

## Project Design Phase-I Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID42383
Project Name	Project - 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)	This initiative can help people communicate between people with special needs and people without them and the other way around.
2.	Idea / Solution description	These issues can be resolved by importing the necessary libraries into the Python code using AI technology. To narrow the communication gap with hearing persons, a prototype assistive gadget for Deaf-mute people is shown in this paper. This gadget may hang around your neck and is portable. With the aid of this device, a person can express himself through hand gestures to identify various signs that are based on gestures. This assistive device's controller was created to process gesture photos using a variety of image processing techniques and deep learning models to identify the sign. Using a text-to-speech module, this sign is translated into speech in real time.
3.	Novelty / Uniqueness	This project was put forth to address the need to translate many modalities into a common language that deaf and blind people can understand and exchange, such as translating photos into Natural Language (NL) text. This research produced a prototype that included cameras mounted to dark-coloured glasses, coupled with a portable computer, speaker, and microphone. We discovered a variety of technologies that can make it easier for people with disabilities to communicate among themselves and with the rest of society International Journal of Pure and Applied Mathematics Special Issue, but all of the

		technologies we looked into up until this point were only focused on one parameter or degree of disability among the three: blindness, deafness, and dumbness. None of the available technologies is sufficiently advanced to serve as a universal strategy for dealing with any combination of these three limitations. Therefore, in order to achieve this goal, we put forth a strategy that can be applied as a generic method by which people with any kind of mix of these three disabilities might imagine themselves as a member of this lovely environment.
4.	Social Impact / Customer Satisfaction	The issues facing Deaf people in various areas of daily life, such as work, higher education, healthcare, mental health services, emergency preparedness, technology, and government benefits, stem from society's lack of proficiency in ASL and lack of understanding of the Deaf population. It hinders the growth of receptive and expressive communication abilities (speech and language). Learning issues brought on by the language barrier lower academic attainment. Social isolation and a negative self-image are frequently consequences of communication problems.
5.	Business Model (Revenue Model)	In a climate where the pace is constantly accelerating, a firm must maintain a constant focus on its clients in order to keep them satisfied and, in turn, loyal. The case company focuses on offering ICT-based services to people with intellectual disabilities. Since the case company has already significantly increased its market share and expanded its operations in its core client categories, it has now decided that in order to sustain and increase its revenue, it is imperative to improve the customer experience. The issue the company is currently experiencing is to create a business plan and keep providing consumers with acceptable service in order to sustain and increase the company's returns.
6.	Scalability of the Solution	In the Deaf community, this is usually accepted, but hearing individuals might not understand it. One characteristic of the Deaf culture is thought to be directness in communicating. Touch and physical proximity are two more communication cues.