



AISHA (ARTIFICIAL INTELLIGENT SIMULATED HUMANOID ASSISTANT)

Engineering

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ABSTRACT

In day-to-day life in the fast moving world, we need someone for personal assistant. Thus we need to develop a personal assistant having brilliant powers of deduction and ability to interact with the surroundings just by one of materialistic form of human interaction that is HUMAN VOICE. The Bluetooth device captures the audio signals and then processes the request so that device can respond to the user in-built speaker. For Example, if you ask the device "Setting an alarm" or "play music" using its built-in skills, it can perform the action and then return the response to the users through the connected device.

KEYWORDS

Artificial intelligence, Natural Language processing, Speech to Text, Text to Speech module.

I. INTRODUCTION

There is an unbelievable change in technology over the last few decades. Believe it or not, in day-to-day world you can interact with machine. Obviously interacting to machine means giving it some input but the input is typing rather it is your own voice. so easy access to machine with voice command innovation way of human system interaction. To achieve this, we need to use Speech to text and text to speech API for understanding the input. But some company are trying to use it in generalize form. When you say to system that setting an alarm, remind me etc, it's amazing. After understanding the importance of this we have decided to make a system that can be placed anywhere and you can ask it to help you do anything for you by just speaking with it. In addition to this you can use this system connecting wi-fi devices and make them communicate with each other in future. And this system is very handy for day to day use and it can help you better functions.

II. RELATED WORK

An intelligent voice assistant system on window platform was developed as an window application that use the natural language processing which helps you to ask the query to the system via the voice command. The design system AISHA (Artificial intelligent simulated humanoid assistant) works on local query like setting an alarm, play music, copy the document, paste the data etc not using internet connection .But all this query work in existing system using internet connection. And this will helps users to operate all this query from anywhere the user can seat. For Example user can seating on bedroom and his laptop in another room but he forgot to shutdown the laptop then he give command through voice AISHA shutdown the laptop then the laptop could be shutdown. Everyone must be familiar with cortana, Siri, Google assistant etc are the virtual assistant. You ask the question to this entire assistant you get an answer. And give a command get results. Amazon's Alexa is a virtual assistant manages to itself apart. And mobile based virtual assistant like Siri, window base virtual assistant like cortana. Here some features of cortana.

Set timers and alarms: You can tell cortana to wake up every day in morning at 6 am or ask it to set timers.

Stream music: Ask cortana to play a song and it will stream it from music library.

Perform Operation: You tell to cortana that copy the folder and paste it on the desktop.

Answer Your Questions: You ask something to cortana then the cortana can give answer to what you ask.

III. METHODOLOGY

A. System Architecture:

The design of architecture works like in following way.

1. User can give command through voice.
2. Voice analysis and conversion to text.
3. Data store and processing in database.
4. Gives output in the form of text.

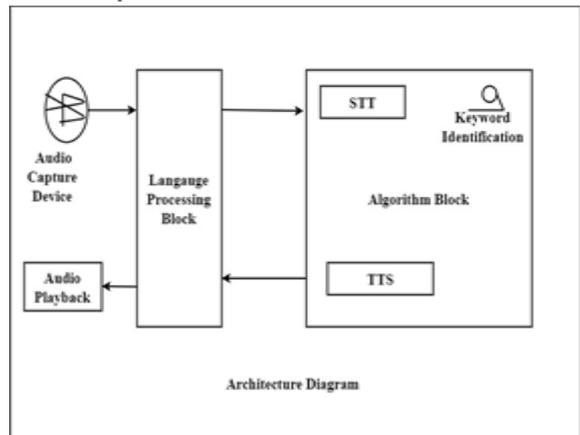


Fig 1. Architecture diagram for AISHA.

In the first phase user can give command in the form of voice and store as an input for the next phase for processing. In next phase the voice is converted into text using STT. After that in next phase the converted text is analyzed and processed using python script to identify the response. Finally response is identified output is generated from simple text to command conversion using TTC.

The basic architecture of AISHA shown in fig 1.

B. System component:

i. SST (Speech to Text): Here the speech can be converted into text.

ii. TTC (Text to Command): Here the text is converted into command.

iii. Keyword identification: Here keyword can be identifying.

IV. LITERATURE SURVEY

Natural language processing is two way communications with system and device one is written communication and another is verbal

communication with system and device. Written communication easier than the verbal communication. In written communication like syntax, semantic all analysis can be check. And in verbal communication all this analysis or all the process can be done.

Cortana is the virtual assistant and knowledge navigator for window devices. In cortana system all the operation likes "setting alarm", "play music", "Go to document folder and open it" all this operations can be perform using internet connection. Cortana uses default Firefox search engine. And this entire search can be done using search engine only. Search things can be open using internet explorer.

In this paper describes about technology that is used by the computer to transfer the voice signal to an associated text. Speech recognition system is essential a kind of pattern recognition system, including two basic units such as feature extraction, pattern matching library. The input speech is converted into text after that this text is converted into the speech. And whatever query ask to the system is give answer. The query asks by the system using human voice. Analyze input voice signal. Voice should be converted into text after that the text should be return to the users.

V. PROPOSED SYSTEM

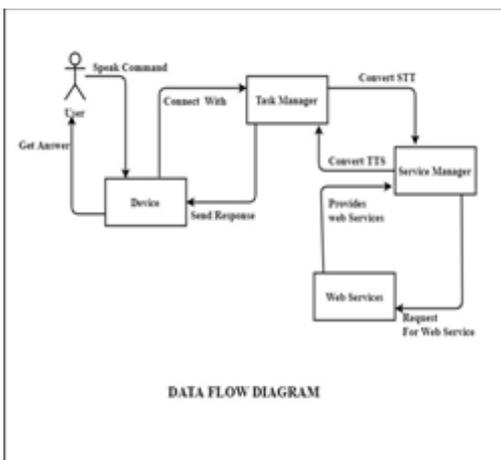


Fig 2. Dataflow Diagram

The proposed system provide below features:

- 1). It always keeps listening with its name assign to it and gives response calling with its assigned functionality.
- 2). User can give command to the system using their own voice as an input.
- 3). we can interact with system using Bluetooth device. Using Bluetooth device we can give command to the system.
- 4). Performing operation based on voice commands and give back computed solution using voice command.
- 5). All the operation can be perform without internet connection.
- 6). Other feature likes "Setting an alarm", "Play music", "Setting reminders" can be performed using input as user's voice.
- 7). In this system we give input as a voice after giving command as voice, voice can be converted into text and then give response back to the user as a text audio.

VI. CONCLUSION

AISHA (Artificial intelligent simulated humanoid assistant) system can be use natural language processing and integrated with artificial intelligence technique to achieve smart assistant that can be solve users query. This system is design to minimize user's efforts to communicate or interact with any system and subsystem. To achieving all this human life is comfortable. Specifically this system is designed to interact with other system using human voice as an input. In this system we can communicate with system using our own voice as input we can ask query like "Setting an alarm" system can be give ease access to the users without using internet connection.

VII. ACKNOLEGMENT

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VIII. RESULT

Our result involves or performs all the operation without using internet connection. We can interact with system using input as a voice.

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