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ML-Based Indian Sign Language Translator for Speech-Impaired Individuals

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Abstract: *The people with speech disabilities usually face problems interacting with normal people, and there is a need to find a way to make communication with normal human beings easier. This paper introduces a system that recognizes static and real time signs gestures and translates them into text and speech.The system uses image processing and machine learning to identify hand signs from a dataset. After recognizing the gesture, it converts it into text and then into speech using text-to-speech technology. The system was tested on a standard dataset and showed an accuracy of 99% making it effective and reliable. This tool aims to make communication easier and more accessible for everyone. This system can be improved to recognize dynamic gestures and support more languages*

Keywords: Sign language, Convolutional neural Network, LSTM, Landmark.

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