REAL TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED

SUBMITTED BY

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PROBLEM STATEMENTS

PROBLEM STATEMENT 1: Dumb people use hand signs to communicate, hence normal people face problem in recognizing their language by signs made. Hence there is a need of the systems which recognizes the different signs and conveys the information to the normal people.

PROBLEM STATEMENT 2: To design a real time software system that will be able to recognize ISL hand-gestures using deep learning techniques. This project aims to predict the 'alphanumeric' gesture of the ISL system.

PROBLEM STATEMENT 3: Sign language uses lots of gestures so that it looks like movement language which consists of a series of hands and arms motions. For different countries, there are different sign languages and hand gestures.Also, it is noted that some unknown words are translated by simply showing gestures for each alphabet in the word.

PROBLEM STATEMENT 4: The only way the speech and hearing impaired (i.e dumb and deaf) people can communicate is by sign language. The main problem of this way of communication is normal people who cannot understand sign language can't communicate with these people or vice versa. The project aims to bridge the gap between the speech and hearing impaired people and the normal people. The basic idea of this project is to make a system using which dumb people can significantly communicate with all other people using their normal gestures. The system does not require the background to be perfectly black. It works on any background. The project uses image processing system to identify, especially English alphabetic sign language used by the deaf people to communicate and converts them into text so that normal people can understand.