# VISVESVARAYA TECHNOLOGICAL UNIVERSITY
# JNANA SANGAMA, BELAGAVI

**Python Mini Project Report on**

## "Text to Speech and Speech to Text"

**Submitted in partial fulfillment of the requirements of the 3rd Semester in**

## MASTER OF COMPUTER APPLICATIONS

by

**Kavya P. Kulkarni**
**2KE22MC021**

**Megha S. Shirol**
**2KE22MC026**

**Under the Guidance of**

**Dr. Mahantesh M. Sajjan**
**Head of the Department**


**K L E Institute of Technology**

**Opposite Airport, Gokul, Hubballi, Karnataka 580 027**

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# CERTIFICATE

This is to certify that **Kavya P. Kulkarni** and **Megha S. Shirol** bearing **2KE22MC021** and **2KE22MC026** respectively has satisfactorily completed the Python Mini Project entitled **Text to Speech and Speech to Text** in the academic year **2023-24** as prescribed by VTU for III Semester of Master of Computer Applications degree.

**Dr. Mahantesh M. Sajjan**
**Guide**

**Dr. Mahantesh M. Sajjan**
**HOD**

**K L E Institute of Technology**
**Opposite Airport, Gokul, Hubballi, Karnataka 580 027**

**Department of Master of Computer Applications**

# DECLARATION

We, **Kavya P. Kulkarni** and **Megha S. Shirol**, students of 3rd Semester MCA, KLE Institute of Technology, Hubballi, bearing USN **2KE22MC021** and **2KE22MC026** respectively hereby declare that the SDA entitled "**Text to Speech and Speech to Text"** has been carried out by us under the supervision of guide **Dr. Mahantesh M. Sajjan**, HOD and submitted in partial fulfillment of the requirements for the award of the Degree of Master of Computer Applications by the Visvesvaraya Technological University during the academic year 2023-2024. This report has not been submitted to any other Organization/University for any award of degree or certificate.

**Kavya P. Kulkarni**
**2KE22MC021**

**Megha S. Shirol**
**2KE22MC026**

# ACKNOWLEDGEMENT

## K L E Institute of Technology

## Opposite Airport, Gokul, Hubballi, Karnataka 580 027

We have taken sincere efforts to complete the Mini Project **"Text to Speech and Speech to Text".** However, it would be incomplete without naming the people who made it possible, who is constant guidance and encouragement made this project perfect.

We would like to express our sincere and heartily thanks of gratitude to our beloved Principal **Dr. Sharad G. Joshi** and Deans **Dr. Manu T. M & Dr. Yerriswamy T.** for providing with this wonderful opportunity to work with this project.

We are deeply grateful to our beloved HOD of Master of Computer Applications Department **Dr. Mahantesh .M. Sajjan** for having provided us the academic which nurtured our practical skills in contributing to success of our project.

We are highly indebted to **Dr. Mahantesh M. Sajjan** for guidance and constant supervision as well as for providing necessary information regarding the project.

We would like to thank all the faculty members of MCA Department for their constant support and guidance which added value to our project.

Last but not the least we would like to thank our parents and beloved friends for their moral support

**Kavya P. Kulkarni**

**Megha S. Shirol**

# Abstract

Text-to-speech (TTS) and speech-to-text (STT) technologies play pivotal roles in bridging the gap between written and spoken communication. TTS converts written text into natural-sounding speech, offering accessibility solutions for visually impaired individuals and facilitating hands-free interactions with devices. This technology has far-reaching applications, from enhancing user experiences in virtual assistants to enabling audiobook narration and language learning platforms. As the demand for seamless verbal communication continues to grow, TTS remains a crucial tool in making information more universally accessible and engaging.

On the flip side, speech-to-text (STT) technology empowers users to convert spoken words into written text, providing a versatile and efficient means of transcription. STT finds applications in various domains, ranging from voice-controlled virtual assistants and transcription services to voice-activated devices. This technology not only enhances productivity by transcribing spoken content rapidly but also serves as a valuable tool for individuals with mobility impairments. With continuous advancements, TTS and STT contribute significantly to breaking down communication barriers, fostering inclusivity, and driving innovation in the realm of human-computer interaction.