

Support Intelligent Health System Monitor Elderly

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ABSTRACT:

The use of information technology and communication (ICT) to provide medical information, and interactions between patients and health professionals, institutions to institution data transmission, well known in the field of e-health. It

becomes ICT and inseparable part of our lives, and this can be incorporated into health care more easily in daily life. TIC able to provide accurate medical information anytime anywhere efficiency way. Cardiovascular disease is the leading cause of death, especially in the elderly. If the heart is controlled by electrolysis (ECG). The electrolysis (ECG) is used in a large

scale clinical tool for the diagnosis of heart complex diseases. In health centers, and uses a resting ECG to monitor patients. Based Holter, portable monitoring solutions able to record ECG 24 to 48 hours, lack the ability to provide any information in real time if the situation is alarming. The recorded ECG data are analyzed by a doctor. To address this question, the authors suggest

The role of intelligence resolution support in the cardiac monitoring system. The proposed system has the ability to generate a warning in the event of a serious anomaly in the heart, by monitoring heart activity

INTRODUCTION:



Sensor networks and wireless sensors differ from Traditional networks and computers and networks Thus, the challenges in solving this limited power, Restricting the time of life, and so continuous monitoring of vital signs Highlight the possibility of designing management warning Cost efficiency, portability and the ability to lead. Forcing many older people to live with their country Children, or any other home or in any other country living protected Arrangements. Older people want to live independently And keep control of their own lives. At the same time I know there is a high risk of injury or death Because strokes. Such people should be at the point Continuous monitoring and immediate availability medical Attention and help when needed. As a result, there You need to rest and flexible, accurate and non-invasive, Reliable monitoring system inexpensive linking all these Demands. The transmission of vital signs in nursing homes and Hospitals generally transported wirelessly. Parameters can be In a variety of emergency messages and has regularly Information. While the information may be routinely possessed Stored and transported and a certain period of time, and the need for Messages should be sent immediately.

Transfer trajectory parameters can be divided into two types and outdoor Internal. Technology, a wireless networks in large scale (WWAN) is used outdoors for the transfer, and the wireless mesh network (WMN) is responsible for the cover Go. Continuously patient is monitored by sensors It is the temperature sensor (LM35), and acceleration unit Heart rate sensor. Which it will be processed in the data and the combination In ATmega16 microcontroller serial data will be Posted by wireless modules. If the patient is subject to Distress or any abnormality and this easy system to detect and Intima hospitals. The information will be forwarded Wirelessly with the host PC at a time You will be in danger immediate help. This system consists of electronic devices that will be Many of the inputs from sensors such as body temperature, heart rate, Body movements to measure physiological parameters The patients. Because the sensor inputs to the microcontroller Integrate and address inputs.manufactured inputs for I transmitted serially through ZigBee and Bluetooth module Contained in the required data onthe host computer to a patient Monitoring. Data is stored in the database system The measured values are displayed on the

computer using The graphical user interface (GUI) running on the computer. Continuous data are automatically updated Equipment. If the patient is subject to no abnormality Health This system detects and easily send information For the receiving unit, while alarm will be created.

EXISTING METHOD:

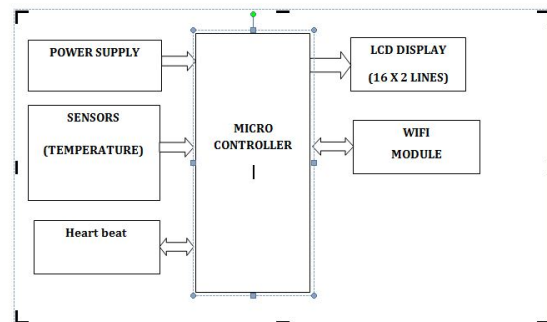
In the previous existing method PC devices used as data acquisition (DAQ) systems we are able to collect vital information about the elderly patients remotely. Existed system which monitors temperature & pulse rate of different patients and immediate action is taken using Bluetooth technology.

