**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM 59014**

****

Internet of ThingsProject Report on

**“HEALTH MONITORING SYSTEM”**

By

**Namratha V (1BM17CS151) Ramyashree B V (1BM18CS416)**

**Sanjay M S (1BM18CS418) Yashita P Jain (1BM17CS152)**

Under the Guidance of

**Antara Roy Choudhury**

Assistant Professor, Department of CSE

BMS College of Engineering

IoT Application Development carried out at

****

DepartmentofComputer Scienceand Engineering

BMS Collegeof Engineering

(Autonomous college under VTU)

P.O. Box No.: 1908, Bull Temple Road, Bangalore-560 019

2019-2020

**BMS College of EngineerinG**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

****

***CERTIFICATE***

This is to certify that the Internet of Things project titled “**HEALTH MONITORING SYSTEM**” has been carried out by **Namratha V (1BM17CS151), Ramyashree B V (1BM18CS416), Sanjay M S (1BM18CS418) and Yashita P Jain (1BM17CS152)** during the academic year 2019-2020.

Signature of the guide

**Antara Roy Choudhury**

Assistant Professor

Department of Computer Science and Engineering

BMS College of Engineering, Bangalore

**Examiners**

**Name Signature**

**1.**

**2.**

**BMS College of EngineerinG**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

****

***DECALARATION***

We, **Namratha V (1BM17CS151), Ramyashree B V (1BM18CS416), Sanjay M S (1BM18CS418) and Yashita P Jain (1BM17CS152)** students of 5thSemester, B.E, Department of Computer Science and Engineering, BMS College of Engineering, Bangalore, hereby declare that, this IoT Application development work entitled " **HEALTH MONITORING SYSTEM** " has been carried out

by us under the guidance of **Antara Roy Choudhury**, Assistant Professor, Department of CSE, BMS College of Engineering, Bangalore during the academic semester Aug-Dec 2019.

We also declare that to the best of our knowledge and belief, the development reported here is not from part of any other report by any other students.

Signature

Namratha V (1BM17CS151)

Ramyashree B V (1BM18CS416)

Sanjay M S (1BM18CS418)

Yashita P Jain (1BM17CS152)

**INTRODUCTION**

Health is one of the global challenges for humanity. In the last decade the healthcare has drawn considerable amount of attention. The prime goal was to develop a reliable patient monitoring system so that the healthcare professionals can monitor the patients, who are either hospitalized or executing their normal daily life activities. Recently, the patient monitoring systems is one of the major advancements because of its improved technology.

Health is always an important concern. However, the health of modern people is always interfered by various potential but dangerous factors, such as high blood pressure, and abnormal heart rate. High blood pressure, also called hypertension, increases the burden of the heart to pump blood circulation in the blood vessels. Hypertension is one of the major risk factors for stroke, myocardial infarction, heart failure aneurysms and peripheral arterial diseases. It is also one of the causes of chronic kidney disease. And a normal resting heart rate for an adult ranges from 60 to 100 beats a minute. Although there’s a wide range of normal, an unusually high or low heart rate may indicate an underlying problem.

In order to monitor health indicators regularly at home, we design a low-cost health monitor system that can measure heart rate and body temperature.

**OBJECTIVE**

Our final project is to design and build a health monitor that can measure heart rate and body temperature and then display the test results on a computer screen. The device is consisted of three major parts: hardware, analog circuit and Raspberry Pi3. The goal is to integrate all the circuit elements, so that all the health indicators can be measured through the sensors.

**LITERATURE SURVEY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No** | **Name of the Project or Product (Existing)** | **Commercial or Non-Commercial** | **Features** |
| **1.** | Automatic Wireless Health Monitoring System | Non-Commercial | The main goal of this project is to monitor the temperature of the patient’s body and display the same to the doctor using RF technology. |
| **2.** |  |  |  |

**1.Automatic Wireless Health Monitoring System**

The main goal of this project is to monitor the temperature of the patient’s body and display the same to the doctor using RF technology**.** The required components used in this system include a power supply, an 8051 microcontroller, a temperature sensor, an RF TX, an RX module and an LCD display. The 8051 microcontrollers are used as a CPU for monitoring the temperature of the patient’s body.

The advantages of the automatic wireless health monitoring system mainly include the following.

* Associating the gap between the patients and the doctor
* Best to be used in rural areas for multipurpose. So that all the conditions are simply measured
* Operation of this device is very simple
* It gives a good performance when we compare it with a compact sensor.

The drawbacks of the automatic wireless health monitoring system :

* The project could have been enhanced by using different parameters such as retinal size, BP, weight etc.
* Advanced technologies like GPS and GSM were not used.
* RF distance and the sensors must be contacted to patients only.

**PROPOSED PROJECT**

Health Monitoring System is a project built to

**Feature and its advantage**

**Hardware and Software Requirements**

**Hardware requirement**

**List the Component used**

**Do cost analysis {separately}**

**Software Requirements**

**OS**

**IDE**

**Any cloud used**

**Design**

**Architectural diagram or Circuit diagram**

**Explanation about your design { interaction between elements}**

**Implementation**

**Steps to be followed to execute your project**

**Source code**

**Result**

**Conclusion**