

LITERATURE SURVEY

Date	29 August 2022
Team ID	PNT2022TMID37064
Project Name	Project - Personal Assistance For Seniors Who Are Self-Reliant Using IoT Technology
Maximum Marks	4 Marks

INTRODUCTION:

My Project is for seniors(elders) Who regularly forget to take their medicine at the correct time and also forget which medicine they should take at particular time. So, We are developing a Medicine remainder system for seniors Using IoT Technology. Here we introduce a smart medicine reminder system based on IoT. The proposed system was particularly created for the Android platform. For our system, we implement a reminder system which provides an alarm when it is time for taking medicine. Along with that, there is an android application where the user can set their medicine time. In the application, there will some feature that help the user to know more details about their medicine. It keeps track for the medicine which means how much medicine they have to take they can be fixed in the application.

GITHUB ACCOUNT:

We have created the github account with our email id in the <https://github.com> website. Github team ID is IBM-EPBL/IBM-Project-40350-1660628509.

IBM CLOUD ACCOUNT:

We have created the IBM Cloud Account using IBM Id's provided by IBM where my IBM cloud Account is 212619104016@smartinternz.com.

INSTALLATION OF IDE'S :

Python IDLE

PRE_REQUISITE:

To complete this project, you must have knowledge of the following: You need to have basic knowledge of the following cloud services:

- IBM Watson IoT Platform
- Node-RED Service
- Cloudant DB

ABSTRACT

Sometimes elderly people forget to take their medicine at the correct time. They also forget which medicine He / She should take at that particular time. And it is difficult for doctors/caretakers to monitor the patients around the clock. To avoid this problem, this medicine reminder system is developed. An app is built for the user (caretaker) which enables him to set the desired time and medicine. These details will be stored in the IBM Cloudant DB. If the medicine time arrives the web application will send the medicine name to the IoT Device through the IBM IoT platform. The device will receive the medicine name and notify the user with voice commands.

1. Dheeraj Muttin, Avinash Harale, “ IOT BASED PERSONAL MEDICAL ASSISTANT SYSTEM” SKN Sinhgad College of Engineering, Pandharpur, India, In IJIRT |October 2021| Volume 8 Issue 5 | ISSN: 2349-6002

Medical field has been considered as a crucial part of human society. With advanced technologies in communication, several public sectors and industries have been equipped with the remote controllable and multiuser based systems. With the discoveries of cloud computing, wireless sensor network, android based systems and Ethernet connectivity, users can control the automated systems from any place in the world. This paper mainly focuses IoT based personal medical assistant system.

2. Sultan Ahmad, Mahamudul Hasan, Gouse Pasha Mohammed, Mohammad Shahabuddin, Tasnia Tabassum, Mustafa Wasif Allvi “IOT BASED PILL REMINDER AND MONITORING SYSTEM” Department of Computer Science, College of Computer Engineering and Sciences, Prince Sattam Bin Abdulaziz University, Al-Kharj, Saudi Arabia in International Journal of Computer Science and Network Security (IJCSNS) VOL.20 No.7, July 2020

There are many people around us who are the victims of chronic disease. Most of them suffering from dementia. Some people overlook to take care of health. Because of the lack of an expert system, people are forced to submit in frequent health related problems. By analyzing the data, an internet of things (IoT) based reminder system has been developed. It is designed to assist the patient who forgets to take medicine. The proposed system consists of an IoT enabled device and an android application. It mainly focuses on dementia patient. But it is beneficial for all. Patients will no longer have to worry about daily medication. The application will send a notification when it's time to take medicine. The mobile application is used for

keeping the record in medicine details and reminding the schedule of medicine. We have used the IoT enabled Arduino device for monitoring the whole system. The device can sense whether a patient has taken medicine or not with the help of the infrared (IR) sensor. We have tried to develop a system which will help patients to manage their health care properly.

3. Abhishek Madankar, Akhilesh Agrawal, Vedant Yede “IOT BASED ADVANCE PILL REMINDER SYSTEM FOR DISTINCT PATIENTS” in 2021 Fifth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)Dept. of E and TC Engineering, Y. C. College of Engineering, Nagpur, India.

When it comes to loved ones, humans strive to keep them fit and healthy at all times. But what if they forget to take their medicine and become ill as a result? Hence, many patients require medication at the health care center, and it is difficult for us to remind each patient to take medicine at a specific time. Traditional way requires lot of human effort to remind the patient to take medicine. But in this digital era, humans make use of machines to do certain works. Pill remainder has a wide range of uses, including use by patients at home, doctors in hospitals, and a variety of other settings. This paper presents a working of advance pill remainder setup, which can remove asymmetry in taking medicine dosages and remind the patient to take medicine at prescribed time and particular number of dosages. In this approach, the users are switching from human memory to automated supervision.

