A PERSONAL ASSISTANCE FOR SENIORS WHO ARE

SELF –RELIANT

LITERATURE SURVEY

TEAM LEADER:

SHALINI S - 311419104072

TEAM MEMBERS:

SAROJA B – 311419104069

SHOBIKA A – 311419104073

YUVATI MALAVIKAA VS – 311419104099

Abstract:

Tracking the health of a person and proper medication improves their time. Studies suggest the most of the deaths of the elderly people have occurred during the night when the person is asleep. A Caretaker cannot assist a person all the time. This work proposes a personal assistant for an elderly people or a patient. The Personal assistants can provide in-home respite care, allowing family members or other caretakers to take a temporary break. The main objective of this work is to help seniors maintain their quality of life at home and to keep them living their lives their way, as well as to lighten the load of full-time or family caretaker.

Literature Review:

Ilkko et al4 proposed UbiPILL A Medicine Dose Controller of Ubiquitous Home Environment (2009), 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 adaptive user interfaces enhanced by Belongings of end-user client devices, the ubipill device had implemented to remind people for elder and for monitoring purposes ubiphill and home server have been design to reliably monitor the medicine box activity by web browser.

Kliem et al5 proposed Security and communication architecture for networked medical devices in mobility aware eHealth environments (2012), 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 boxmedical device 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.

Parids et al3 proposed Application of RFID Technology for In-House Drug Management System(2012), RIFD based technology have used to make drug management system, in this tracking of

medicine can be done including emergency or regular medicine with or without 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.

Clifton et al2 A Self-powering Wireless Environment Monitoring System Using Soil Energy, proposed A largescale clinical validation of an integrated monitoring system in the emergency department(2013), 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, analysing 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.

Hamida et al6 proposed towards efficient and secure in-home wearable insomnia

monitoring and diagnosis system (2013), 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

Ray et al7 proposed Home Health Hub Internet of Things (H3IoT)(2014), Health is vital part of life and it is quite necessary to gibe 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 digitalization for healthcare 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.

Shivakumar et al8 proposed Design of vital sign monitor based on wireless sensor networks and telemedicine technology(2014), 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.

Ajmal Sawand et al1 proposed Multidisciplinary approaches to achieving efficient and trustworthy eHealth monitoring systems(2014), 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 data collection, aggregation, data transmission and data analysis here entire monitoring lifecycle and essential services component have discuss as well as design

challenges in designing the quality and patient centric monitoring scheme along with potential solution.

Huang et al8 proposed the intelligent pill box—Design and implementation (2014). The implementation of pill box 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 liming by doing this drug abusing can be controlled.

Al-Majeed et al10 proposed Home telehealth by Internet of Things (IoT)(2015), 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 csn make the low cost imaging, sensing and human computer interaction technology.

Lin et al9 proposed A Self-powering Wireless Environment Monitoring System

Using Soil Energy (2015), The monitoring system can uses the self-powering wireless environment with the help of renewable energy which can be beneficial in remote places where the power problem in wide manner, in this the system have demonstrated which will uses soil energy with carbon, zink electrodes.

Moga et al11 proposed Embedded platform for Web-based monitoring and control of a smart home (2015), Present the low cost embedded platform for web used monitoring and controlling and the platform consist of distributed sensing and control network and touch screen to easy use interface to the user and remote web based access.

Table 1. Analysis of technologies for monitoring system based on review papers

S.NO	Author	Technology Describe
1	Leo Ilkko	UbiHOMESERVER
2	Andreas Kliem	Bluetooth (phone, encryption key used in authentication
3	Malabika Parida	RFID technology
4	Fu-To Lin	A self-powering Wireless
5	S. Tmar BenHamida	HTTP, MQTP protocol
6	Partha P.Ray	IOT
7	Nair Siddharth ShivaKumar	A wireless sensor network and telemedicine technology
8	Ajmal Sawand	IOT, Wireless Body Area Networks
9	Shih-Chang Huang	Ardunio, Skype, Infrared sensors
10	Dr. Salahh S. Al-Majeed	Telemedicine, technology, IOT, Cloud
11	Doniel Moga	Web of things