

Sign Language Detection with Voice Command

Prof. H S. Borse¹, Kadlag Dhanashri Ramesh², Gitanjali Ramesh Date³,

Charoskar Priti Sharad⁴, Harshada Vijay Avhad⁵

Professor, Department of Artificial Intelligence & Data Science¹

Students, Department of Artificial Intelligence & Data Science^{2,3,4,5}

Pune Vidyarthi Griha's College of Engineering, Nashik, India

Abstract: *The process of recognizing and deciphering the movements, gestures, and symbols used in sign language is known as sign language detection. This device facilitates communication between those who are deaf or hard of hearing and those who are not familiar with sign language. It functions by examining video footage and identifying important elements such as body language, face expressions, and hand and arm movements. Using machine learning, particularly convolutional neural networks, signs and gestures may be classified with 95–98% accuracy. Its utility can be increased by including record and history tabs, and the dataset can be modified to accommodate various sign languages. This technology has the potential to significantly enhance communication and education for those who are hard of hearing.*

Keywords: Detection, Recognition, Movements, Symbols, Gestures, Communication in Sign Language;