

**Project Design Phase-I**  
**Proposed Solution Template**

Date	19 September 2022
Team ID	PNT2022TMID12764
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)	People who have hearing and speech disabilities find difficulties in communicating with others, especially with those who do not know sign language.
2.	Idea / Solution description	The deaf-dumb people need a system or a device which can convert sign language to speech and text and can convert speech to sign language, so that they can overcome their disability.
3.	Novelty / Uniqueness	Brainstorming and prioritising of ideas brought to the decision of having the following unique and novel features in it: 1. Providing recording feature for the final speech output will help them sharing thoughts to remote people 2. We can integrate a chat-bot so that it automatically responds to commonly used sentences. 3. Parental safety monitoring kind of system can be deployed for the child users which can protect them from abusers
4.	Social Impact / Customer Satisfaction	1. The customer feel in no way inferior to a normal person 2. Their hesitation for a conversation would reduce 3. No dependency on a mediator to communicate with people who don't know sign language
5.	Business Model (Revenue Model)	1. Revenue can be generated by having advertisements in free space of app UI by avoiding protruding ads as it serves as a frequently used essential app for the customers. 2. Premium subscriptions can be introduced for educated and working customers which have the facility of speech conversion from text on the web, documents, mails, articles, etc.

6.	Scalability of the Solution	<p>The scalability of the product can be increased by:</p> <ol style="list-style-type: none"> <li>1.We can integrate the app with calendars, to-do list, etc. and give reminders in sign language</li> <li>2. Gesture controller and voice controller can be added to control the device touchless</li> <li>3.An API/extension can be made which can be attached with online meet platforms that can detect sign languages through their video and convert it to captions for other people.</li> </ol>
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