

Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID09233
Project Name	Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Correspondence between a speech and hearing-impaired individual and a normal person has always been a challenging task. It is very difficult for speech impaired individual to convey their message to normal people. Since normal people are not well-versed in Sign Language. Correspondence during the hour of crisis is a pain. Everyone can't stand to have human interpreters of Sign Language. Speech and hearing-impaired individuals might lose a ton of chances since they can't talk or offer their viewpoints verbally in circumstances like a meeting.
2.	Idea / Solution description	<ol style="list-style-type: none">1. Real time detection and conversion of Sign to Speech/Text and Speech/Text to Sign System will be very useful to have a proper conversation between a normal person and an impaired person.2. To design and implement a system using Artificial Intelligence, Convolutional Neural Network, Computer Vision and Image Processing to take hand gestures as input and convert them to Speech/Text.

3.	Novelty / Uniqueness	<ol style="list-style-type: none"> 1. An app called “VHearU” that uses Artificial Intelligence, computer vision, convolutional neural network and image processing. 2. It recognizes the image of sign language from the speaker and then translates it into speech/text.
4.	Social Impact / Customer Satisfaction	<ol style="list-style-type: none"> 1. Disabled people experience a great deal of difficulty with day-to-day activities. 2. The primary aim of this application is to increase the security, certainty and independence of speech-hearing impaired individual.
5.	Business Model (Revenue Model)	<ol style="list-style-type: none"> 1. AI can create income through direct customers and collaborate with health care sector and produce income from their customers. 2. Speech-hearing impaired employees of B2B services can use the app to pass messages concurring on to the organization.
6.	Scalability of the Solution	<ol style="list-style-type: none"> 1. AI innovation assists the specially abled with opening up new doors for availability consideration in the public eye and independent living. 2. It might also open the door to more cutting-edge and creative innovations to the most challenging problems faced by the specially abled.