

# PROJECT TITLE: PERSONAL ASSISTANCE FOR SENIORS WHO ARE SELF RELIANT

## LITERATURE SURVEY

### 1. Personal Health Assistance for Elderly People via Smartwatch Based Motion Analysis

#### AUTHOR:

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#### ABSTRACT:

A new approach is presented for a personal health assistant for elderly people utilizing smartwatches. On the smartwatch, an app featuring an artificial neuronal net (ANN) analyzes the motion patterns of the smartwatch wearer. The ANN recognizes health relevant events and activities of daily living (EDLs, ADL). The system architecture of the app, the data acquisition process, the selection and design of suitable data models and the advantages of ANNs versus other recognition engines are elaborated. The characteristics of the recognized ADLs will be utilized for continuously calculating the wellbeing of the smartwatch wearer, safeguarding a self-determined living in the familiar home up to the very old age.

### 2. The Influence on Medical Activities by Mobile Medical Application

#### AUTHOR:

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## **ABSTRACT:**

Various mobile medical APPs appear designed for mobile smart phones in China recent years, providing more approaches between patients and doctors. It offers more convenient and prompt medical information and service exchange. Though there still exist some unfavorable factors, mobile medical application improves patient medical experience, the relationship between doctors and patients, the doctor's self-price value and contain the huge commercial value. In the future, as the improvement of the laws and regulations, the increasing of the market competition and advancement of technology, it will change the medical pattern completely, especially for out-patients.

## **3.Design of Smart Medicine Reminder (SMR) Box with an Android application**

### **AUTHOR:**

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### **ABSTRACT:**

This project presents a Smart Medicine Reminder (SMR) prototype. The main purpose of this system is to help the patients, primarily seniors, take their medications on time in an easy way without the possibility of missing pills, also reduce the risk of over or under dosing accidentally. Not taking medications correctly can have serious consequences such as delayed recovery, illness and even death. The Smart Medicine Reminder (SMR) could solve such problems by informing and alerting the patients to take the appropriate dose at the right time. Also, it provides direct communication between the patients and the caregivers as it will immediately notify the caregiver in case the patient missed his/her pill. In addition, SMR provides the user with a touch interface available as an application on their smartphone which will allow them to remotely manage and control pill schedules and usage data.

## **4. A Wireless-Enabled, Sensor-Integrated Personal Assistance System for Independent and Assisted Living**

### **AUTHOR:**

1. Jennifer C. Hou , Qixin Wang , Bedoor K. AlShebli , Marco Caccamo, Chin-Fei Cheah , Eric Gilbert , Carl A. Gunter , Elsa Gunter , Karrie Karahalios, Min-Young Nam, Lui Sha , Wook Shin, Sammy Yu, Zheng Zeng - Department of Computer Science, University of Illinois at Urbana-Champaign
2. Linda Ball, Stanley Birge - College of Medicine, Washington University in Saint Louis
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### **ABSTRACT:**

Advances in networking, sensors, and embedded devices have made it feasible to monitor and provide medical and other assistance to people in their homes. Aging populations will benefit from reduced costs and improved health care through assisted living based on these technologies. However, these systems challenge current state-of-the-art techniques for usability, reliability, and security. In this paper we present the PAS open architecture for assisted living, which allows independently developed third party components to collaborate. We discuss key technological issues in assisted living systems, such as tracking, fall detection, security and privacy; and results from our pilot study in a real assisted living facility are presented

## **5. Health Alert and Medicine Reminder using Internet of Things**

### **AUTHOR:**

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## **ABSTRACT:**

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.

<b>FEATURES OF LITERATURE SURVEY</b>	<b>MODIFIED FEATURES</b>
<b># The continuous monitoring of pills is required by the user – the app doesn't notifies to the user when pills gets over.</b>	<b># The continuous monitoring of pills is not required by the user – the app automatically notifies to the user and also the pharmacies when pills gets over and delivered to the users.</b>
<b># Monitoring the seniors is done only for medical purposes</b>	<b># Monitoring the seniors not only for medical purposes and also other regular activities such as monitoring them during their routine works and travelling etc.. picking up inconsistency and alerting emergency service if necessary.</b>