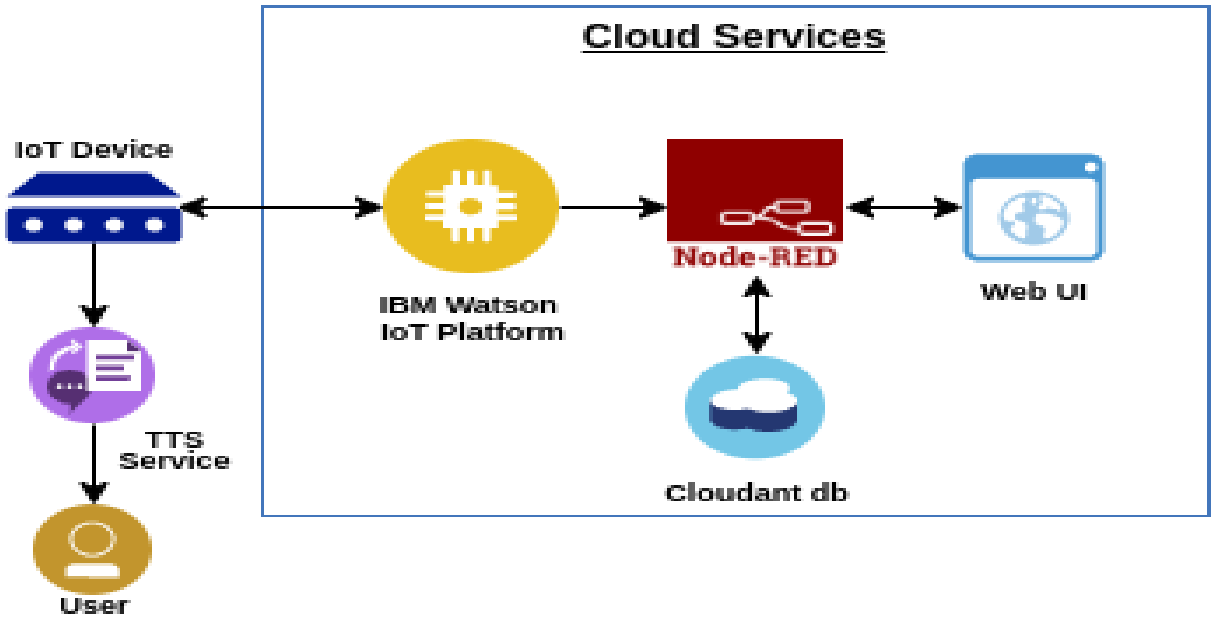
PERSONAL ASSISTANT FOR SENIORS WHO ARE SELF RELIANT

INTRODUCTION

Most of the time due to number of work for the people as well as regarding age and some disease which leads to forget the basic things among daily routines. If the patient sufferings from the disease where it is compulsory to take medicine at proper time, in this paper we have review the technology of home health care system among them a medicine reminder system and some improvement regarding authentication have well focused .Generally for home based health care the arrangement include communications, imaging, sensing and human computer interaction technologies embattled at diagnosis, treatment and monitoring patients without disturbing the quality of lifestyle. It can be possible the development of a low cost medical sensing, communication and analytics device that is real-time monitoring internet allowed patients physical conditions. Internet of Things (IoT) network will provide active and real-time appointment of patient, hospitals, caretaker and doctors apart from this the secured data transmission from source point to destination for the purpose of remote monitoring there is need of the architecture of a low cost embedded platform for Web-based monitoring The distant monitoring is made possible by using various biomedical devices, they measure and transmit data via Bluetooth or ZigBee to a unit that manages them (PC, iTV). The collected information may be stored on the device or sent to a collection centre that provides a complete monitoring, for both health professionals and patients. Access to the medical centre can be allowed, via web, from mobile device or PC 2 The IOT and RFID combination also play a vital role in object detection and personal identification which can be use categorized the person while remote monitoring when number of people information have observed which will helpful to unique identity to each patient and their respective data will be stored.

As a Consequence of healthcare reforms, digital medical records have facilitated the widespread availability of publicly available, statistical data. Feeding the pool of mounting data is the patient doctor interaction Physicians assess the patient's complaint and prescribe a course of action2The data collected provides the basis for a decision support tool for Patients to compare Prescription Drug Plans based on a patient's individual situation and preferences. The tool will provide explicit information that will assist the patient in determining the most suitable prescription drug plan, taking into account the individual importance of plan features. Utilizing historic data, comparisons on Prescription spending will be made to past patients who have a similar health profile as identified by the current patient3.In this paper is observed result from review which leads to home health care module specifically for the medicine whose technology discuss in technique requirement part. In overall system function the call will generate according to scheduled and the situation can be recorded with help of application which will remotely monitor, save for the future reference, update drug information according to need through web after comparing drug taking habit of patient.

