HEALTH MONITRING SYSTEM USING SEVEN SEGMENT DISPLAY OR ATMEGA MICROCONTROLLER

Presented by:-

Tejal kurkure

Shubhangi Wankhede

Diksha Yadnik

Prnali patil

LITERATURE SURVEY PAPER 1

- **International Journal of Scientific Research and Review ISSN No.: 2279-543X Volume 07, Issue 04, April 2019 UGC Journal No.: 64650 314**

Sensor is Photoplethysmograph. According to this principle, the change in the volume of blood in an organ is measured by the changes in the intensity of the light passing through that organ. Usually, the source of light in a heartbeat sensor would be an IR LED and the detector would be any Photo Detector like a Photo Diode, an LDR (Light Dependent Resistor) or a Photo Transistor. With these two i.e. a light source and a detector, we can arrange them in two ways: A Transmissive Sensor and a Reflective Sensor. In a Transmissive Sensor, the light source and the detector are place facing each other and the finger of the person must be placed in between the transmitter and receiver. Reflective Sensor, on the other hand, has the light source and the detector adjacent to each other and the finger of the person must be placed in front of the sensor.

LITERATURE SURVEY PAPER 2

- **International Journal of Pure Volume 117 No. 17 2017, 249-254 ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version)**

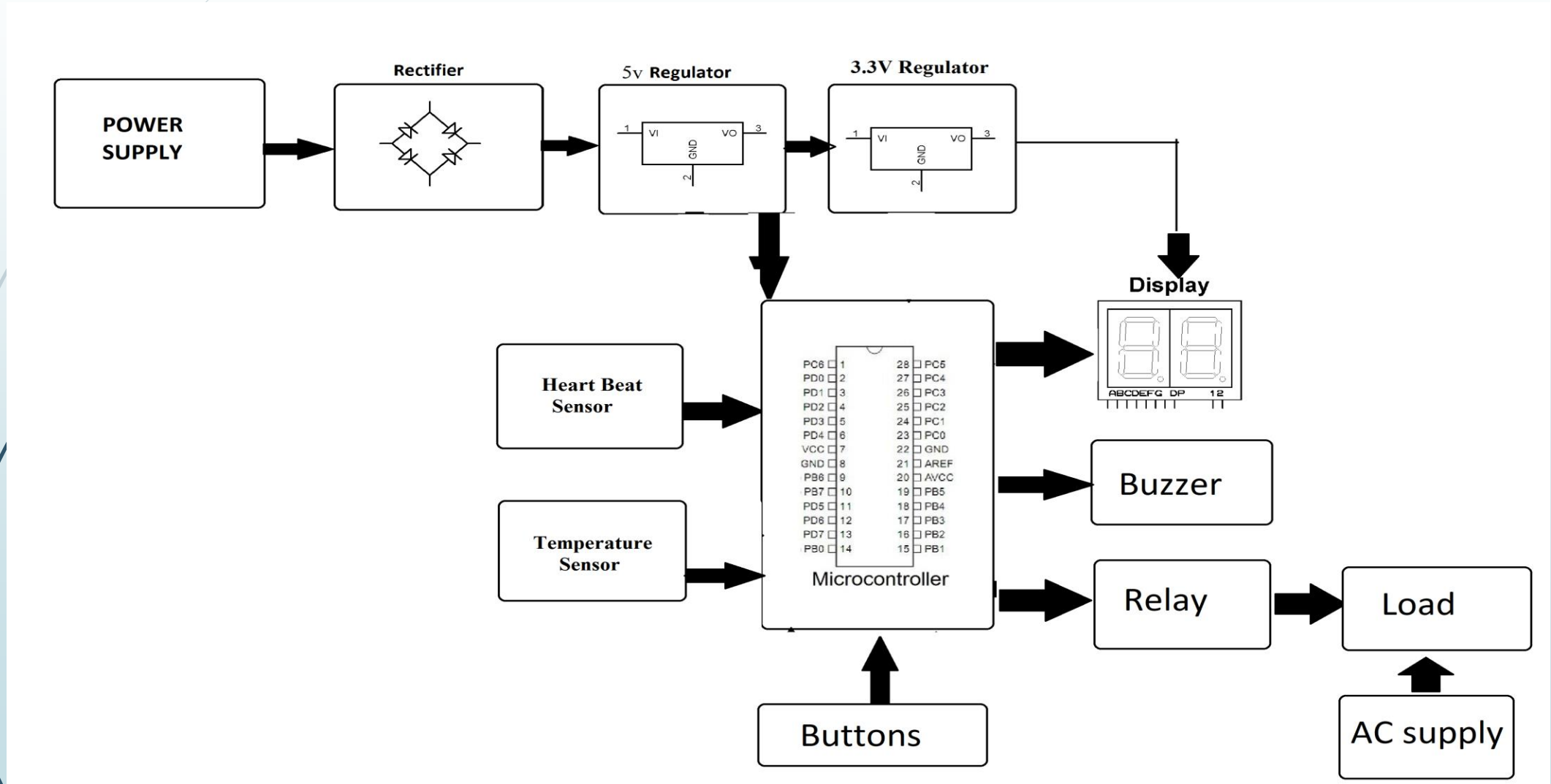
In present day, people are suffering from various kinds of disease and many health problems such as CHF (Chronic Heart Failure) is commonly seen in elderly persons. CHF is a cause of hospital admission particularly for older adults reaching a prevalence of 1.3%, 1.5, and 8.4% in 55-64 year old, 64-74 year, and 75 years or older segment respectively. Hospital stuffs face severe difficulty when they are faced with the task of taking care of multiple patients simultaneously. Problems such as waiting in the queue, travelling time, moving patient, waiting for doctor etc. are some of the issues faced by the patients [1]. During an emergency, the situation might get worse. Monitoring the critical patient 24/7 is very important for reducing life threating risk. Wireless application put the great impact in the health care services. It also reduces operating costs of the hospital. In medical science wireless application has several number of advantages such as, ease of use, reduced risk of infection and enhanced mobility [2]. With the help of wireless system, it is very easy to monitor several patients simultaneously. In this paper, an IOT based health monitoring system has been proposed which is able to perform different types of functions within limits of specified time, accuracy and cost. This IoT base system is cheap and can operate remotely. Biological parameters of patients is detecting by sensors. The use of sensor with Arduino, GPRS and GMS has made the patient monitoring system more effective

