SIGN LANGUAGE TRANSLATION APP

ABSTRACT

The Sign Language Translation Tools project aims to bridge the communication gap between the deaf and hearing communities by leveraging cutting-edge technologies such as Artificial Intelligence (AI), Computer Vision, and Augmented Reality (AR). This innovative solution focuses on developing real-time translation systems that convert sign language into spoken or written language and vice versa, enabling seamless communication in various settings like education, healthcare, workplaces, and public spaces.

The project addresses key challenges faced by the deaf community, including limited access to education, employment barriers, and social exclusion. By creating tools such as AI-powered translation apps, smart gloves with gesture recognition, and AR-based communication platforms, this initiative empowers deaf individuals to interact independently and confidently with the hearing world. These tools are designed to be user-friendly, affordable, and adaptable to different sign languages, ensuring global scalability.

Aligned with the Sustainable Development Goals (SDGs), particularly SDG 10 (Reduced Inequalities), SDG 4 (Quality Education), and SDG 8 (Decent Work and Economic Growth), the project promotes inclusivity, accessibility, and empowerment. It also fosters collaboration between technologists, educators, policymakers, and the deaf community to create sustainable and impactful solutions.

The expected outcomes include improved communication, enhanced educational and employment opportunities, and greater social inclusion for the deaf and hard-of-hearing population. By combining technology with empathy, this project strives to create a more equitable and inclusive world where no one is left behind.