Literature Survey

Team ID : PNT2022TMID38587

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1	**Paper Title**	Ali, Aber & Zachariah, Mohammed & Hatamleh, Wisam & Tarazi, Hussam & Tripathi, Vikas & Amitay, Enoch. (2022). Human-Computer Interaction with Hand Gesture Recognition Using Reset and Mobile Net
	Problem definition	Hand gesture is very important in human-computer interactions (HCI). The most common way to build recognition system pretrained CNN.
	Methodology/ Algorithm	Convolution layer of neural network
	Advantages	The results we achieved on the test set for the whole data are with an accuracy of about 97% after applying many preprocessing techniques easy to handle.
	Disadvantages	The main contribution in this study is resizing the images to $64 * 64$ pixels converting from grayscale. Gesture recognition is difficult.

2	**Paper title**	Yerpude, Poonam. (2022). Non-Verbal (Sign Language) To Verbal Language Translator Using Convolutional Neural Network.
	Problem definition	we will have a look at the Image processing technique, for which we will be using the Convolutional Neural Network (CNN).
	Methodology/ Algorithm	CNN vision architecture model Stochastic Gradient Descent multi-level Perceptron Indian Sign Language.
	Advantages	Sensor based technique and Image processing It can be easily other hand gestures including alphabets (A- Z) and expressions.
	Disadvantages	This model will convert the signs to text or speech.

3	**Paper title**	Bansal, Sandhya & Wadhawan, Savita & Goel, Rajeev. (2022). mRMR-PSO: A Hybrid Feature Selection Technique with a Multi objective Approach for Sign Language Recognition.
	Problem definition	Here, MRMR is used as a pre-processor for the removal of redundant and irrelevant features reducing the computational burden of PSO. PSO chooses a feature subset having maximum accuracy with minimum features based on the classifier
	Methodology/ Algorithm	Hand gesture is one of the methods used in sign language for non-verbal communication. People have to rely on an interpreter or on some sort of visual communication.
	Advantages	Recognized by Gartner. Instant ROI. Easy To Use
	Disadvantages	Does not focus on building long term customer services.

4	**Paper title**	Reddiar Sandhya Rani, R Romana, R. Prema, 2021, A Review Paper on Sign Language Recognition for The Deaf and Dumb
	Problem definition	It is most commonly used by deaf & dumb people who have hearing or speech problems to communicate among themselves or with normal people.
	Methodology/ Algorithm	Hand gesture is one of the methods used in sign language for non-verbal communication. people have to rely on an interpreter or on some sort of visual communication
	Advantages	It is a software which presents a system prototype that is able to automatically recognize sign language to help deaf and dumb people to communicate more effectively with each other or normal people.
	Disadvantages	The user must be within a defined distance range, due to camera

5	**Paper title**	Ambavane, Pritesh & Karjavkar, Rahul & Pathare, Hemant & Relekar, Shubham & Alte, Bhavana & Sharma, Neeraj. (2020). A Novel Communication System for Deaf and Dumb People using gesture.
	Problem definition	A Dumb person throughout the world uses sign language for the Some people don't have the power of speech.
	Methodology/ Algorithm	Sign language recognition (SLR) and gesture-based control are two major applications used for hand gesture recognition technologies.
	Advantages	The speech which gets converted with the help of text to speech conversion and analog to digital conversion. Easy to handle.
	Disadvantages	Difficult to handle, High cost, Sensor technique