

**TEXT to SPEECH & SPEECH to TEXT CONVERTER**

Submitted to:

Submitted by:

Dr. Vandana Sood

Sayan Bhandari (2110993831)

Shivashish Bhunia

(2110993833)

Department of Computer Science

Chitkara University, Punjab

**Table of Contents**

Introduction 1

About our project 2

About the coding ……………………………………………………………………………...3

Backend Code…………………………………………………………………………………………3

GUI Code 3

Advantages of Our Project 4

Conclusion……………………………………………………………………………………..5

**INTRODUCTION**

Text to speech (TTS) is the ability of a computer to produce spoken words by converting text to voice. In other words, Text-to-speech software is a speech synthesizer that vocalizes text in real time in a natural way.

This software helps people who are struggling with reading. This project contains various options to customize the speech like the voice(male\female), speed of the text, muting the text and downloading the audio to our desired location.

Speech to Text (STT) enables the real-time transcription of audio streams into text in more than 90 languages and dialects. It can be tailored to your vocabulary to build custom recognition models, further enhancing accuracy.

This software is mainly used in voice assistant like Google, Cortana, Siri etc. this software mainly recognizes the voice of the person and convert them into text and further process them into other applications. We have made out STT as simple as it can, as it is in its development stage it may contain errors and bugs.

**ABOUT OUR PROJECT**

We have created an interface where we can do TTS and STT conversions.

**ABOUT THE CODING PORTION**

**BACKEND CODE:**

1. We have used pyttsx3 module for text to speech conversion.
2. Speech Recognition for recording the speech of a person.

**GUI CODE:**

1. We have used Tkinter for designing our TTS and STT application.
2. We have added 3 Tkinter windows first one is for the TTS and STT selection. Second is for the TTS conversion and the last is one for the STT conversion.
3. We have added buttons for the working of the application.
4. In TTS we have added Play, Pause, Mute, back, Download buttons
5. In STT we have added record button and back button

**ADVANTAGES OF TEXT TO SPEECH AND SPEECH TO TEXT**

TTS

1. It helps to listen to class notes, text books and electronic text.
2. It facilitates education.
3. It avoids eyestrain from too much reading.
4. It helps in learning languages which you do not know.
5. It helps in preparation of speeches by hearing your work read aloud.
6. It helps in listening e-books or e-material during journey.
7. It amuses children by letting your PC read stories to them when you are busy.
8. It helps seniors or those having vision problems.
9. It can be adapted easily to say whatever users want them to say.
10. It can help in reading large paragraphs and offers range of different accents and voices.

STT

1. Ease of communication – No more illegible handwriting
2. Quick document turnaround
3. Flexibility to work in or out of the office
4. Time saved with increased efficiency and less paperwork
5. Tedious jobs can be streamlined and simplified
6. Speech recognition software can produce documents in less than half the time it takes to type

**CONCLUSION**

Thus we have complete our TTS and STT project.