CMR TECHNICAL CAMPUS

UGC (Autonomous)

Kandlakoya, Medchal Road, Hyd-501 401

Department of Electronics & Communication Engineering

Real Time Project Review

IOT BASED EALDERLY PEOPLE MONITORING SYSTEM

BATCH NO : 17

Project Guide :

Name:MRS.RASHMITHA

Designation :Assistant Professor

Project Coordinator :

Name:MR.G,PAVAN KUMAR

Designation:Assisant Professor

ROLL NUMBERS :

227R1A05B3-R.ARRCHANA

227R1A05B7-RUKKAYA

227R1A05A8-P.NAVEEN REDDY

CONTENTS

ABSTRACT

- Nowadays, many developed countries in the world, have gradually entered the high aging elderly people society and the population of the elderly people is still increased. Today, we are forward to meeting an older people society in the world. The elderly people have become a high risk of dementia or depression. In recent years, with the rapid development of internet of things (IoT) techniques, it has become a feasible solution to build a system that combines IoT and cloud techniques for detecting and preventing the elderly dementia or depression. This paper proposes an IoT-based elderly behavioral difference warning system for early depression and dementia warning. The proposed system is composed of wearable smart glasses, a BLE-based indoor trilateration position, and a cloud-based service platform. As a result, the proposed system can not only reduce human and medical costs, but also improve the cure rate of depression or delay the deterioration of dementia.

INTRODUCTION

- The introduction of IoT into elderly care also promises to alleviate the burden on caregivers and healthcare professionals by automating routine monitoring tasks and streamlining data management. Through cloud-based platforms and advanced analytics, collected data can be processed, analyzed, and presented in meaningful ways, allowing for informed decisionmaking and timely interventions. This technological approach not only enhances the efficiency of caregiving but also fosters a more responsive and compassionate approach to elderly care

- IoT technologies continue to evolve, there is potential for further integration with artificial intelligence (AI) and predictive analytics, enabling even more sophisticated monitoring and proactive healthcare interventions. However, along with these advancements come challenges related to privacy, security, and ethical considerations, which must be carefully addressed to ensure the trust and acceptance of both elderly users and caregivers.

LITERATURE SURVEY

S.No.	Name of Author	Title of the paper	International journal/conference	Volume No.	Issue	ISBN/ ISSN	Indexing
1.	Prashant J. Mahajan; Kalyani V. Pagare	PIR Based Automatic Fever Testing	International Journal of Electronics Engineering Research.(IRJET)	07	04 | Apr 2020	e-ISSN: 2395-0056 p-ISSN: 2395-0072	1345-1347
2.	Akshay Sharma A S	Review on Automatic Sanitizer Dispensing Machine	International Journal of Electronics Engineering Research.(IRJET)	09	07, July-2020	ISSN: 2278-0181	725-726
3.	Pooja Ajmera	Infrared Sensor	International Journal of Electronics Engineering Research.(IRJET)	05	05,May-2019	e-ISSN: 2581-0181 p-ISSN: 1559-1577	

EXISTING SYSTEM

This monitoring system is also be used by arduino controller alone. But it is not sufficient because with the use of IOT we can collect the information from anywhere (world wide). By use of Arduino controller alone we can get the information from one place only. It is space limited. It needs Doctor or nurse to monitor the patient and device always at the particular place.

An IoT-based system for monitoring elderly people uses sensors to track their health and safety. It monitors vital signs like heart rate and activity levels, and can detect falls or emergencies. Caregivers receive alerts on their phones and can see data on an app to check on their loved ones. It helps older adults live independently while ensuring help is available quickly when needed.

PROPOSED METHODOLOGY

- IOT patient monitoring has 5 sensors. They are temperature sensor, Heartbeat sensor, Pressure sensor, Glucose meter and humidity sensor. This project is very useful since the doctor can monitor patient health parameters just by visiting website or URL. And nowadays many IOT apps are also being developed. So now the doctor or family members can monitor or track the patient health through the Android application. To operate IOT based health monitoring system project, you need a Wi-Fi connection. The microcontroller or the Arduino board connects to the Wi-Fi network using a Wi-Fi module. This project will not work without a working Wi-Fi network. You can create a Wi-Fi zone using a Wi-Fi module or you can even create a Wi-Fi zone using Hotspot on your smart phone. The Arduino UNO board continuously reads input from these 5 senses. Then it sends this data to the cloud by sending this data to a particular URL/IP address. Then this action of sending data to IP is repeated after a particular interval of time.

