

Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID16504
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)	To develop an interactive communication system for people with special needs that converts sign language to voice in real time.
2.	Idea / Solution description	<p>1.At first,we will pre-process the images which will be used for building the model. Image pre-processing includes zooming, shearing, flipping to increase the robustness of the model after it is built. The Keras package will be utilized for picture pre-processing.</p> <p>2.Then,we start building our model by initializing the model, adding Convolution layers, adding Pooling layers, Flatten layer and Full connection layers which include hidden layers.</p> <p>3 We compile the model with layers that we added to complete the neural network structure.</p> <p>4. We create an interactive and responsive User Interface.</p>
3.	Novelty / Uniqueness	<p>1. We intend to create a communication system that is robust and user friendly so that both normal and specially abled people can access it freely.</p> <p>2. The users can use this application to send and receive messages in real time.</p> <p>3.The model is trained by the latest available convolution neural network with maximum efficiency.</p>

4.	Social Impact / Customer Satisfaction	This allows specially abled people to interact freely and not be dependant on anybody. It also bridges the communication gap which allows specially abled people to integrate into normal society.
5.	Business Model (Revenue Model)	The system will be marketed as a web app with freemium features, starting with a free trial period for a specific period of time. Once this period ends, access to the service can be renewed for a marginal price.
6.	Scalability of the Solution	Initially launching the firm with venture capital, but later reinvesting profits obtained from subscription service.