International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 02, 2020
ISSN: 1475-7192

Working of heart beat touch sensor

[1]S. Rohith, [2]R. Puviarasi

Abstract--*Patient care is done through the presence of doctor. But he can't be there for everyone in one time to provide medications and treatment for people. Therefore constant observance of a patient is that the correct one. However the facility or accessibility for people in that net particular geographic area. Therefore this impressed North American nation decided to use different kinds of module for the system what we have goanna to do. That method which is employed, used, for the people to check or verify their parameters like heart beat Count. And we can intimate to the doctor whether there is any problem, and send the known knowledge with the doctor. IR based heart beat sensor can be contained in the system. This project or system can able to counter find the heart rate by that system. The price of the device can be decided what type of components or devices we have been used in this project.*

KEYWORDWS*-- Working of heart beat touch sensor*

I INTRODUCTION

The main aim or concept behind in this project is to create a operating paradigm of the helpful wireless device for people which is use a lot to them. This device or system will confirmatively observe the pulse of people who are suffered with the unknown problems [1-2]. The device can make communicate with a mobile during any problem through which we can customize and alert mechanism. Through GSM Module we can communicate with the device and the mobile. The main important components of the device are heartbeat sensing element, Arduino, alphanumeric display & GSM Module. Once the finger is placed on the heartbeat sensing element, sensor will send the digital signals as output of this project [3-5]. From that output signals the LED will glows and it will off continuously due to that signals sent by the heart beat sensor or either we can use Arduino Uno to measure Beats per Minute (BPM) rate. The output of this project will depend on the touch of the hand to the heart beat sensor.

Inside the sensing element that means in the heart beat sensing element. It consists of an excellent bright red diode and a detector. The diode used in this project must beam super bright as most light-weighted, when that sensor touched by the finger and detected by the detector [6-9]. When blood is flowing through the blood vessels which was pumped by the heart, finger becomes slightly the nerves will move and then it reached the detector. Due to the pumping of the blood we can know the working of this device.

The change in the above signals leads that it has to regenerate the pulse. Signal is amplified Associate in Nursing triggered through electronic equipment which outputs +5V logic level signal. The signalling is also indicated by a diode that blinks on every heart beat Output of the sensing element is digital & is directly connected to the digital a hundred and ten pin of Arduino Uno board. Here in this heart beat sensor we are goanna using the

[1]*S. Rohith, Saveeth School of Engineering, SIMATS, Chennai, India.*

[2]*R. Puviarasi, Saveeth School of Engineering, SIMATS, Chennai, India, Email: puviarasi88@gmail.com*

Received: 23 Dec 2019 | Revised: 05 Jan 2020 | Accepted: 27 Feb 2020

IR sensor and for the signals there will beam transmitter and receiver. We can also use a buzzer in this project for better results for the sick people. In some places there are no sufficient health centres or hospitals. To take care of them they need to overcome all this health based problems. So that the digital based heart beat sensor will help them more from the problems caused by the respiration.

II METHODOLOGY

The block diagram of the proposed system is shown in figure. 1.