IMPLEMENTATION

1. Assessment: Identify specific needs and challenges of elderly users.

2. Hardware Selection: Choose sensors and devices for health monitoring, activity tracking,

3. Software Development: Develop software for data collection, analysis, and user interface.

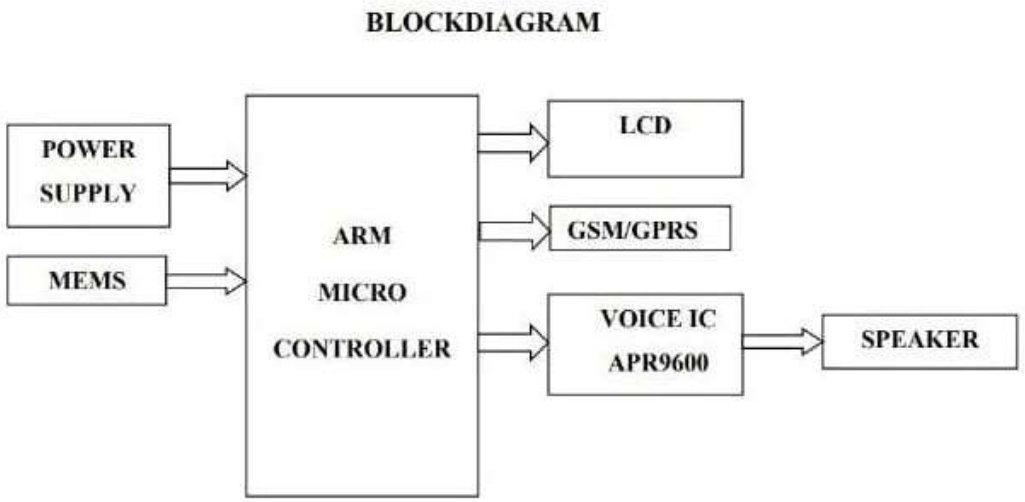
4. Connectivity: Establish reliable connections like Wi-Fi or cellular for data transmission.

5. Security: Implement strong security measures to protect sensitive data.

6. Testing: Conduct thorough testing to ensure functionality and reliability.

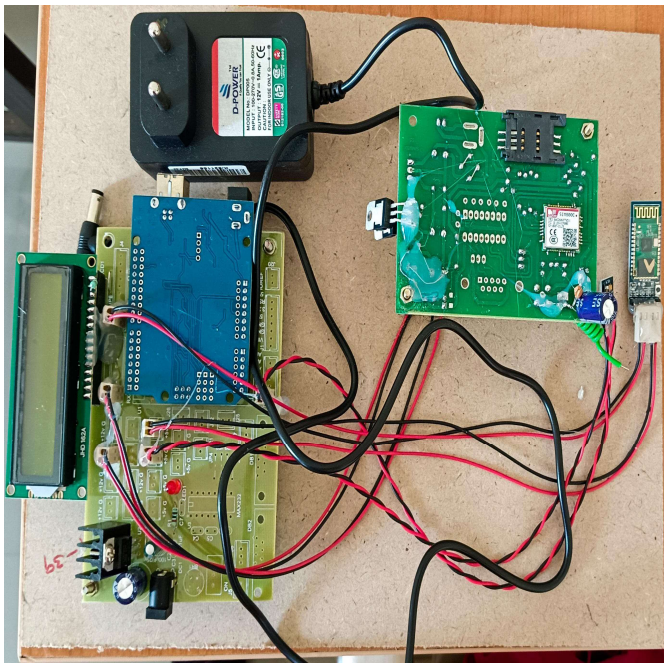
7. Deployment: Install and configure the system in the elderly person's environment.

ARCHITECTURE



RESULTS & DISCUSSION

- After implementing the IoT-based elderly monitoring system, significant improvements were observed in monitoring the health and safety of elderly individuals. The system effectively tracked vital signs such as heart rate and activity levels, providing real-time data to caregivers through a user-friendly interface. This enabled quick response to emergencies like falls and ensured timely medical assistance. Caregivers reported increased peace of mind knowing they could monitor their loved ones remotely and receive alerts on their mobile devices. Overall, the system enhanced the quality of care by promoting independence while improving emergency response capabilities, thereby contributing to a safer and more supportive environment for elderly individuals.



CONCLUSION AND FUTURE SCOPE

- In conclusion, the IoT-based elderly monitoring system has proven to be a valuable tool for enhancing the safety and well-being of elderly individuals. It has provided caregivers with real-time insights into their health and activities, enabling quicker responses to emergencies.

- future enhancements could include integrating AI for predictive analytics, improving sensor accuracy, and expanding remote monitoring capabilities. These advancements promise to further empower caregivers and improve the quality of life for elderly individuals by offering more proactive and personalized care solutions.

REFERENCES

- Prashant J. Mahajan; Kalyani V. Pagare, “PIR based automatic fever testing”, International Research Journal of Engineering and Technology(IRJET),vol-07,issue no-04,pp.1345-1347,2020.
- Pooja Ajmera, “INFRARED SENSOR” , International Research Journal of Engineering and Technology(IRJET), ISSN: 2278-0181 vol-05,issue no-23,1559-1557.
- Hanzhong, “DESIGN OFA NON-CONTACT INFRARED THERMOMETER”, International Research Journal of Engineering and Technology(IRJET),ISSN: 2581-0181 vol-08,issue no-13,1859-183
- Rohit Ramagade , Uday Thak, Harshad pidurkar, Lokesh Kathale; ”INNOVATIVE TECHNOLOGIES FOR TEMPERATURE MEASUREMENT OF AERO ENGINE COMPONENT”, International Research Journal of Engineering and Technology(IRJET), ISSN: 2395-0056 vol-05,issue no-23, 2395-0072
- Akshay Sharma A S, “ Review on Automatic Sanitizer Dispensing Machine”, International Research Journal of Engineering and Technology(IRJET),vol-09,issue no-07,pp.725-726,2020.

Q&A

THANK YOU