

Personal Assistance for seniors who are self-reliant

Literature survey:

The purpose of this chapter is to review the previous research on personal assistance for seniors who are self-reliant. This chapter will present the main recent works on this.

There is a rising concern in designing options for elderly residing in a society with an increased population ageing. IoT is a revolutionary phenomenon that transforms our life entirely as well as aims to revolutionize current healthcare into a more individualized, precautionary and inclusive approach to treatment. In order to integrate these two main problems, this research provides an IoT-ready approach for elderly living treatment that can track and record critical details for patients in emergencies and include protocols for activating alarms. The strong low / low-cost / wireless capabilities make this approach into a secure and convenient wristband, perfect for anywhere and everywhere. There has been a strong device efficiency for incorporated functionalities and an overall battery life time of 306 hours (around 12 days) has been reached with respect to autonomy. Without the need of the out - of-range alarm, the device has demonstrated its output within a distance of 60 metres.

1. MARIA GABRIELLA MELCHOIRE Published on "IRCCS INRCA-National Institute of Health and Science on Ageing...2022". Caring help is essential for carrying out everyday activities when older persons age alone and become weak with functional limitations. The current study set out to examine the role and features of privately employed Personal Care Assistants (PCAs) who provide care for elderly people in Italy in light of the family's decreasing capacity to provide care and the under-resourcing of governmental services. In the "Inclusive ageing in place" (IN-AGE) project, 120 qualitative interviews with elderly persons in their homes in the Italian regions of Lombardy, Marche, and Calabria were conducted in 2019. Along with some basic quantifications of assertions, a content analysis was done. Results revealed that PCAs were helpful in 27 situations, mostly when older citizens' health difficulties were raised.

2. GUNTHER EYSENBACH Published on "JMIR M health U health 2021". With the benefits of hands-free and eyes-free engagement modalities to manage requests, voice assistants based on smart speakers promise to support the elderly population. The advantages of this kind of gadget are seen differently by older persons, although little is known about this. The ease of a speech-based engagement contributed to the favourable first reception to voice assistants. Particularly, it was common to finish an engagement with a voice assistant by expressing gratitude or providing criticism on the quality of the responses. Asking queries about health care and streaming music were the two main themes of orders given during the first conversation. However, the majority of the subsequent responses were negative due to the challenges in creating a structured language for a command.

3. Mithra Venkatesan published on 2021 IEEE Pune Section International Conference (Pune Con)". The robot for the elderly discussed in this essay is made up of numerous electrical components that can be changed in the future and utilised to create new robotic appliances that may be used in a domestic setting. A personal assistant robot called "Robo care for Elderly" is a prototype that will one day be utilized to care for and accompany the elderly. The Raspberry Pi microcomputer, an ultrasonic sensor, a PIR sensor, a temperature sensor, LEDs, an integrated Bluetooth module, a Dc motor, a servo motor, speakers, etc. are all part of this system. The major goal of the created work is to create a personal assistant robot prototype that is affordable and usable in every home, improving the usage of technology

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