

# **Real-Time Communication System Powered By AI For Specially Abled**

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Github Link: [IBM-EPBL/IBM-Project-11148-1659270620: Real-Time Communication System Powered by AI for Specially Abled \(github.com\)](https://github.com/IBM-EPBL/IBM-Project-11148-1659270620)

## **Solution's:**

1. A study on-manual sign involves the face region, including the movement of the lead, eye blinking, eyebrow movement, and mouth shape. This can be traced and interpreted to show the communicate.
2. The recognition of signs with facial expression, hand gestures, and body movement simultaneously with better recognition accuracy in real-time with improved performance helps in better communication.
3. Taking images or videos from a person by doing sign language. After taking the input, we process them and produce output by text/Audio which helps in training a model which can be used in real – time communication.
4. Blind people can use smart sticks to enable visually impaired people to find difficulties in detecting obstacles and dangers in front of them during walking and to identify the world around and it acts like an artificial vision and alarm unit.
5. The Keyboard for the deaf feature can support the sign language images and symbols in the keyboard as a different feature to convert between the normal person language and the deaf language.
6. The deaf person faces a very difficult problem to understand or identify the medicine's instructions. Idea is to prepare a sign language video have all the

instructions on the medicine and what is the quantity of the medicine that should be taken by the deaf person.

7. Object detection models can be used in order to specify the objects in front of the people with the position of the objects which can be said in text/audio as per the need.
8. A module can be developed for easy understanding of the sign languages which is used by specially challenged people.