Zigbee based attendance alert system with person details by using i-button technology

**ABSTARCT**

**Aim:** aim of this project is maintain attendance for the students/employees in wireless mode by using i-button and zigbee.

**Description :**

The I-Button is a computer chip enclosed in a 16mm thick stainless steel can. Because of this unique and durable container, up-to-date information can travel with a person or object anywhere they go. these i-buttons we will provide the security for each and every person of our organization or industry. This i-button technology is no where implemented in INDIA.

Whenever the employee enters into the office, he has to keep his i-button to the reader which is attached to our microcontroller based embedded board. At that moment the employee has to enter the password through the keyboard interfaced with the microcontroller. The predefined passwords which are given to the employees are stored in EEPROM. The microcontroller compares the password entered with the passwords stored in EEPROM. If the password matches then the employee’s name will be transmitted using zigbee. As soon as the information is received by the receiver through zigbee the microcontroller reads the time from the real time clock and stores the employee’s name and time in EEPROM and displays the same on the LCD.

**3.1 Block Diagram**

**RPS**

**Zigbee**

**MICROCONTROLLER**

**AT89S52**

**I - BUTTON**

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**crystal**

**EEPROM**

**Zigbee**

**MICROCONTROLLER**

**AT89S52**

**LCD 16×2**

**RPS**

**DS1307**

**switch**

**EEPROM**

**crystal**

**SOFTWARE:**

Embedded ‘C’

RIDE to write code

ISP to burn the chip

**HARDWARE:**

At89s52 based our own developed board

Power Supply

Zigbee

i-button

keypad

LCD

**ADVANTAGES:** Low cost, automated operation, Low Power consumption.

**REFERENCES**

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5. Embedded systems with 8051 by kenith j ayala