ATRIA INSTITUTE OF TECHNOLOGY

ASKB Campus, 1st Main Rd, AGS Colony, Anandnagar, Bengaluru,Karnataka 560024.

Department of Electronics & Communication Engineering

Title: Innovative Communication System for Deaf, Dumb, and Blind

Mr. K Rakesh
1AT19EC076
9502937353
konetirakesh118@gmail.com

Mr. Mohamed Azeez Afsar
1AT19EC099
8884531098
mdazeezf1205@gmail.com

Mr. Mohmmed Talib Khasim
1AT19EC102
6364702555
khasimmdtalib@gmail.com

Mr. Syed Bilal Ryan
1AT19EC172
74068680425
bilalsyed0731@gmail.com

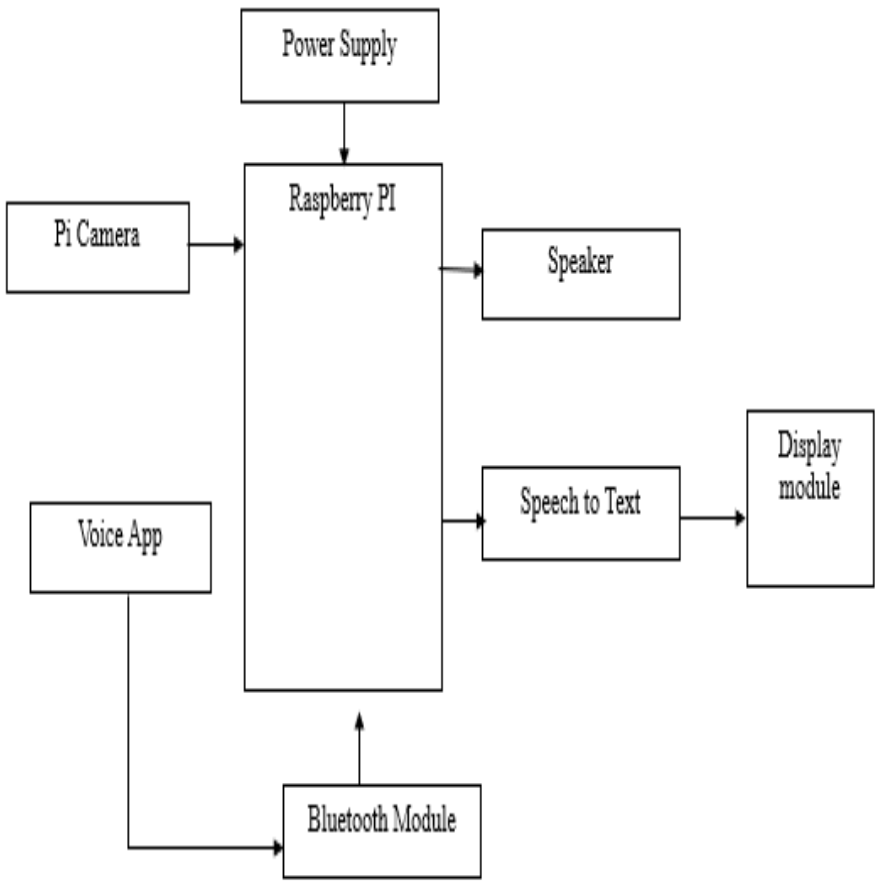
Project Guide:
Dr. Prasuna VNP
Associate Professor, Dept. of E&CE
Atria IT, Bengaluru

ABSTRACT:

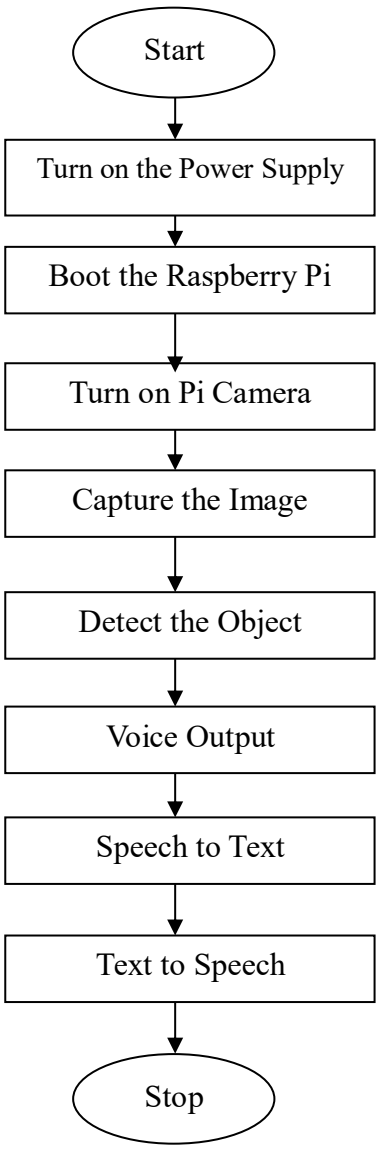
The number of individuals with hearing, vocal and visual impairments have increased in recent years. Providing support to individuals with visual, hearing or vocal impairments through a contemporary system is a demanding task. Researchers these days are aiming to find a solution to one of these impairments, but not all together. The primary objective of this task is to identify an innovative solution that can aid communication for individuals who have visual, hearing and vocal impairments. The work mainly resolves around Raspberry Pi which serves as the core platform for all activities. The primary objective of the work is to assist people with visual impairments by providing them access to auditory information from the surroundings and from the text. Individuals who have hearing impairment can access audio signals in text format by using speech to text conversion technique. This is done with the help of a voice app which makes them understand what a person says and this is displayed as a text message. For people with vocal impairment, their words are conveyed to the environment with the help of text to speech conversion through a speaker. Our proposal involves the use of Raspberry Pi system to recognize objects using image processing, and additionally transmit the identified objects to individuals with visual, vocal or hearing impairments.