PROPOSED METHOD:

The Mobile Hub has many attractive features cheaper price, portable, location awareness, inbuilt touch screen , however on the other side it has also significant limitations compared to a full PC hardware like limited CPU power, memory, storage size and external interface connection support, The Mobile Hub is targeting different functionalities compared to the Home Hub solution due to the smaller screen size and fewer hardware interfaces, and it can extend the usability with

additional special features, such as mobility, location awareness and small size. The system collects data from different biological variables of the human body such as temperature, blood oxygen level, heart rate, body position, and even electro cardiogram signals. This prototype also uses mobile communication (i.e., GSM/GPRS) to send alerts and concentrate data at a Web server . In a sudden panic situation an alarm can be activated manually (by the patient) or automatically (by e.g. the accelerometer) with the mobile device. When an alarm signal initiated the central dispatcher is able to acquire location information (based on GSM/GPRS cell information) immediately.

BLOCK DIAGRAM:



WI-FI:

General Description The RTX4140 Wi-Fi Module is a small form-factor, single stream, 802.11b/g/n Wi-Fi module with on-board low power application processor. It is targeted at applications that send infrequent data packets



over the network. Typically, these 802.11 applications will place a higher priority on system cost, power consumption, ease of use, and fast wakeup times as compared to high throughput. The RTX4140 has been optimized for client applications in the home, enterprise, smart grid, home automation and control that have lower data rates and transmit or receive data on an infrequent basis. The RTX4140 Wi-Fi Module also enables rapid application development of ultra low power devices with the complete application SW on-chip (battery or mains powered devices). The module utilizes the combination of the energy friendly Energy Micro Gecko EFM32GG230F1024 microcontroller and the flexible low power single stream Atheros AR4100 Wi-Fi (b/g/n) SiP. This combination makes the RTX4140 Wi-Fi Module an ideal solution for low power automation and sensor solutions because of its high efficiency and low power consumption. Current consumption with the application processor active with an OS tick results in a current consumption of a few μA . In this mode the application processor can monitor peripherals such as eg. sensors. Furthermore, due to the encryption capabilities of the module, it is also suitable for security applications. The RTX4140 Wi-Fi Module integrates all Wi-Fi functionality into a low-profile, 18 mm x 30 mm SMT module package that can be easily mounted on a low-cost main PCB with application specific circuits. The RTX4140 Wi-

Fi Module supports a development platform that reduces development time through multiple interfaces and power supply options. The reference hardware, showing an application example using the RTX4140 module, is designed to reduce design efforts by supporting a the necessary development interfaces, sensor interfaces etc. Furthermore, developers can also choose from a wide range of different software packages and reference applications with well-documented API's. The RTX4140 Wi-Fi Module can be used to design applications using 802.11b/g/n communication protocols. The module includes an integrated antenna. Variants for connecting external antenna consist of U.fl and via edge connector. The module offers, via edge connectors, a flexible interface to the carrier board. This interface includes power supply pins, ADC ports, DAC ports, analog comparator, GPIO ports, SPI, I2C and UART ports.

TEMPERATURE SENSOR:

The LM35 series are precision integrated-circuit temperature sensors, whose output voltage is linearly proportional to the Celsius (Centigrade) temperature. The LM35 thus has an advantage over linear temperature sensors calibrated in Kelvin, as the user is not required to subtract a large constant voltage from its output to obtain convenient centigrade scaling. The LM35 does not require any external calibration or trimming to provide typical accuracies of $\pm 1/4^\circ\text{C}$ at room



temperature and $\pm 3/4^{\circ}\text{C}$ over a full -55 to $+150^{\circ}\text{C}$ temperature range. Low cost is assured by trimming and calibration at the wafer level. The LM35's low output impedance, linear output, and precise inherent calibration make interfacing to readout or control circuitry especially easy. It can be used with single power supplies, or with plus and minus supplies. As it draws only $60\ \mu\text{A}$ from its supply, it has very low self-heating, less than 0.1°C in still air. The LM35 is rated to operate over a -55° to $+150^{\circ}\text{C}$ temperature range, while the LM35C is rated for a -40° to $+110^{\circ}\text{C}$ range (-10° with improved accuracy). The LM35 series is available packaged plastic TO-92 transistor package. The LM35D is also available in an 8-lead surface mount small outline package and a plastic TO-220 package.

CONCLUSION:

Therefore, this system is used as a high quality medical Application to monitor the patient's vital signs continuously. Data navigate through the wireless module to the receiver The unit of health care. The system works reliably successful, portable and low cost.

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