4. P. Ranjana;Elizabeth Alexander “HEALTH ALERT AND MEDICINE REMAINDER USING INTERNET OF THINGS” in 2018 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)Department of Computer Science and Engineering, Hindustan Institute of Technology and Science, Chennai, India.

In today's life, human beings face difficulty to keep in mind the medicines they required to take. This paper proposes a model of automatic medicine reminder and apothecary system. This system can relieve unevenness in taking recommended dosage of pills on time prescribed by the doctor and switch from ways primarily reliant with the memory of the human being insignificant regulation, hence people can be freed doing wrong things due to human error like taking pill at different time with incorrect dosage. Various medicine boxes exist in the market. The proposed medicine box would help people who are under medication mainly for old persons to take the medicine on time without forgetting. It also continuously monitor the people's health condition like Blood pressure, ECG through the tensors kept at home and

inform them to take necessary action. A person's life can be saved by this system. Human effort can also be decreased by this health alert and medicine remainder.

5. Pradnya Mhatre and Rasika Patil "IOT BASED PILL REMINDER SYSTEM" in International Journal of Advanced Research in Science, Communication and Technology (IJARSCT) Volume 2, Issue 1, July 2022 from Bharati Vidyapeeth' Institute of Management and Information Technology, University of Mumbai, India.

Internet of Things is a virtual network equipped with software, sensors, and a network connection that allows those objects to collect and share data. The Internet of Things allows us to hear and control things remotely with the current network infrastructure. The Internet of Things is increasingly being recognized by various industries, especially in the healthcare industry. This paper explains that by analysing data, an online-based reminder system was created. It is designed to help patients who forget to take medication.

6. Balachandra Rao, Preetham M Nayak, Sachin S Nayak "MEDICATION REMINDER AND MONITORING SYSTEM USING IOT" in International Journal Of Current Engineering And Scientific Research (Ijcesr) Issn (Print): 2393-8374, (Online): 2394-0697, Volume-4, Issue-6, 2017 Department of MCA, NMAMIT, Nitte, Karkala, Udupi District.

The idea of digital world where the different types of sensors and local processing connected to share information is used in many industries nowadays. There are various products which are developed based on these ideas. Healthcare industry is one where lot of improvements is taking place. The proposed system consists of an IOT enabled medicine box which gives timely messages for the patients about their medication time. It alerts the patients to take medicines at the proper time. The medicine details can be recorded in the mobile application by the patient himself or by the caretaker of the patient. The system helps to preserve track of medicine intake, stock of medicine and so on.

7. N Chandana, Mayur Kumar, Megha, Guruprasada Shridhar Hegde, K Shashi Raj "IOT BASED MEDICINE REMINDER AND DISPENSING MACHINE" Department of Electronics and Communication Engineering, Dayananda Sagar College of Engineering, Bangalore, India.

This project involves the design & development of medicine reminder and dispensing machines based on the healthcare system. Because of the pandemic situation, this innovative system is proposed because patients are given medicines by nurses and doctors to alleviate pain, boost immunity, and reduce symptoms. However, this puts the healthcare warriors at risk

when they administer the medication to patients, so a machine that could take in the medication doses for an entire week has been created. Thus, ensuring distance from patients and nurses. The data of when the medicine is taken is been stored in an SD card for further reference by doctors. This machine can also be used in homes where elderly patients forget to take their medications on time and require a caregiver to administer each dose. Food and exercise times are beneficial to patients because certain medications must be taken at specific intervals before or after food.

8. Prafulla, Dehankar Manisha, Guru Shubhada, Sachin Patil, Nandkishor Bankar
Department Journal of Infectious Diseases & Preventive Medicine Review Article
“MEDICINE REMINDER AND MONITORING SYSTEM FOR SECURE HEALTH
USING INTERNET OF THINGS” Fadanvis of Shalya Tantra, Datta Meghe Ayurvedic
Medical College Hospital and Research Centre, Nagpur, India.

Internet of Things (IoT) is a system of internet-connected devices which collect and transfer data over a wireless network without human intervention. Smartphones, wearable devices like health band or smart watch are examples of IoT. IoT works on four components are sensors, network communication, analytics (cloud) and application. Non adherence to treatment is a major reason for poor control of diseases like hypertension, diabetes which ultimately leads to complications. Medicine reminder apps and smart devices can be very helpful to overcome this problem. Smart watches and devices have applications which can monitor persons heart rate, blood oxygen, body temperature, blood pressure, ECG etc. Readings of these parameters can be shared with a doctor who is connected through internet. In critical situation immediate intervention can be done by the physician by advising appropriate medicine. Thus use of IoT is crucial in monitoring of health of the individual. COVID-19 pandemic patients are being monitored and treated from a distance with the help of internetconnected smart devices. Shortage of skilled human resources in health care sector can be addressed by using this technology. It will be a boon for health services in public sector. Considering the economical turnover of IoT in health care sector globally, adopting this technology in India is need of hour.