LITERATURE SURVEY PAPER 3

- **International Journal of Advance Research in Computer Science and Management Studies, 2(6 … Repal (2015)**

These days various people are losing their life inferable from heart assault and lack of restorative regard for patient at correct stage. Consequently, in this task we are actualizing pulse checking and heart assault acknowledgment framework using IoT. The patient will convey equipment having sensors with android application. The heartbeat sensor will permit monitoring heart beat measures and sending them to the web. The client may set the high and low dimension of heartbeat limits. Once these limits are set the framework can begin observing the patient's pulse and when the heart beat readings go above or beneath the farthest point set by the client the framework will send a caution about high or low heartbeat also about shots of heart assault.

BLOCK DIGRAM



HEART BEAT SENSOR

- The heartbeat sensor is based on the principle of photoplethysmography. It measures the change in volume of blood through any organ of the body which causes a change in the light intensity through that organ (avascular region). In the case of applications where the heart pulse rate is to be monitored, the timing of the pulses is more important. The flow of blood volume is decided by the rate of heart pulses and since light is absorbed by the blood *Heart beat sensor* is designed to give digital output of heat *beat* when a finger is placed on it. When the heart beat detector is working, the beat LED flashes in unison with each heart beat. This digital output can be connected to microcontroller directly to measure the Beats Per Minute (BPM) rate., the signal pulses are equivalent to the heartbeat pulses

TEMPERATURE SENSOR

- A *temperature sensor* is an electronic device that measures the temperature of its environment and converts the input data into electronic data to record, monitor, or signal temperature changes. There are man The basic principle of working of the temperature sensors is the voltage across the diode terminals. If the voltage increases, the temperature also rises, followed by a voltage drop between the transistor terminals of base and emitter in a diode.