CANTILEVER AIML PROTERNSHIP 2025

ABSTRACT

Project Title:

English to Regional Language Converter with Pronunciation

Team Details:

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Abstract:

In today's increasingly globalized world, the ability to understand and communicate across languages is essential. This project focuses on building a **Real-Time Translation and Pronunciation Tool** using Python that not only translates text from English into a variety of regional and international languages but also provides accurate **romanized pronunciations** for selected non-Latin script languages like Japanese, Chinese, and Korean.

The system is built with an intuitive **Graphical User Interface (GUI)** using Tkinter, allowing users to input text, select a target language from a dropdown menu, and instantly view the translated result. To enhance usability, especially for language learners or travelers, the application integrates specialized libraries for script transliteration—**pykakasi** for Japanese (Hepburn romanization), **pypinyin** for Chinese (Pinyin conversion), and **hangul-romanize** for Korean (academic rules). These features are combined with the **Google Translate API**, which handles robust and multilingual text translation.

This project bridges a critical gap by supporting not just translation but also **phonetic understanding**, which is crucial in mastering pronunciation and ensuring effective communication. It is a step toward more accessible multilingual interaction and can be extended to support additional languages and speech synthesis in the future.

Keywords:

Real-time translation, pronunciation tool, romanization, multilingual support, Tkinter GUI, Google Translate API, Japanese Hepburn, Chinese Pinyin, Korean Hangul romanization, language learning, transliteration, non-Latin scripts, regional language translation.