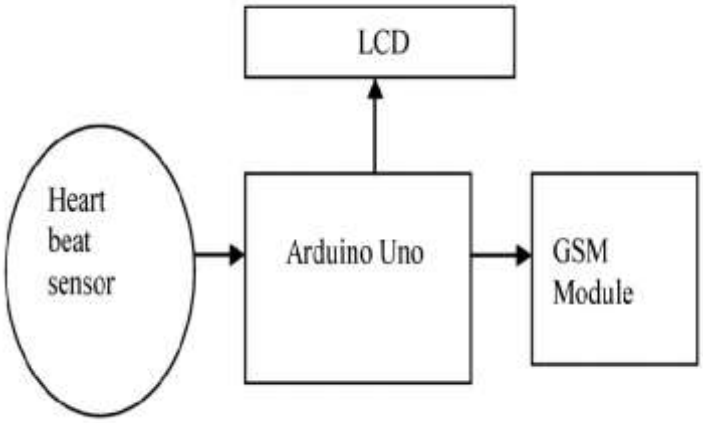

Figure 1: Block diagram of proposed methodology

To understand it in an easy way divided into 3 categories

1. Measurement unit
2. Processing unit
3. Communication unit

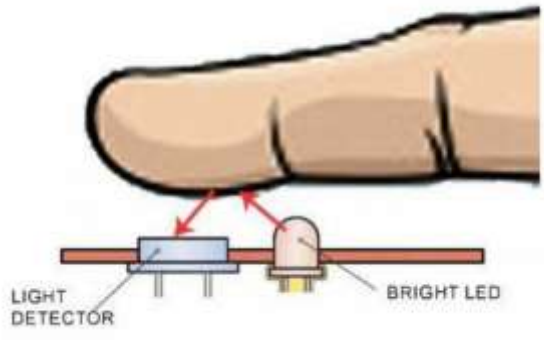

Figure 2: Sensor Detection

Received: 23 Dec 2019 | Revised: 05 Jan 2020 | Accepted: 27 Feb 2020

Here in this project communication can be done between Arduino & module. In this project the Arduino board, it consists of pins for the transmitting receiving of knowledge for the module communication. The information what or which were sent by the Arduino Uno board can be used for the transmitting the knowledge between module and the cellular phone as shown in figure. 2. We can communicate from Arduino alphanumeric display. The digital pins are connected to knowledge the info the detection pins of alphanumeric display to send data of the signals of the output. Potentiometer is also a device has been accustomed set distinction of the alphanumeric display. Show LCD digital display is obtaining instant display in the absence of GSM network. Here for this project we can insert a digital display as shown in figure. 3. through we can identify the or find easily the count of the heart beat, either we can know easily whether the count of heart beat is in normal condition or not. With the help of this digital display no need to depend on the doctor for simple reasons.

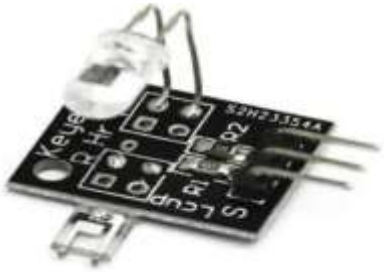

Figure 3: Display system

Uncertainty Respiration is an crucial and as well as more confidential matter and a physiological signal particularly for the human beings and also the animals. Mainly for those like athletes and sports men and women. They have to work hard so that they need fitness, for that sake they run every day. Also for the elder people they have the problems of respiration. This parameter will facilitate and help the athletes to monitor the heart beat. With that they can check their health conditions throughout coaching. So as to maximise their potential and the result of coaching it will be helpful to the athletes. As well as to the old people for each and every time they cannot go and visit the hospital for the sake of respiration problems.

When the project is digital display then only the product can be useful to each and every person. Additionally there is a more valuable menstruation for the first identification of metastasis diseases like respiratory illness. Some of the researchers, researched a lot and style a resistive detector that can do better things to keep the society clean and green. The diode used in this project must beam super bright as most light-weighted, when that sensor touched by the finger and detected by the detector. When blood is flowing through the blood vessels Which was pumped by the heart, finger becomes slightly the nerves will move and then it reached the detector. Due to the pumping of the blood we can know the working of this device.

III RESULTS

By providing a health and good quality, and timely health help for aged people may be a growing concern of each and it is the main aim of the so many nations. Although there are so many hospitals are there in a square measure advanced hospitals and care centers for aged, undeniable fact that lot of in this society are suffering from heart problems and after that they need continuous observance of their physical parameters. Moreover majority of the people said that digital display heart beat touch sensor is more effective and as well as good to use. In such a situation this system may be terribly effective. It will work at home setting also. Therefore this device will be great device to elderly society by aiding them in obtaining quality help at their own homes.

REFERENCES

1. SudipanSaha, SutasomBhaumik "SMS Based Wireless Global Range Automation & Security System" IEMCON,2011.
2. B. Ramamurhy , S. Bhargavi, and R. ShashiKumar "Development Of a Low-Cost GSM SMS-Based Humidity Remote Monitoring and Controlling System for Industrial Applications," IJACSA, vol.1, no. 4, 2010.
3. Deepak Krishnan, M. Unnikrishnan, Vineeth Radhakrishnan, C. Denny Jacob, K. S. Akhil, "Wireless gadget for Home Bound Patients," using IEEE Standard 1073 for Medical Device Communications 15th 201I.
4. Nitika "Multimesseging system using GSM modem," IJAEST, vol. 11, no.1, pp. 157-161.
5. Balan B, Tech M. "Sensor based smart agriculture using IOT," International Journal of MC Square Scientific Research, vol. 9, no. 2, 2017.
6. KarandeepMalhi, Subhas Chandra Mukhopadhyoy "A Zigbee-Based Wearable Physiological Parameters Monitoring System," IEEE, vol.12, no. 3, 2012.
7. Details ofIR Base Hear Rate Sensor www.sunrom.com
8. Arduino Uno data sheet www.arduino
9. Y. Qiao, Y. Wang, H. Tian, M. Li, J. Jian, and Y. Wei, et al., "Multilayer Graphene Epidermal Electronic Skin," ACS Nano, 2018.

Received: 23 Dec 2019 | Revised: 05 Jan 2020 | Accepted: 27 Feb 2020