

PROJECT DESIGN PHASE 2

Date	15 October 2022
Team ID	PNT2022TMID14463
Project Name	Real-time communication system powered by AI for specially abled
Maximum Marks	2 Marks

Functional Requirement

- **System** is presented as black box
- **Hearing impaired**, who that performs the signs
- **Normal hearing** is the passive user of the system

The System Requirements Can Be Specified,

1. Hearing impaired person should be able to perform sign that represent sentence
2. Hearing impaired person should be able to see the translation of sign to text
3. Hearing impaired person should be able to perform sign that represent word
4. Hearing impaired person should be able to perform sign that represent digit number
5. Hearing impaired person should be able to perform sign that represent alphabet letter 29
6. Hearing impaired person should be able to change the component (number/alphabet or word/sentence) for which translation to speech is provided

NORMAL FLOW

- The picture of the hand gestures done by users are captured and the alphabet letters are performed.
- The captured signs are analyzed by the system.
- The signs are converted into text and speech.

ALTERNATIVE FLOWS

- **Sign not received:**
 1. System shows that sign is not received.
 2. Output can't be detected if the sign was not recognized.
 3. Users need to performs again the alphabet letter until it is recognized
 2. Until the system shows that user is detected.
- **Enabling speech for this component:**
 1. Enable speech component