PERSONAL ASSISTANCE FOR SENIORS WHO ARE SELF-RELIANT

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CONTENTS

- Objective
- Literature review
- References

OBJECTIVE

Personal assistance for seniors who are self-reliant using IOT

LITERATURE REVIEW

1) **Personal Assistance Device for Independent Senior Citizens/ Patients(A. Yuvaraj K et al., Jan 2020)**

- The personal assistance gadget for elderly people's health monitoring proposed in this research uses various sensors that can measure the elderly's posture and pulse rate. Therefore, if the device is utilised in a hospital, the doctor may quickly recognise the abnormal results and treat the patient. The display on the OLED screen and buzzer both serve as indicators of proper medication intake at the appropriate time.
- The mobile application for this device displays the pulse rate measurements as well as the accelerometer and pulse sensor readings for the person being tracked. IOT pulse sensor and accelerometer connections allow for information sharing and communication between patients and doctors.

LITERATURE REVIEW

2)A Smart-Home IoT Infrastructure for the Support of Independent Living of Older Adults(Stefanos Stavrotheodoros et al., June 2018)

- The smart home IOT architecture in this research is designed to assist independent living for older adults over 65 who have ongoing health issues or are fragile. Here, a gateway connects the installed supporting devices to the internet, establishing a machine-to-machine network. There are three layers in the architecture.
- First perception layer, which consists of two components and gathers user data for integration into the following layer.
- All sensor data is collected by the second gateway layer and sent to the third tier. Here, message queuing telemetry transport protocols are utilised to enable communication across devices with the usage of a specific device called an aggregation point (MQTT).
- The third cloud layer is based on software that gathers data from installed sensors, offers data storage, and supports decision-making by analysing the data through sophisticated Data Analytics and visual analytics to end users.

LITERATURE REVIEW

3) Development of an IoT-Based Health Promotion System for Seniors(Chia-Hui Liu., Oct 2020)

- Using wireless technology in combination with physiological measuring methods, home care devices, and can help seniors maintain their health and get home health care services. This paper includes a wireless sensor network to create context-sensitive health promotion for an aged care system. The system is separated into three subsystems: the context awareness-based service subsystem, the elderly nutrition diet and health promotion subsystem, and the IoT-based physiological information subsystem.
- Long-term elderly diet and activity records can be integrated by the system, which can then help the elderly complete their own nutrition assessment and health management.

LITERATURE REVIEW

4)Virtual Agents as Daily Assistants for Elderly or Cognitively Impaired People(Ramin Yaghoubzadeh., 2013)

- In this paper, studies that address these issues for older users and users with cognitive impairment are presented. Results from focus groups and interviews indicate that using a participatory design approach can boost acceptance. Actual experiments of interaction with a prototype show that spoken-language interaction is possible and provide techniques to reduce understanding issues.
- Researchers have examined whether and how virtual agents can help people with cognitive (and possibly other) disabilities manage their daily schedule and calendar, and we have shared our preliminary findings in this study.

REFERENCES

1) “Personal Assistance Device for Independent Senior Citizens/ Patients” A. Yuvaraj K, B. N. Gunasekhar Reddy, C. V. Saritha . International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-5, January 2020.
2) “A Smart-Home IoT Infrastructure for the Support of Independent Living of Older Adults” Stefanos Stavrotheodoros, Nikolaos Kaklanis, Konstantinos Votis, Dimitrios Tzovaras . HAL Id: hal-01821303 https://hal.inria.fr/hal-01821303 Submitted on 22 Jun 2018.
3) “Development of an IoT-Based Health Promotion System for Seniors” Chia-Hui Liu 1,* and Jih-Fu Tu Sustainability 2020, 12, 8946; doi:10.3390/su12218946.
4) “Virtual Agents as Daily Assistants for Elderly or Cognitively Impaired People” Ramin Yaghoubzadeh, Marcel Kramer, Karola Pitsch, and Stefan Kopp R. Aylett et al. (Eds.): IVA 2013, LNAI 8108, pp. 79–91, 2013. c Springer-Verlag Berlin Heidelberg 2013.

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