



Sign Language

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ABSTRACT-

Sign language is a visual language that uses a combination of hand gestures, facial expressions, and body language to communicate meaning. It is used by deaf and hard-of-hearing individuals as well as those with normal hearing who may need to communicate with them. Sign languages are not universal and differ from country to country, with American Sign Language (ASL) being one of the most well-known. Sign language is a complete language with its own grammar and syntax, and it is recognized as an official language in many countries. Sign language is an important tool for communication and social inclusion for deaf and hard-of-hearing individuals, and efforts to promote its recognition and use are ongoing.

INTRODUCTION

Sign language is a unique language that is primarily visual in nature, using a combination of hand gestures, facial expressions, and body language to convey meaning. It is used as a primary means of communication by deaf and hard-of-hearing individuals and is also used by those with normal hearing who may need to communicate with them. Sign languages are not universal and vary from country to country, with American Sign Language (ASL) being one of the most well-known.

Sign language is a complete language with its own grammar, syntax, and vocabulary, and it is recognized as an official language in many countries.

It is a crucial tool for communication and social inclusion for deaf and hard-of-hearing individuals, and efforts to promote its recognition and use are ongoing. In

recent years, there has been a growing recognition of the importance of sign language, and efforts are underway to promote its use and improve accessibility for the deaf and hard-of-hearing community.

Speech impaired people use hand signs and gestures to communicate. Normal people face difficulty in understanding their language. Hence there is a need of a system which recognizes the different signs, gestures and conveys the information to the normal people. It bridges the gap between physically challenged people and normal people.

LITERATURE SURVEY

Speech impaired people use hand signs and gestures to communicate. Normal people face difficulty in understanding their language. Hence there is a need of a system which recognizes the different signs, gestures and conveys the information to the normal people.

It bridges the gap between physically challenged people and normal people. Sign Language is the only tool of communication for the person who is not able to speak and hear anything. Sign language is a boon for the physically challenged people to express their thoughts and emotion.

In a study by Jang and Kim (2020), the authors analyzed the role of collaboration websites in the fashion industry. They found that collaboration websites provide a way for emerging designers to showcase their work and connect with established brands.

Conference proceedings: Sign language researchers often present their work at academic conferences such as the International Congress on the Education of the Deaf, the World Federation of the Deaf Congress, and the Association for Computational Linguistics conference.

Government reports: Many governments have published reports related to sign language, including policy documents, research studies, and funding initiatives.

These reports can provide a useful overview of the current state of sign language projects in a particular country or region,

There are many online resources related to sign language, including websites of sign language associations and advocacy groups, as well as online forums and social media groups dedicated to sign language. These resources can provide a valuable source of information on sign language projects and initiatives.

PROBLEM STATEMENT

Speech impaired people use hand signs and gestures to communicate. Normal people face difficulty in understanding their language.

Hence there is a need of a system which recognizes the different signs, gestures and conveys the information to the normal people.

It bridges the gap between physically challenged people and normal people. Despite progress in the recognition and accessibility of sign languages, there are still several challenges and issues that are faced in the current scenario of sign language.

Lack of recognition: While several countries have recognized their national sign languages as official languages, many other countries have not yet recognized them as legitimate languages in their own right. This can lead to limited access to education, healthcare, and other services for deaf and hard-of-hearing individuals.

Limited availability of resources: There is still a lack of comprehensive resources for learning sign languages, both online and offline. This can make it difficult for individuals who want to learn sign language to find quality resources, and can also limit the availability of educational materials for deaf and hard-of-hearing students.

Limited access to technology: While there are efforts to develop sign language recognition software, it is still not widely available or accessible.

FUTURE SCOPE

The scope of a project involving sign language could be quite broad, depending on the specific goals and objectives of the project. Here are some possible areas of focus:

Language education: A project could focus on developing educational resources and programs to teach sign language to beginners or improve the skills of existing sign language users. This could include developing online courses, creating instructional videos, or organizing workshops and classes.

Accessibility: A project could aim to make communication more accessible for people who are deaf or hard of hearing by promoting the use of sign language in public spaces, developing sign language interpreting services, or creating communication devices that can translate spoken language into sign language.

