

## Project Design Phase-I

### Proposed Solution Template

Date	30 September 2022
Project Name	Project - <b>Real-Time Communication System Powered by AI for Specially Abled</b>
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)	The project aims to develop a system that converts the sign language into a human hearing voice in the desired language as well as to convert speech into understandable sign language for the deaf and dumb. A convolution neural network is used to create a model that will be trained on different hand gestures. A web application to use the model will be built.
2.	Idea / Solution description	The idea is 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. We are making use of a convolution neural network to create a model that is trained on different hand gestures. An app is built which uses this model. This app enables deaf and dumb people to convey their information using signs which get converted to human-understandable language and speech is given as output.

3.	Novelty/ Uniqueness	<ul style="list-style-type: none"> <li>➤ Two-way communication.</li> <li>➤ An application with embedded features: <ul style="list-style-type: none"> <li>○ Translation into various languages.</li> <li>○ Suggestion mechanism based on the history of translations.</li> <li>○ In-built emergency options.</li> </ul> </li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>➤ Understanding specially-abled people in a better way.</li> <li>➤ Equal opportunities</li> <li>➤ Break the social barrier</li> </ul>
5.	Business Model (Revenue Model)	Not many models of this kind are available in the society, so educating people about the uses and technology of this model will surely create a huge market for this product. This can be done by means of mass communication and advertisements. Instead of promoting it in business point of view, promoting it in a service point of view will expand its reach.
6.	Scalability of the Solution	If a basic model of this solution is created, then expanding it, needs some minimal man power with sufficient knowledge regarding this. So, with the increase in its demand, we can scale its production comfortably.