REAL-TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED

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LITERATURE SURVEY

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| **S.NO** | **TITLE** | **AUTHORS** | **DESCRIPTION** | |
| 1. | 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. |
| 2. | 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. | |
| 3. | 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. |
| 4. | 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. |
| 5. | 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 | |
| 6. | 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. |
| 7. | 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.. |
| 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 |