

PERSONAL OFFICE ASSISTANT



Smart Assistant

About the Client

The client is an emerging startup in the field of office automation and artificial intelligence. After manufacturing considerable products in the area of surveillance, the client is now interested to deliver his services in manufacturing smart assistant devices so to fulfill day-to-day tasks and responsibilities.

Summary

To increase the office productivity along with smoother functioning, the idea is to develop an embedded intelligent assistant that recognizes a person's speech during a meeting and stores it. Moreover, after a meeting, the stored audio files are converted and are available in text form also, hence avoiding the need of noting down minutes of meeting. With inbuilt data analytics, this device also provides a report after analyzing the speech behavior thereby providing valuable suggestions to the user's performance.

The Challenge

The device must be compact, lightweight, and portable with a unique design. Remotely and in person, before a meeting, it should send the related reminders to the employees, and as soon as the meeting starts it should welcome all the employees thereby announcing the meeting agenda. During a meeting, it must effectively monitor and record the office meetings and after the meeting, it should prepare and share MoM with attendees. This smart assistant should be able to analyse each employee's statement and accordingly give alerts for an individual's speech performance.

Our Solution

This assistant has an inbuilt embedded system that requires less power and so the processor is quite small and draws less power from the source, hence the design of this device is kept compact. A smart speaker is integrated which will allow any employee to book the meeting room via voice commands, and as the meeting starts it will connect to the local server via Wi-Fi connectivity and will welcome the employees with a welcome note thereby announcing the agenda of the meeting. The latest audio processing SoC is used which is suitable for stereo multichannel applications.

INDUSTRY

Consumer Electronics

KEY CHALLENGES

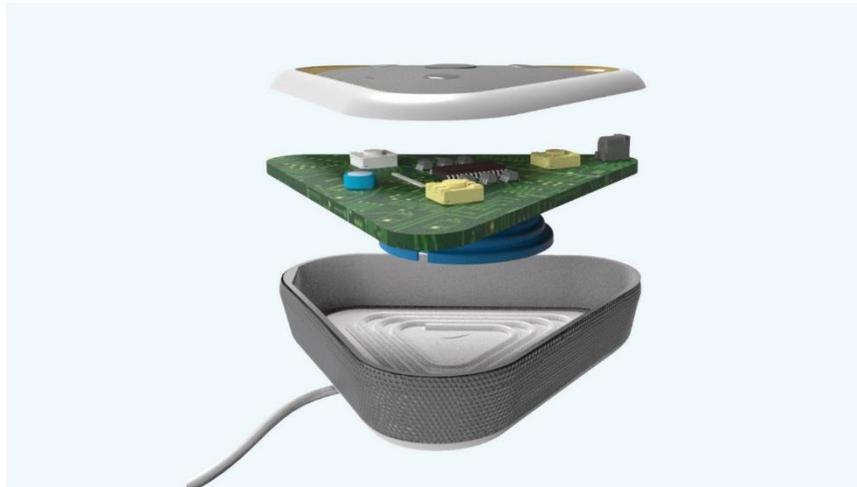
- Converted a concept to a real time idea.
- Lightweight and compact
- Speech recognition system
- Data analysis

SOLUTION

- Compact
- Smart speaker functionality
- Latest audio processing SOC
- Omnidirectional Microphone
- USB 3.1 with Wi-Fi connectivity
- Server-side API based data analytics

Benefits

- Better audio processing speed
- Better power management
- Time saving
- Affordable
- Efficient



An omnidirectional microphone is embedded in the device to provide 360-degree audio. Moreover, to connect remotely for a meeting the device will firstly get connected to a laptop via USB 3.1 and later will connect to the local network via Wi-Fi connectivity, hence allowing a faster rate of data transfer. Natural Language Processing algorithm is used which helps in allocating human resources effectively and thus reduces costs and inefficiencies which makes the speech recognition process very efficient. This assistant gets connected with a centralized server and on using the API server-side the backend data analytics will be performed for the stored data of the employees, which will later interact with the API and will send feedback/suggestions to the employees by converting the stored audio files to text based documents.



Benefits

- Light weight and compact
- Better power management
- Better audio processing speed
- Time saving
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- Affordable



Benefits Against Alternatives

A device that is rugged and portable and preferable than most of the than ordinary assistant devices. As soon as a meeting is scheduled the assistant will connect with the local server via Wi-Fi connectivity. With the inbuilt omnidirectional microphone, the user can convey his statement and thus his voice gets recognized and stored in the database. Moreover, for remote meetings, your device will get connected with your laptop via portable USB cable, hence the user will be able to speak using the microphone and a remotely connected user's voice will also be heard via the inbuilt speaker. After the meeting ends this assistant will convert your audio files to text form and will analyze your speech behavior by giving valuable suggestions.

Our Value Addition

Optimized Solutions have developed an office assistant which allows the meetings to be more efficient, hence allowing smoother functioning of your office. No need to worry if you cannot remember about your performance during a meeting, this assistant will effectively store and analyze your speech behavior.