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Design and Development of Video-Conferencing System with Sign Language Detection and Voice Recognition using Machine Learning Techniques

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Abstract: *Communication is the process of sending and receiving messages through verbal or non-verbal means, including speech or oral methods, writing or gestures and behaviour. In this modern and fast-paced world communication is now easier and more accessible to everyone whether it is audio or video communication. But this comes with some challenges, when we talk about a country or country like India, people speak a thousand languages and learning all languages is not possible, so with the help of voice to a text recognition system, supported by mechanical learning it is possible to transform human language and actions into an internationally accepted language like English. Thus it can be understood by all. Language is a correspondence medium. It's hard to speak with individuals who talk an assortment of dialects. Individuals with incapacities and others with extraordinary requirements Text correspondence is trying for individuals with dyslexia. Address right now, text and interpretation applications are accessible disconnected substances are accessible This is a report about a program that takes sound and changes it to message, as well as some other language, eminently Indian, is utilized to interpret their material dialects. It utilizes a direct Translator API. Speaking with the Deaf (deaf/mute) is a primary task in our society today; this may be due to the truth that their way of communique (symptoms or gestures) requires an interpreter at all times. The conversion of symbols into text may be executed by the use of system mastering algorithms. This project pursuits to construct video conference systems that can guide signal language discovery and translation. Powerful and advanced machine gaining knowledge of fashions with the right statistics could be used to obtain excessive efficiency and accuracy.*

Keywords: Sign Language Detection, Speech to Text Translation, Video Conferencing, Machine Learning

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