Real time communication system using AI for specially abled

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Problem statement:

In our society, we have people with disabilities. The technology is developing day by day but no significant developments are undertaken for the betterment of these people. Communications between deaf-mute and a normal person has always been a challenging task. It is very difficult for mute people to convey their message to normal people. Since normal people are not trained on hand sign language. In emergency times conveying their message is very difficult. The human hand has remained a popular choice to convey information in situations where other forms like speech cannot be used. Voice Conversion System with Hand Gesture Recognition and translation will be very useful to have a proper conversation between a normal person and an impaired person in any language.

Problem solution:

This paper describes the system that overcomes the problem faced by the speech and hearing impaired. The objectives of the research are as follow:

1. To design and develop a system which lowers the communication gap between speech hearing impaired and normal world.

2. To build a communication system that enables communications between deaf-dumb person and a normal person.

3. A convolution neural network is being used to develop a model that is trained on various hand movements.

This model is used to create an app. This program allows deaf and hard of hearing persons to communicate using signs that are then translated into human readable text.