Linguistics research: A project could involve studying the structure and grammar of sign languages in order to better understand how they work and how they differ from spoken languages. This could involve conducting fieldwork and collecting data from sign language users, analyzing signed texts, or developing computational models of sign language.

Technology development: A project could focus on developing new technologies that use sign language, such as sign language recognition software, or creating tools that enable sign language users to communicate with non-signers more easily.

A project could aim to build a stronger community of sign language users and advocates, by organizing events, creating online forums or social media groups, or developing outreach programs that promote sign language and deaf culture.

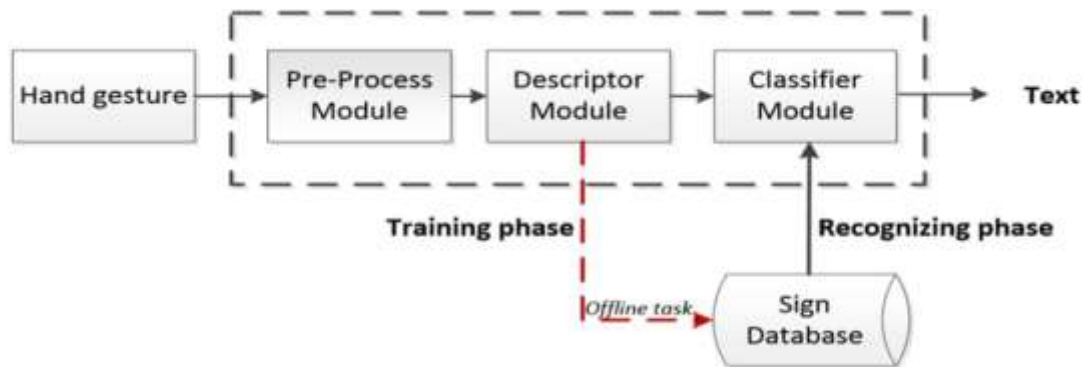
METHODOLOGY

The methodology of sign language involves the teaching and learning of sign language through a variety of approaches and techniques. Here are some of the common methodologies used in sign language education.

Total communication: This approach emphasizes the use of all available communication modes, including speech, sign language, and other visual cues, to facilitate communication between sign language users and non-signers.

OpenCV (Open Source Computer Vision Library) is a library of programming function mainly aimed at real-time computer vision [1] Originally developed by Intel, it was later supported by Willow Garage then Ieez (which was later acquired by Intel). The library is cross-platform and free for use under the open-source BSD license.

ACTIVITIE DIAGRAM-



ANDROID STUDIO

Android Studio is the official integrated development environment (IDE) for Android app development, created by Google. It is built on top of the IntelliJ IDEA platform and offers a powerful and comprehensive set of tools for developing Android applications.

PLATFORMS USED

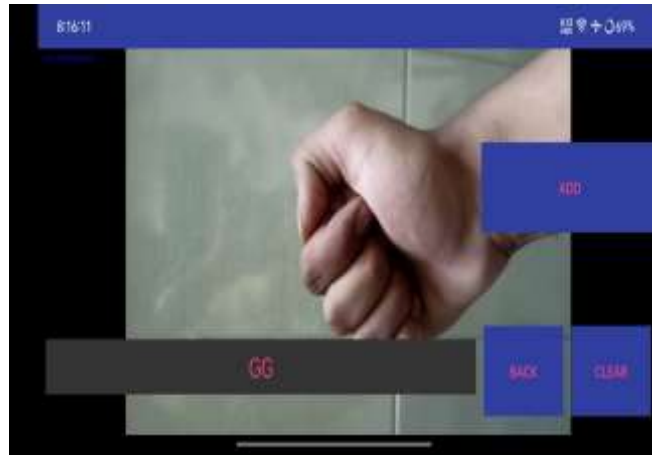
Android Studio

JavaScript programming language.

RESULT ANALYSIS

A Sign Language project is a app that can be useful for various individual to learn or improve sign languages it can provide a convenient and accessible way to practice signing and it will hel the dumb and deaf people so that they dont have to rely on interpreters.





REFERENCE

Manjeri N. Kondalwar and C.J Shelke for "Remote Administrative Trojan/Tool(RAT)", (2014)