed RFID system.

Keywords : mesh network, RFID, wireless sensor network, zigbee

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