Literature Survey

Date	03 November 2022
Team ID	PNT2022TMID27674
Project Name	Project – Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	2 Marks

Abstract:

The project aims to develop a system that converts the sign language into a human hearing voice in the desired language to convey a message to normal people, as well as convert speech into understandable sign language for the deaf and dumb. We are making use of a convolution neural network to create a model that is trained on different hand gestures. An app is built which uses this model. This app enables deaf and dumb people to convey their information using signs which get converted to human-understandable language and speech is given as output.

S.No	Title	Author	Year	Abstract	Methodology
1	Converting Indian Sign Language to English text	Dhivyasri	2021	The system was able to convert sign language to the English language for a very small dataset.	The system uses various convolution neural network techniques.
2	Converting Arabic Text to Arabic Sign Language	Jamil	2020	The system successfully converted Arabic text to Arabic sign language with 87% efficiency and then show the corresponding sign language animatedly.	The system uses various text parsing and word processing techniques.
3	A System to translate English to ISL	Patel	2020	The System takes input in English and with a 77% accuracy it converts the input to SIGML animation, but the system is only shown to convert words or letters.	Authors have used various NLP and Google APIs.
4	AAWAAZ: A Communication System for Deaf & Dumb.	Anchal Sood, Anju Mishra	2016	The paper proposes a framework for recognizing hand gesture which would serve not only as a way of communication between deaf and dumb and mute people, but also, as an instructor. Deaf and dumb individuals lack in proper communication with normal people and	From the input RGB image, the hand is separated and morphological operations are performed to identify the region of interest. The features of the gesture are then extracted and compared to a database of features of standard gestures.

				find it difficult to properly express themselves. Thus, they are subjected to face many issues in this regard.	Finally, based on the comparison the output is generated.
5	A two-way communication system between deaf and normal people	Ahire	2015	The system only shows ISL signs for those words which are stored in the database and skip any other word.	The authors have utilized various machine learning algorithms and NLP techniques.
6	Full Duplex Communication System for Deaf & Dumb People	Shraddha R. Ghorpade, Surendra K. Waghamare	2015	One of the important problems that our society faces is that people with disabilities are finding it hard to cope-up with the fast-growing technology. The access to communication technologies has become essential for the handicapped people.	The methodology used is similar to except that, instead of bare hands, the system requires the user to wear gloves to extract hand gesture.