TECHNICAL ARCHITECTURE



REVIEW -1

Title of the paper:

A Medicine Dose Controller of Ubiquitous Home Environment(2009)

Name of the Author : Ilkko

- Home automation and wireless sensor network which have enhancing the quality of life by providing security, information and comfort. Here had discuss a centric home server with three main roles: use of existing Interfaces on registered systems for remote monitoring and Control, serving the surrounding system as a data gateway and Providing content implemented to adaptive user interfaces enhanced by Belongings of end-user client devices, the ubipill device hadremind people for elder and for monitoring purposes ubipill and home server have been design to reliably monitor the medicine box activity by web browser

REVIEW-2

Title of the paper:

Security and communication architecture for networked medical devices in mobility-aware eHealth environments(2012)

Name of the Author : Kliem

- Telemedicine concept is cost efficient and location autonomous monitoring system, the suitable and secured medical data can be transferred with different devices with attention towards security and privacy issue. Emergency situations need on the flutter network integration and data transmission fluctuating from domains like patients home, medical practices, ambulances and, hospitals, where each domain may parallel to a different authority so, mobility aware approach allowing out of the box medical device integration and authentication, and simultaneously fulfilling the typical security and privacy requirements of e-health environments.

REVIEW:3

Title of the paper:

Application of RFID Technology for In-House Drug Management System(2013)

Name of the Author: Parida

- RFID based technology have used to make drug management system, in thistracking of medicine can be done including emergency or regular medicine with or without RFID tag .the HF tag have assigning the user and by employing RFID reader ,along with camera and web based system to track the user. This system can be beneficial for the old age, less educated people.

REVIEW – 4:

Title of the paper:

A Self-powering Wireless Environment Monitoring System Using Soil Energy(2014)

Name of the Author: Clifton

- In the integrated patient monitoring which include electronic patient data which generally have more amount challenges to acquire cope with artefact data with the help of algorithm, analyzing and communicating the resultant data for reporting to clinician, here in this demonstrated the machine learning technology embedded within healthcare information system which provide clinical benefits for improving patient outcomes in busy environments.

REVIEW 5

Title of the paper:

Efficient and secure in-home wearable insomnia monitoring and diagnosis system (2014)

Name of the Author: Hamida

- Due to the evolution in technology it is now possible to specific timing monitoring here delivers an experimental estimation of communication and security protocols that can be used in in-home sleep monitoring and health care and highlights the most proper protocol in terms of security and overhead. Design Procedures are then derived for the distribution of effective in-home patients monitoring systems

REVIEW-6:

Title of the paper:

Home Health Hub Internet of Thing(2015)

Name of the Author: Ray

- Health is vital part of life and it is quite necessary to give priority health related issue in which digitization helpful by using number of devices through the concept of IOT but due to heterogeneity and interoperability the concept of digitization for health care is neglected, here in this the best focus given to architecture framework for human health hub which have envision of usage of real life implementation

REVIEW-7:

Title of the paper:

Design of vital sign monitor based on wireless sensor networks and telemedicine technology(2015)

Name of the Author: Shivakumar

- Vital sign monitor can be implemented with Bluetooth technology which is embedded with sensor, the transmitter will include the application oriented smart phone enable with 3G or IEEE 802.11 i.e. wifi based transmission. The data from transmitter will be sending to cloud for centralized monitoring takes place; the expert in remote place can view all patient data and in case of emergency can take appropriate action.

REVIEW-8:

Title of the paper:

Multidisciplinary approaches to achieving efficient and trustworthy eHealth monitoring systems(2016)

Name of the Author: Ajmal Sawand

- The technological merging between IOT, wireless body area network and cloud computing have vital contribution in e health care which improve the quality of medical care, basically patient centric monitoring play a role in e health care services which involve medical data collection, aggregation, data transmission and data analysis here entire monitoring lifecycle and essential services component have discus as well as design challenges in designing the quality and patient centric monitoring scheme along with potential solution

REVIEW-9:

Title of the paper:

The intelligent pill box-Design and implementation(2016)

Name of the Author: Huang

- The implementation of pillbox has proposed by keeping the problems of old age people in mind to provide full medication safety. The pill box will remind the patient about timing by doing this drug abusing can be controlled.

REVIEW-10:

Title of the paper:

Home telehealth by Internet of Things (IoT)(2017)

Name of the Author: Al-Majeed

- The real time monitoring can be possible through IOT which helps in development of low cost medical sensing, communication and analytic devices which make quality of life, in case of density of messages there is fear of information degradation but by using proper algorithm we can resolve the problem and can make the low cost imaging, sensing and human computer interaction technology

SUMMARY REVIEW

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. In this proposed system an android- based application in which an automatic call system is implemented. Also interaction between patients and doctors through video calling and secure prescription will be focused upon. First we have to create emergency code with mobile number then through this number default send a call at the patient in this way is very useful for the patient take a medicine at respective time. The buzzer and LED will ON immediately when it gets the incoming call and then LED and buzzer will OFF automatically then the patient take the medicine in their medicine box.