

# IOT with Voice based AI and Smart Wearable's

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**Abstract** - This research aims to present a study about voice recognition systems devices with artificial intelligence and smart wearable's with the help of Internet of things. Technology has been moved on. This is almost certain that robotization is the fate of the future. The Internet of Things (IoT) is a term of digital devices used to share data through a network. IoT does not require transfer data person to person. The IoT makes daily life experiences with the help of Artificial intelligence and smart technology. The main strategy of Artificial Intelligence is to create smart systems and to perform human Intelligence in Machines.

**Key Words:** IOT, Machines, AI, Voice AI, Smart wearable's

## 1. INTRODUCTION

In today's world number of applications or devices make use of Internet of Things. It just depends on perspective like technology. For instance house security frameworks educate you to open the entryway with help of associated gadgets (IoT).

Since there is a gigantic development in number of gadgets and the information produced is likewise tremendous. Huge information and IoT run with each other.

People would interact with technology in their homes through voice and gestures with the help of Artificial Intelligence and smart devices.

Artificial Intelligence can create programs on shrewd machines that work and think brilliantly, similar to the way people can think.

Wearable technology which are electronic devices use in fashion wearable or some wearable devices, are smart electronic devices. The smart devices use micro-controllers, different sensors, microprocessors, and storage.

## 2. Artificial Intelligence

Artificial Intelligence (AI) is a term of Science which Find solutions to complex problems in a more human-like.

Artificial intelligence is technology which includes mathematics and engineering problems. Major terms of AI design of computer machines according to human intelligence are problem defining and learning. [1]

Some elements to define artificial intelligence are as following.

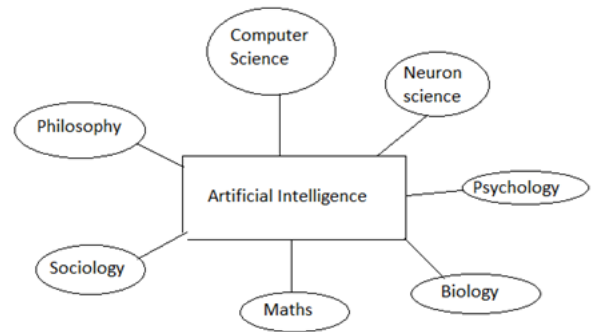


Fig -1: Elements to define AI

### 2.1 Devices

Some devices are developed to do the task or operations that human can decide. Devices include different sensors, microprocessors, and storage, to perform intelligence.

### 2.2 Voice Recognition

Some intelligent devices are designed to analyse human voice and understand the voice language to analyse and compile sentences; meanings of words when human interact to it.

Despite the fact that this experiment didn't actually include voice handling in any frame, the thought behind it stays to be a piece of the establishment of discourse acknowledgment innovation: use normal dialect as contribution to trigger an activity.

#### 1. Input method

This method can involve Interactive Graphical User Interface and speech Engine. Speaker can speak to the application through gadget (e.g., Microphone).

#### 2. Method of voice Recognition

The voice detected by the sensors will be prepared and carried on to the speech engine. Speech engine find the correct or surmised content and the engine interpreter change over the looked speech into content.

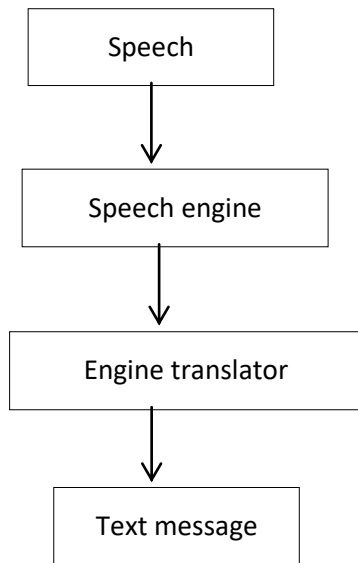


Fig -2: Method of voice recognition

### 2.3 Voice Assistant

Voice recognition system framework constitutes the tech system on the way to wind up the de facto methods for interaction between people and innovation.

People can talk in excess words for each moment overall, yet can just write some making.

Speaking is simpler than typing and clicking. All things considered, voice recognition precision is the thing that decides if these voice assistants turns into can't-survive without feature.

This obviously makes one wonder as to which voice collaborator as of now out available is the best; as far as speech accuracy, advancement, and ease of use and cohesiveness with other savvy frameworks. [2]

### 2.4 Amazon Alexa

Amazon Alexa brilliant speaker and also the recently disclose Echo devices, Alexa surely understand a voice. There is no limitation on Alexa from amazon. Alexa adjusts to your voice after some time, balancing any issues it might have with your specific pronunciation.

Speaking of skills, Amazon's Alexa Skills Kit (ASK) is maybe what has moved Alexa forward as a bonafide stage. ASK enables outsider designers to make applications and take advantage of the energy of Alexa while never requiring local help.

Another tremendous offering point for Alexa is its joining with brilliant home gadgets, for example, security cams, entryway locks, other systems, light and indoor regulators. Finally, giving customers add up to manage of their home

while they're relaxed on their lounge chair or in a hurry. With Amazon's Smart Home Skill API, you can empower clients to control their associated gadgets from a huge number of Alexa-empowered endpoints.

In the event that you ask Alexa to rearrange your waste cart, she'll simply experience Amazon and request them. Truth be told, you can arrange a large number of items off of Amazon while never lifting a finger. [2]

### 3. Wearable systems

Wearable innovation is a blanket term for hardware that can be worn on the body, either as an accessory or as part of material used in clothing. There are numerous kinds of wearable innovation yet the absolute most mainstream gadgets are movement trackers and smart watches. [3]

#### 3.1 Google glass

Google Glass offers an enlarged reality. Encounter by utilizing visual, sound and area based inputs to give significant data. For example, focus on street address plate it shows the directions on frame. User can likewise control the gadget physically through voice orders and a touchpad situated on its casing. [4]

### 4 IOT with Voice based AI and Smart Wearable's

The Internet of Things (IoT) world may be exciting. The Internet of Things mentions the interrelated gadgets that can exchange information over a system without requiring PC and human communication gadgets. Internet of Things is straightforwardly and indirectly way connected with everyday way of life substance over the globe. One of the real highlights of wearable technology is its capacity to interface with the web, empowering information to be traded between a system and the gadget. The voice based AI and smart wearable's work at a time using IoT then human can be easily techno savvy and get more benefits.

### 3. CONCLUSIONS

Voice recognition enables physically challenged people helping as a guide of them. Physically challenged individuals can do work without pushing any trigger and without the assistance. Smart wearable's can help human in any situations for tracking and exchange data. It is not much time consuming, and does the task in an effective way with user friendly environment. This innovation is being utilized as a part of the corporate companies, house, military, business, and furthermore for online administrations.

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