

Intelligent Wireless Patient Monitoring and Tracking System

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Abstract : Our system is to monitor the human body temperature, blood pressure (BP), Pulse Rate and ECG and tracking the patient location. In our system the body temperature is detected by using LM35 temperature sensor, blood pressure is detected by the BP sensor, pulse rate is detected by the ear plug pulse sensor and the ECG is detected by the three lead ECG sensor in the working environment of the patient. The sensed information is sent to the PIC16F877 microcontroller through signal conditioning circuit. A desired amount of sensor value is set and if it is exceeded preliminary steps should be taken by indication by buzzer. The sensor information will be transmitted from the patient unit to the main controller unit with the help of Zigbee communication medium which is connected with the microcontrollers in the both units. The main controller unit will send those sensor data as well as the location of that patient by the help of GPS module to the observer/doctor. The observer/doctor can receive the SMS sent by GSM module and further decision can be taken. The message is sent to a cell phone using global system mobile (GSM) Modem. MAX232 acts as a driver between microcontroller and modem.

Keywords : LM35, heart beat sensor, ECG Sensor, BP Sensor, Zigbee module, GSM module, GPS module, PIC16F877A microcontroller

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