



RESEARCH ARTICLE

A ZIG-BEE BASED WEARABLE HEALTH MONITORING SYSTEM

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ABSTRACT –

The design and development of a ZigBee based smart noninvasive wearable health monitoring system with effective communication has been developed and reported in this paper which includes GSM technology. Health care plays an important role in humans life. Health care monitoring involves care and regular updates about the diseased. The ageing population will lead to increased healthcare cost as care for the elderly is much more expensive than that of other age groups. The physiological parameters are monitored using different sensors like temperature sensor, impact sensor, heart rate sensor. These sensors are used to measure the vital signs in human body. LM35 series are precision integrated-circuit temperature sensors, whose output voltage is linearly proportional to the Celsius (Centigrade) temperature. LM35 is suitable for remote applications and low cost due to water-level trimming. An accelerometer measures acceleration forces, these forces may be static, like the constant force of gravity pulling at our feet, or they could be dynamic, caused by moving or vibrating the accelerometer. Heart rate sensor consist of an infrared led transmitter and an infrared photo transistor receiver which is connected to microcontroller and then to LCD. ZigBee which is reliable supports large number of nodes, with very long battery life and low cost of this device will help to lower the cost of health monitoring both in home and hospital.

Index Terms - Health monitoring, aged people, wireless sensors, ZigBee, GSM

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