**Conclusion:** By seeing the many lives affected due to lack of proper treatment on time and failed to maintain continuous observation,we are intended to change the traditional approch to smart health care system.Internet of Things has many applications in different areas. IoT has been already designed for Wireless sensor network (WSN). It has been developed for health monitoring. This system presents the architecture of IoT and architecture of Smart health monitoring using IoT, by using the IOT Health care monitoring system, the healthcare professionals can monitor, diagnose, and advice their patients all the time. The health conditions data are stored and published. Hence, the healthcare professional can monitor their patients from a remote location at any time. In the designed system the enhancement would be connecting more sensors to internet which measures various other health parameters and would be beneficial for patient monitoring i.e. connecting all the objects to internet for quick and easy access. This health monitoring has a wide range of applications and can save rural and remote area people in emergency conditions.

**WIRELESS SENSOR NETWORKS**

A wireless sensor network is wireless network consisting of spatially distributed autonomous device using sensors to monitor to physical or environmental conditions.

WSN is a network formed by large number of sensor nodes where each node is equipped with a sensor to detect physical phenomenon such a light, heat, sound etc.

**Temperature Sensor (LM35)**

It is used to measure temperature. The LM35 series are precision integrated circuit

temperature sensors, in which output voltage is linearly proportional to the Celsius (Centigrade)

temperature. It measures temperature more accurately than thermistors.

**Heart Beat Sensor**

Heart beat sensor has been designed to give digital output of heat beat when a finger is placed on it. When we place the finger, the LED flashes in unison with each heartbeat. This digital output can be connected to microcontroller directly to measure the Beats Per Minute (BPM) rate. It works on the principle of light modulation by blood flow through finger at each pulse.

**Pulse Oximeter Sensor**

Hardware Description Pulse oximetry is a simple technique to find the amount of haemoglobin. Oximeter measures number of hearts beat per unit of time which is usually conveyed in bits per minute(Bpm). In the project MCP6004 based pulse oximeter is designed and TCRT1000 reflective IR optical sensor is used for photo plethysmography (PPG). Using TCRT1000 simplifies the process since both emitter and detector are arranged side by side. This technique is used to measure heart rate since change in blood volume is synchronous to heart beat.

**ECG Sensor**

ECG electrode sticks to chest to pick up ECG signals. Then wires are connected to AD8232.

This sensor is a cost-effective board used to measure the electrical activity of the heart. ECGs

can be extremely noisy, the AD8232 Single Lead Heart Rate Monitor acts as an op-amp to

help obtain a clear signal from the PR and QT Intervals easily.

**Blood Pressure Sensor(MC1630)**

The sensor is designed to be used with automated assembly equipment and can be dropped directly into a customer's disposable intrauterine housing. The pressure sensor consists of a pressure sensing element mounted on a ceramic substrate. Thick film resistors on the ceramic substrate are laser trimmed for compensation and calibration. A plastic cap is attached to the ceramic substrate to provide an easy method of attachment to the customer’s assembly and protection for the sensing element. A dielectric gel is placed over the sensor to provide fluid isolation.

References:

Punit Gupta, Deepika Agrawal, Jasmeet Chhabra, Pulkit Kumar Dhir, “IoT based Smart HealthCare Kit”, 2016 International Conference on Computational Techniques in Information and Communication Technologies (ICCTICT).