

Design of PATIENT HEALTH MONITORING USING ZigBee

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Lahore in partial fulfillment of the requirements for the Degree
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In

Electrical Engineering.

Project Advisor

Department of Electrical Engineering

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DECLARATION

I declare that the work demonstrated in this thesis is unique, except where unequivocally stated otherwise. Furthermore, this work has not been provided to obtain another degree or professional experience.

Signed: _____

Date: _____

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ABSTRACT:

Patient concerns in hospitals are rising sky high day in and day out. Patients need exponential care which requires constant checkup. It has become awfully hard for doctors to reach every patient and acquire their daily updates. More time is constrained in this manner. The most important segment is that during severe conditions, doctor's should acquire the instant report and status of the patients. For this reason, there must be an organized system where doctors can easily determine that which patient eminently requires more care. The main ambition of this project is to develop a system where a patient's vitals can be supervised spontaneously. Such a system is capable of providing pragmatic support and effectiveness in hospitals. Furthermore, this might help for an initiative to bring about a revolution in medical milieu.

SEGMENT 1

INITIATION

1.1 OVERVIEW:

ZigBee has high transmission rate with abate power usage. It can be used where there is an inter-erupted sort of work. The patient health monitoring system based on ZigBee protocol will help in modern biotechnologies. It will give a more stable and continuous examination of candidates.

“A wireless sensor system is proposed in these articles and is related to patient health monitoring. The main theme of this project is to provide status of patient’s pulses as well as bio-signals like ECG, heart beat pulse, body temperature and the weight of the monitored person. This system receives data and from sensor through Arduino and send it wirelessly to the doctors monitoring window through ZigBee interfacing.”(Becher, 2010)

“Furthermore, a monitoring system which calibrates, analyzes and saves various corporal variables of a patient and transmits them to a server via TCP/IPis proposed in this system.”(Tia Gao, 2008)

1.2 MOTIVATION:

Idea generates inspiration whereas inspiration leads to motivation.This motivation was achieved by us during the recent attack at the WAHDAT road garden due to which JINNAH hospital was crowded with humongous amount of patients and due to affluent technology resources many severe patients were not treated appropriately. There was no immediate procedure or equipment through which the patient can be examined thoroughly. The patient health monitoring device (through ZigBee) can help doctors to check multiple patients’ vitals at the same time without any inconvenience. This system consumes minuscule time and is advanced from the previous systems which consist of enhanced wiring network where patients can be provided automated monitoring.