REAL-TIME COMMUNICATION SYSTEM POWERED

BY AI FOR SPECIALLY ABLED

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LITERATURE SURVEY

S.NO	TITLE	AUTHORS	DESCRIPTION
1.	Innovative study of an AI voice based smart device to assist deaf people	Dhaya Sindhu Battina	Development of an artificial intelligence voice-based smart device that include the Flex sensors, LCD module, microcontroller, SD card memory, hearing phones, etc.improves the quality of life without the assistance of some artificial means.
2.	Communication system for deaf and dumb people	Shraddha R. Ghorpade, Prof. Surendra K. Waghmare	The human hand comprises of numerous associated parts and joints, making it a complex object for input. The majority of the sign make utilization of both the hands together. Using webcam, capture the image of the hand to be tested. And convert the captured

			RGB image into HSV image and then into binary image. The edges are detected using canny edge detection.
3.	Two Hand Indian Sign Language dataset for benchmarking classification models of Machine Learning	Leela Surya Teja Mangamuri, Lakshay Jain Abhishek Sharmay	This dataset was benchmarked on six different classification models of machine learning by changing the parameters. Classification models are evaluated based on the HOG features extracted from the skin filtered image. An overall accuracy of 91.72% was achieved comprising of all machine learning models.
4.	Double Handed Indian Sign Language to Speech and Text	Kusurnika Krori Dutta , Satheesh Kumar Raju , Anil Kumar G , Sunny Arokia Swarny	The system is trained with double handed sign language by using a minimum eigenvalue algorithm. Here Logitech web camera is used for image acquisition and processing is performed in MATLAB.
5.	Moment Based Sign Language Recognition For Indian Languages	Umang Patel, Aarti G. Ambekar	Processed image, next step is feature extraction & followed by classifier, recognized gestures are displayed as Hindi & English text & played as Hindi & English audio
6.	Indian Sign Language Animation Generation System	Sandeep Kaur, Maninder Singh	This paper describes a system which generates HamNoSys corresponding to 100 words. These Notations are generated according to the Indian Sign Language. This

			system covers all the simple words to generate HamNoSys. This system has been tested on 100 words and results of the system are very encouraging.
7.	K-Nearest Correlated Neighbor Classification for Indian Sign Language Gesture Recognition using Feature Fusion	Bhumika Gupta, Pushkar Shukla, Ankush Mittal	INDIA proposed that recognition of gesture of Indian Sign Languages using static images where a test image is first categorized into a single or double handed gesture followed by its classification using a fusion of SIFT and HOG descriptors via K-Nearest Correlated Neighbours
8.	Machine Learning Techniques for Indian Sign Language Recognition	Kusumika Krori Dutta, Sunny Arokia Swamy Bellary	Over the years, communication has played a vital role in exchange of information and feelings in one's life. Sign language is the only medium through which specially abled people can connect to rest of the world through different hand gestures. With the advances in machine learning techniques, Hand gesture recognition (HGR) became a very important research topic.
9.	Educational Status of Differently Abled Persons and Developed Policies in India	Chiranjit Majumder	Education is utmost significant to lift up the socio-economic status of PCPs. But education of disabled persons has not received adequate intentness and resources that it requires.

			Physically Challenged Persons (PCPs), few who are enrolled in schools are not given equal opportunity for middle secondary and higher education levels. Many Disabled persons are educated but they do not get any work for earning in our society.
10.	Comprehensive SVM based Indian Sign Language Recognition	K. Revanth, N. Sri Madhava Raja	Different machine learning algorithms have been applied and SVM has achieved good result and comparison of different algorithm has been taken place. The classifiers used in this workflow comparison are Support Vector Machines, K – Nearest Neighbour, Logistic Regression and Naïve Bayes. The selected parameter for observations are accuracy, precision, fl score and recall. They are calculated with the inbuilt SK learn metric tool that is especially designed to calculate values for the machine learning model.