V.S.B.ENGINEERING COLLEGE, KARUR

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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LITERATURE SURVEY

TITLE : Personal Assistance for Seniors Who Are Self-Reliant

DOMAIN NAME : Internet of Things(IOT)

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ABSTRACT :

In modern society, busy life has made people forget many things in day to day life. The elderly people and the people victims of chronicle diseases who need to take the medicines timely without missing are suffering from dementia, which is forgetting things in their daily routine. Many Harmful and risky diseases can be cured through proper medication. The proposed system consists of an IOT enabled medication reminder system and it gives timely alerts for the patients about their medication time. It alerts the patient to take medicines at proper time. The system helps to monitor whether patient has taken the medicine.

INTRODUCTION :

To support in-home health care activities, As part of an initiative investigating technology solutions we created several concepts of a multi-device, home-centred system that would use television (TV) along with set-top box (STB), mobile phones and other in-home devices as a means to set and deliver medication reminders. To eliminate the factors of always needed observation like nurses or taking the risk of a missed dose, we had to find an easy, portable and efficient solution. To assess the value of these concepts, we conducted a focus group study with the following goals:

1) To understand the current practices and challenges faced by our potential users (Le., middle aged and senior adults living independently) in managing their medications.

2) To assess the potential value of TV ,mobile phones and other in-home devices for delivering medication reminders.

3) To identify additional user needs to support home-centred medication management activities.

LITERATURE SURVEY:

Poor medication adherence still remains a major challenge facing most industrialized countries including the United States, leading to worsening disease severity and increased costs associated with higher hospital admission rates . According to the American Heart Association, more than half of all Americans with chronic disease do not follow their physician's medication and lifestyle guidance, and nine out of ten make mistakes taking their medication . In the U.S. alone, non-adherence to medications causes 125,000 deaths annually and accounts for 10% to 25% of hospital and nursing home admissions, with the annual direct and indirect cost of non-adherence estimated to be over $177 billion . Recent literature show that, despite extensive research into interventions for assisting with adherence, rates of adherence have not changed over the past three decades . Previous research found that forgetfulness is one of the most common factors contributing to poor adherence, along with the complexity of the regimen and disruption of daily routines . Other studies have shown that medications are taken at various locations and in various contexts within the home; therefore, home computers are of marginal utility in this space since few people take their medications near them .

Pillboxes already exist, but most of them have limited use, don't fit for elder ages, or even have a big size that makes them unsuitable to take it with you anywhere . Making a useful smart pillbox had to be easily integrated with the recent sweeping smart technologies. While at the same time, it had been fit for the elders and their limited knowledge and experience to implement the ease of use. Size and portability was also an important fact European Journal of Molecular & Clinical Medicine ISSN 2515-8260 Volume 07, Issue 09, 2020 2711 that we had to keep in mind It's connected through a wireless network for it to be called smart, which enables it to be connected to the internet for future applications and integration.

Also, it is distinguished by the wide range of Wi-Fi instead of Bluetooth or any other field communication and erase the need for any wires or wired connection, which enables portability in the first place. Through that same network, it’s connected to the mobile phone, which with it you can set the timing interval for

the dose and notifies you in many ways when the dose time comes. Also, we added a buzzer with a LED to make a type of physical warning so that it leaves you no choice but to remember the pill time and take it As pills have taken such an important role in everyday life, there has been the past years an increase in the number of medical negligence cases related to incorrect medication given to patients, such as the case of the nurse who gave a patient a person with paralysis instead of an antacid that was prescribed by the doctor, causing the patient's death. After seeing so many of these cases, the correct person must take the correct pill at the correct time, otherwise taking an incorrect one or not taking one at all may expose the patient to several dangerous situations, ranging from mild health issues up to death.

All of these results suggest that automated medication reminders through multiple devices within the home might be helpful technology interventions for improving adherence.

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