Research Article   **Volume 8 Issue No.3**

Voice Recognition System-via Voice

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Abstract:
Recently, the social inclusion and technical aid to assure autonomy towards people with disabilities are getting greater attention all over the world. There is a great deal of interest in furthering the capabilities of smart homes and intelligent environments. This work presents a display design for accessible interaction in home appliances. Based on research, accessible interfaces state of the art, an interface design is proposed. This interface can be implemented over a smart device like Computers, Tablet, mobile and so. This research consolidated a feasible accessible interface to control certain basic functions pointing out the main requirements considering a diversified group of impairments. This project attempted to design and implement a voice assistant system. In this, system will identify the commands given by user to perform specific tasks. With this project we will be able to help physically challenged people to perform their basic action without any difficulty. Voice recognition module recognizes the user spoken words and correspondingly sends that signal to microcontroller.

Keywords: Microcontroller, Assistant, Commands

I. INTRODUCTION

The life cycle of modern man is evolved in such a manner that without multitasking he will lag behind the rest of the society by light ages. The newest innovations show that we can be online while watching TV, be email-ready while driving the car, be taking calls while ascending Mount Everest, access email using a phone while travelling with the advancement of technology we are provided with solutions that save our time while solving most of our common dilemmas. Automating the daily chorus can save most of our time. Automation can be defined as the process of having a machine or machines to accomplish tasks hitherto performed wholly or partly by humans. If there exists a system which can save our time while taking care of our other responsibilities such as securing our belongings, then it will further improve the quality of our lives. That is the main concern of this project. The home is an eternal, heterogeneous, distributed computing environment which must be secured and reliable. The main objective of this project is to provide user an application which enables him/her to control certain basic functions pointing out the main requirements considering a diversified group of impairments. The motivation for this project came from real world problems faced by the physically challenged people around the globe.

II.EXISTING SYSTEM

I.   **Title:**
Accessibility in digital television: designing remote controls II. Author: L. C. P. Costa, I. K. Ficheman, A. G. D. Correa, R. D. Lopes, M. K. Zuffo III. Year: 2012 IV. Abstract: This paper presents a set of digital television remote control devices designed for the Brazilian Digital Television System. The design guidelines were based on a research conducted with people with disabilities. We have achieved three models to attend distinct disabilities groups. V. Title: Accessible display design to control home area network VI. Author: L. C. P. Costa, N. S. Almeida, M. K. Zuffo VII. Year: 2013

III. PROPOSED SYSTEM

A voice automation system for disabled people built on top of visual studio with C language. The proposed system is a voice automation system for disabled people built on top of visual studio with C language. The application introduces portability as it can be customized as per the commands. In this, sensors can be used for security purpose e.g:- gas leakage alarm, etc.

IV. OBJECTIVE

In this, system will be providing basic information like: Date, Time, Weather etc. It will be performing actions according to the given commands by the end user. It's more powerful to control external home appliances. A voice automation system for disabled people built on top of visual studio with C language

V. REQUIREMENT ANALYSIS

A.   *Hardware Requirements*

-       OS -Windows
-       Processor- Intel Pentium or Higher
-       Hard disk- 160GB Minimum
-       RAM - 512MB

B.   *User Requirement*

-       Wireless mic

- Speaker

C. Software Requirement

- Blind Assist Window Application
- Microsoft Visual Studio 2015

VI. BENEFITS OF PROPOSED SYSTEM
- The application will greatly simplify and speed up the automation of applications.
- Will act as automation tool
- It overcomes the physical disabilities
- As the current system is manual it does not require any sophisticated training for the User of the system.
- This project will cater facilities to all the users.

VII. SYSTEM EVALUATION

A. Advantages
- The system can be further customized to greater extent to cater to the needs of automation.
- The applications will greatly the automation Process.
- Multiple algorithms working together to produce best results.
- The system is easy to deploy, safe with convenient operations.
- Access to authorized personnel only.

B. Disadvantages
- Designing the framework architecture for the sys- tem can be challenging part to make framework dynamic.
- Can help people with speech impairment.
- The voids in education system can be found.

VIII. CONCLUSION

The goal of this project was to create a Voice Recognition System which will be so accurate that if a voice input is provided, it will recognize the voice by autocorrecting the grammar of the input voice and by converting it to text and it will provide the output according the given input. Future work would include the design and building of a battery backup system. Improvements to the locking mechanism could also be another aspect for future work. This project could also be expanded to multiple doors and windows. It can be coupled with existing home automation devices to add thoroughness and completeness to the system. Currently the server decides whether the home system has failed or running and alerts the mobile user. This might result in a small delay between the failure in home system and alerting the user. In future it is possible to make the home system send alerts directly to the mobile user if there is a failure in the ADSL connection. Though this may result in an increase in the cost of the system this is useful especially if security is a critical requirement. Currently the home system is a standalone application and it doesn't have a web interface. In future web interface can be added to the home system.

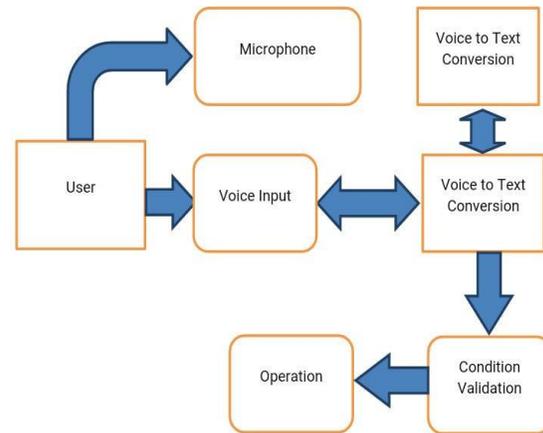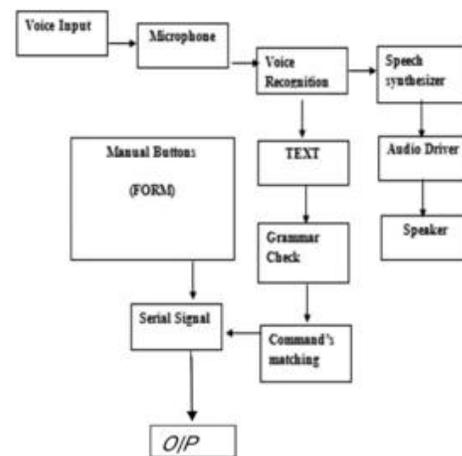## ACKNOWLEDGMENT

Figure.1. S y s t e m Design

Figure.2. System Architecture

IX. REFERENCES

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