Keywords—Visual, hearing and vocal impairment; Raspberry Pi; Innovative Communication.

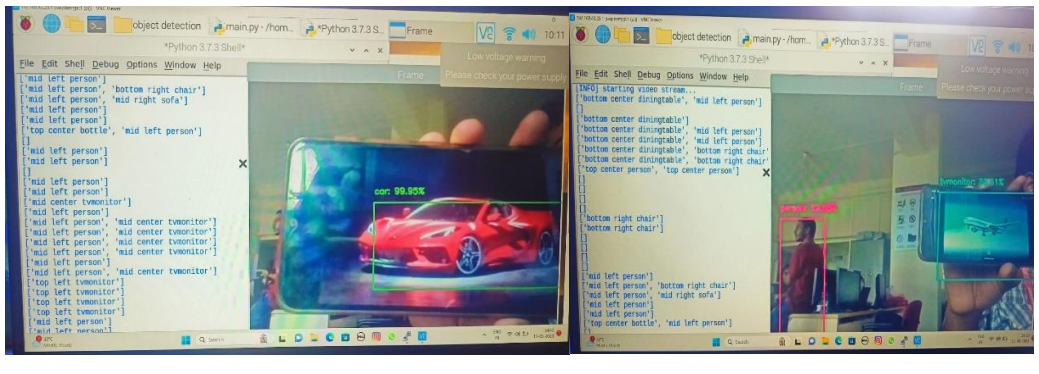
METHODOLOGY & BLOCK DIGRAM:



FLOW CHART:

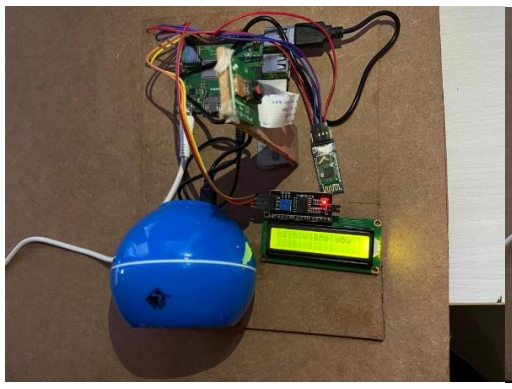


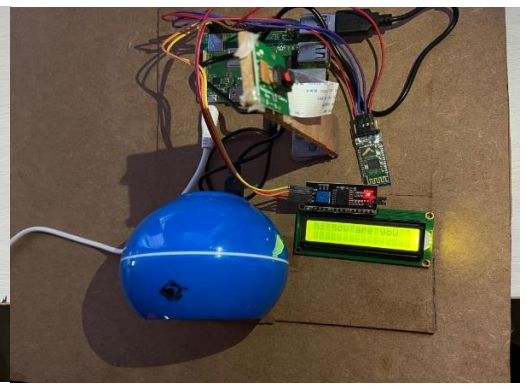
RESULT AND DISCUSSION: (With Images/Graphs):

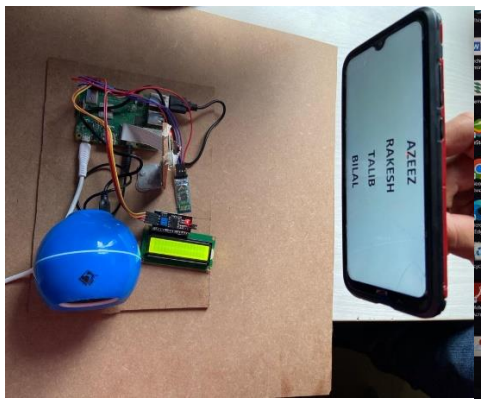


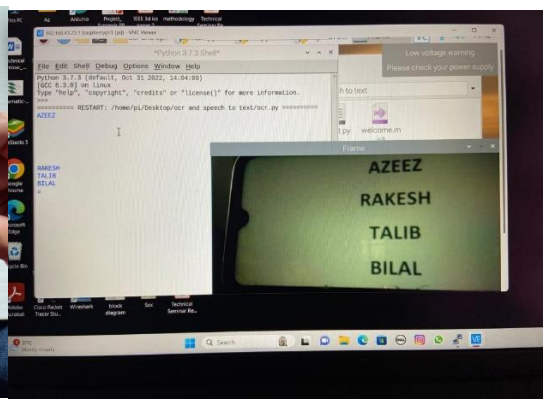
CONCLUSION & FUTURE SCOPE:

In Conclusion, Communication System for individuals who are deaf, dumb and blind have come a long way in recent years. With the advancements in technology, there are now various tools and devices that facilitate communication and enable them to interact with others more easily. Moreover, it is important to note that these communication systems should be tailored to individual's unique needs and preferences as no two people are exactly the same. In addition, it's vital to create a supportive and inclusive environment that respects and values the communication needs of individuals who are deaf, dumb and blind.









Overall, communication system for individuals who are deaf, dumb and blind have the potential to enhance their quality of life by promoting independence, facilitating social interactions and enabling them to access information and services more easily.

The future scope for communication systems for individuals who are deaf, dumb, and blind is promising. With the continued advancements in technology, there will be more innovative tools and devices that can improve communication and interaction for these individuals. For instance, artificial intelligence and machine learning can be integrated with existing communication systems to enhance their functionality and accuracy. In conclusion, the future scope for communication systems for individuals who are deaf, dumb, and blind is vast and promising. With continued advancements in technology, more personalized and accessible communication systems can be developed to enhance the quality of life for these individuals, while promoting inclusivity and understanding in society.

OUTCOME ACHIEVED: