Dr. Vishwanath Karad
MIT WORLD PEACE UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS

FoET

DEPARTMENT OF COMPUTER ENGINEERING AND TECHNOLOGY

BTech Capstone Project Academic Year 2023-2024

Cutting-Edge Translator Tool from English to Sign Language and Braille

Name of the Students:

Anmol Prasad 1032200224

Kushagra Pokharna 1032200499

Om Pawar 1032200559

Shreyas Kawale 1032200754

❖ **Group ID:** P8

❖ **Name of the Internal Guide:** Prof. Himangi Pande

❖ *Summary of Work:*

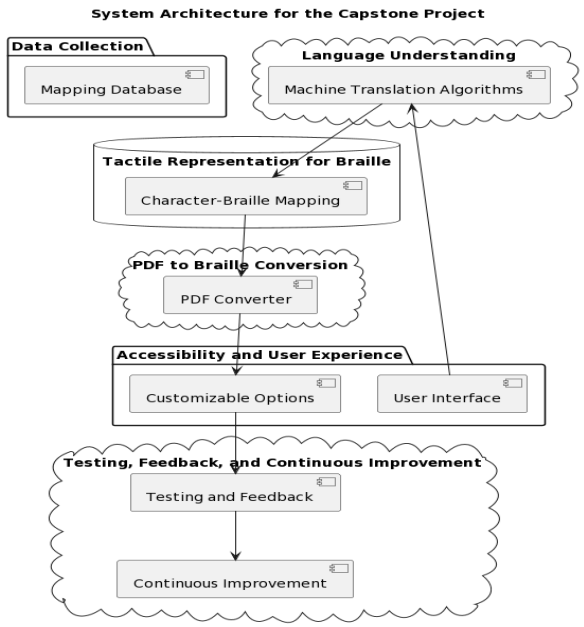
Abstract:

This project develops an innovative translator tool that converts English text into Sign Language and Braille, aiming to bridge the communication gap for the deaf and blind communities. The tool leverages advanced machine translation algorithms and a comprehensive mapping database, and includes features like PDF to Braille conversion and an intuitive user interface. Rigorous testing with the target communities ensures continuous improvement, making this tool a step towards a more inclusive and accessible world

Objectives:

1. Use machine translation algorithms for seamless language conversion.
2. Create a comprehensive mapping database for Braille representation.
3. Incorporate the functionality to convert entire PDF documents into Braille.
4. Design an intuitive user interface catering to users with diverse abilities.
5. Conduct rigorous testing with the deaf and visually impaired communities for continuous improvement.

➢ Methodology:



➢ Result Analysis: *Graph / Table as applicable*

➢ Conclusion:

In wrapping up, this project has laid the groundwork for enhancing communication accessibility for the deaf and blind communities. The developed tool stands as a testament to the potential of technology in fostering inclusivity. The successful implementation of features like PDF to Braille conversion and an intuitive user interface has broadened the scope of text accessibility. The continuous improvement through rigorous testing underscores the project's commitment to user-centric design. Looking ahead, this tool could serve as a foundation for future innovations in the field of accessible communication technologies.