

Real Time Communication System Powered by AI for Specially Abled

LITERATURE SURVEY

Specially abled people usually face some problems on normal communication with other people in society. It has been observed that they sometimes find it difficult to interact with normal people with their gestures. Because people with hearing problems or deaf people cannot speak like normal people, they have to depend on a kind of visual communication in most cases. Different sign languages exist around the world, each with its own vocabulary and gestures. Some examples are ASL (American Sign Language), GSL (German Sign Language), BSL (British Sign Language), and so on. This language is commonly used in specially abled people communities, including interpreters, friends, and families of the deaf, as well as people who are hard of hearing themselves. However, these languages are not commonly known outside of these communities, and therefore communication barriers exist between the specially abled people and the normal people.

Two Way Communicator between Deaf and Dumb People and Normal People. [1] This system consists mainly of two modules, the first module is Indian Sign Language (ISL) gestures from real-time video and mapping it with human-Understandable speech. Accordingly, the second module is the natural language as Input and card with equivalent Indian Sign Language animated gestures.

Sign Language Recognition System to aid Deaf-dumb People Using PCA. [2] This paper presents design and implementation of real-time sign language recognition system, to 26 gestures from the Indian sign language with MATLAB.

Sign Language to Text and Vice Versa Recognition using Computer Vision in Marathi. [3] In this system edge detection algorithm is used to recognize the input character image gray scale and recognition of the edges of the hand gesture. The system is able to handle the different input records images of alphabets, words, sentences, and translates them in text and vice versa. The system is designed to translate the Marathi sign language to text.

Sign Language Learning based on Android for Deaf and Speech Impaired People.[4] This research makes an Android-based application that can directly interpret Sign language presented by deaf people in written language. Translation process Starts with the detection of hands with OpenCV and translation of and signals. The K-NN classification. Tutorial features added in this application with the goal to train intensively to guide the user when using the sign language.

Hand Gesture Recognition for Indian Sign Language.[6] Gesture recognition system that will automatically capture, recognize and translate the alphabets of Indian Sign Language into corresponding text and voice.

References:

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