

Project Design Phase-I Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID00980
Project Name	Real-time communication 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)	<ul style="list-style-type: none">Communications between deaf-mute and a normal person has always been a challenging task. It is very difficult for mute people to convey their message to normal people. Since normal people are not trained on hand sign language. In emergency times conveying their message is very difficult. The human hand has remained a popular choice to convey information in situations where other forms like speech cannot be used.
2.	Idea / Solution description	<ul style="list-style-type: none">Voice Conversion System with Hand Gesture Recognition and translation will be very useful to have a proper conversation between a normal person and an impaired person in any language.The project aims to develop a system that converts the sign language into a human hearing voice in the desired language to convey a message to normal people, as well as convert speech into understandable sign language for the deaf and dumb.

3.	Novelty / Uniqueness	<ul style="list-style-type: none"> • With such a technology both the customer as well as people interacting with them get benefited. • No one needs to learn anything new. As usual dumb-mute can use hand signals and normal people can use speech. • With initial programming everything becomes easy.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> • Customer henceforth need not be dependent on any person to translate what they are trying to say. They become more independent and social. • They will not have any barriers to communicate, interact, travel, get educated, learn, explore, grow, follow passion etc. They will be able to lead a normal life like any other person.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> • The initial investment may be high, but requires less maintenance and servicing. • Once purchased it has a longer life-time. • In order to use it outdoors, it will be provided with long term batteries.
6.	Scalability of the Solution	<ul style="list-style-type: none"> • There can be more features that can be added which still improves the usage. • Accuracy and efficiency can be increased with constant monitoring and update.