Date	19 September 2022
Team ID	PNT2022TMID31785
Project Name	Personal Assistance for Seniors who are Self-Reliant.

#### LITERATURE SURVEY:

**Abstract**—As people become older, people generally will experience a health decline such as becomes weak, susceptible to disease, decreased vision ability, etc. Therefore, special health attention is needed for the elderly people, especially from the family member or personal doctors / nurses. Therefore, this research try to develop an application on mobile phone that could help elderly people and their family member to supervise and monitor the health of the elderly.

Introduction--The evolution of Internet of Things (IoT) has enabled the vision of personal assistant for seniors who are self-reliant. On the basis of their comfort, they can easily know their medicine/drugs according to their time and the amount of the medicine/drugs on their intake. This data is transmitted back to the cloud for further analysis. The elders/patients who are basically forgot their regular schedule on the medicine/drugs that must be taken by them. So, to avoid those kind of activity our project is more useful for them and all the people who are in risk

#### 1.LITERATURE REVIEW

## [1]. "Elderly Healthcare Assistance Application Using Mobile Phone" - 2017 Andreas Handojo, Tioe Julio Adrian Sutiono, Anita Nathania Purbowo

Their research try to develop an application on mobile phone that could help elderly people and their family member to supervise and monitor the health of the elderly. This application has feature to monitor the location of the elderly, remainder to take the medication, doctor appointment remainder, medical record records, emergency phone to family number or personal doctor, etc. From their experimental results of the application to the participant and the test with the questionnaire on the prospective users, 94% of respondents feel the application is very useful and can run well. There is also a feature to find the location of elder mobile phone by utilizing GPS and Google Map API.

## [2]. "Fuzzy-based Health Monitoring and Voice Assistance Featured Autonomous Elderly Care Service Robot"

In this study, the service and assistant mobile robot that is developed for the growing elderly population in our country and in the world will help the user to meet their daily needs and support living alone. The mobile robot, with artificial intelligence-supported voice communication capability, will be able to receive voice commands and provide assistant support to the user. Also, with the robot's autonomous mobility, it will go to the locations that the user says and will be next to the person. It is aimed to increase human-robot interaction by providing interface support with the screen to be placed on the robot. Evarobot is used as mobile robot platform.

# [3]. "Monitoring and Detecting Outliers for Elder's Life Activities in a Smart Home: A Case Study"- 2017

The proposed technique is applied in an intelligent environment where a network of wireless sensors is installed. They use a real sensor data extracted from a smart home where an elderly lady living alone during one year. The purpose of detecting these outliers is to find some extreme duration time the elderly stay in a particular location (unusual in normal days). The results of this study can be interpreted to help and support the care system in prediction and identifying the elder's health status over time to avoid him get chronic diseases.

## [4]. "Personal Health Assistance for Elderly People via Smartwatch Based Motion Analysis"-2017

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). Current smartwatches directly can only measure the performed steps of the smartwatch wearer and/or the heart rate, pulse. EDL, ADL recognition based on an ANN works on today commercial smartwatches and delivers the necessary input for calculating the wellbeing of the smartwatch wearer. Continuous reliable detection of the EDL, the ADLsdescribed requires durable background operations of the smartwatches, which only now will be supported by the most advanced smartwatch operating systems (OSs). The sensitivity of the individual model will require a substantial retraining even in cases of a smartwatch model change or even a major OS update.