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Intelligent Web Server Based Health Care Solution System

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Abstract- **This paper proposes a method The IOT can bring multiple benefits to healthcare through the use of sensors, intelligent equipments, etc. The Internet of Things (IoT) is a new concept that allows users to connect various sensors and smart devices to collect real-time data from the environment. In this project our contribution is twofold. Firstly, we critically evaluate the existing literature, which discusses the effective ways to deploy IoT in the field of medical and smart health care. Secondly, we propose a new semantic model for patients' e-Health. The program is written in the python language in the raspberry board. The different data will control the arm rotation.**

Index Terms— **IOT; Raspberry Pi; GPRS; MQ2 Sensor; Gas Detector; Heart Rate Sensor;**

I. INTRODUCTION

Domain of the project web server based health care using Internet of things to get acquired results of patient in real time operation.

IOT is short for Internet of Things: Internet of Things (IOT)refers to the regularly developing system of physicals that highlights an IP address for web availability, and the correspondence that happens between these items and other web empowered gadgets and frameworks.

II. EXISTING METHOD

The medicinal services speak to one of the best difficulties that each nation is confronting today. In spite of the fact that medicinal services industry put intensely in IT, yet the guaranteed change in tolerant security and profitability has not been acknowledged up to the models even today associations still depend on paper therapeutic records and hand return notes to educate hand decide. Computerized data is siloed amongst offices and applications.

III. PROPOSED METHOD

The issues can be solved by designing the project that aims at the development of a process using IOT which is an emerging technology. Here the proposed project uses Wi-Fi technology. The IOT can convey numerous advantages to medicinal services using sensors, wise supplies, and so forth. The Internet of Things (IoT) is another idea that enables clients to associate different sensors and brilliant gadgets to gather ongoing information from nature. In any case, it has been watched that an extensive stage is as yet missing in the e-Health and m-Health designs to utilize Smartphone sensors to detect and transmit essential information identified with a patient's wellbeing. In this undertaking our commitment is twofold. Right off the bat, we basically assess the current writing, which talks about the powerful approaches to send IoT in the field of medicinal and brilliant social insurance. Besides, we propose another semantic model for patients' e-Health. The proposed display named as 'k-Healthcare' makes utilization of 4 layers the sensor layer, the system layer, the Internet layer and the administrations layer. All layers participate with each other viably and proficiently to give a stage to getting to patients' wellbeing information utilizing advanced cells.

IV. SYSTEM ARCHITECTURE

To provide frequent updates of patients on a particular web page using Raspberry Pi with wireless network configuration is used.

A. Block Diagram

Modules: IOT, raspberry pi,GPRS, heart rate sensor ,MQ2 sensor, Mercury sensor and switch with LCD display.

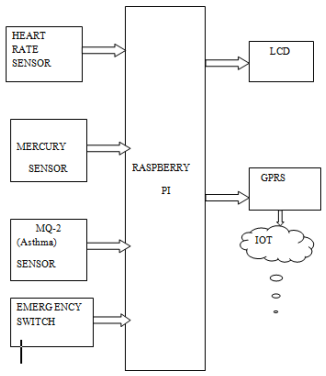

Fig.1: Block Diagram

B. Mercury sensor

Mercury sensor is utilized to quantify the shuddering impression of the patients where the condition is of fever or some other malady manifestation it straightforwardly refreshes the data on the patient's specific website page.

If there is any uncertainty about the outcomes, estimations should be made inside as far as possible:

FIG2: Internal mercury sensor

*C. MQ2 Sensor***:**

Gas MQ2 sensor, it is a universal chemical observer. Asthma indicators are ordinarily housed in a circle formed plastic fenced in area around 150 millimeters (6 in) in measurement and 25 millimeters (1 in) thick, however the shape can shift by maker or product offering.Most smoke identifiers work either by optical discovery (photoelectric) or by physical process (ionization), while others utilize both identification strategies to expand affectability to smoke.

*D. Heart rate Sensor***:**

The heart beat sensor circuit graph contains a light locator and a brilliant red LED. The LED should be of super splendid force since most extreme light passes and spreads if a finger put on the LED is identified by the locator. it monitors the heart rate of patient in a real time method so that the patients result fluctuations can be triggered.

E. Raspberry Pi

ARM Corporation developed ARM is a 32-bit RISC processor structural design ARM processors hold a exclusive amalgamation of features that brands ARM the majority prevalent embedded architecture currently. For instance, while utilizing fifty times less vitality the PXA255 Scale processor seriatim at 400MHz gives show analogous to Pentium 2 at 300MHz.

*F. GPRS***:** General packet radio service**:**

GPRS innovation brings various advantages for clients and system administrators alike finished the fundamental GSM framework.

GPRS offered a noteworthy change in the information exchange limit over existing cell frameworks. It empowered a considerable lot of the principal email and web perusing telephones, for example, PDAs, Blackberries, and so on to be propelled. In like manner GPRS innovation proclaimed the start of another time in cell correspondences where the cell phone capacities permitted essentially more than voice calls and straightforward writings.

V. DESCRIPTION OF THE SYSTEM

This venture utilizes key hazardous parameters observing sensors like heartbeat, asthma, shuddering, crisis mind sensors. These all sensors are join with the pi processor heart beat is a human sensor which measures the beat rate changes of the patient utilizing an infrared red shaft connect with the patient forefinger this sensor utilizes a good for nothing comparator l358 to watch beat rate changes of the patient and include changes beat of the patient consistently this sensor is accurate to the point that even a solitary heartbeat change will be checked and measure.

Asthma sensor (MQ 2) is an advanced sensor which takes breathing perusing of the patient, this sensor is indispensable in light of the fact that in real sicknesses tolerant begin breathing quick and there will be odds of separate risk to the patient life so this will be checked and legitimate prompt or pharmaceutical will be given to spare patient life utilizing the perusing given by the asthma sensor.

Shuddering sensor is utilized to keep a watch of the patient body developments in the event that they are extreme then patient needs appropriate care, this action checking is finished utilizing a mercury level sensor which responds to the body developments of the patient.

SCHEMATIC: The schematic portrayal of sensors to which the Breath investigation sensor is a computerized sensor associated with GPIO of processor.

Crisis switch is as high volt rationale flag produced by associated with Vcc and LED marker.

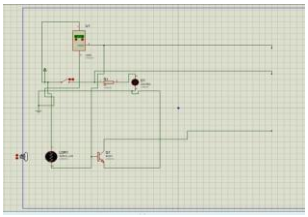

Fig 3: schematic diagram

Shuddering sensor associated with normal producer circuit to create advanced rationale levels about security and un dependability of patients are the sensors are associated with processor.

HARDWARE SNAPHOT

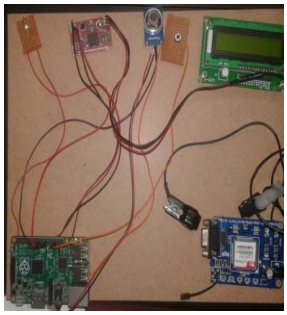

Fig 4: Hardware Snapshot

VI. CONCULSION

The undertaking "Viable approaches to utilize IOT in the field of restorative and brilliant medicinal services" has been effectively planned and tried. It has been created by coordinating highlights of all the equipment parts and programming utilized and tried.

We proposed a novel structure for e-Health and m-Health which makes utilization of advanced mobile phone sensors and body sensors to acquire, process and transmit quiet wellbeing related information to bring together capacity. This put away information could be recovered by patients' and different partners later on. One way could be the plan of a product or advanced cell application which will get the information specifically from the sensors and process it programmed.

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