

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

Date	17 OCTOBER 2022
Team ID	PNT2022TMID18994
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)	The communication and technologies associated with it is developing day by day. Especially, In the domain of Artificial Intelligence healthcare systems, communication between specially abled and normal persons is becoming popular day by day. Differently abled peoples require better forms of communication with the help of new technologies so that they can significantly improve their ability to get around and participate in daily activities. Since normal people are not trained, it is very difficult for them to understand their needs. Hence, normal people need special mechanisms to communicate with the differently abled and thus understand their needs and concerns and to have a proper communication medium.
2.	Idea / Solution description	The project aims to develop an CNN model 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>• Hand gestures Detection</li> <li>• Language customization</li> <li>• High accuracy.</li> <li>• User-friendly interface.</li> <li>• Understanding the sign moments</li> </ul>
4.	Social Impact / Customer Satisfaction	The proposed project has an social impact mainly on accessibility to information and communication in enabling people with disabilities to fully enjoy all human rights and fundamental freedoms is acknowledged by the convention on the rights of persons with disabilities (CRPD). Using this application we paved a way for the deaf person who can easily interact with normal person anywhere. It enables deaf and dumb people to convey their information using signs which get converted to human-understandable language and speech is given as output.

5.	Business Model (Revenue Model)	The financial benefits of this proposed project includes few methodology, such as , opportunity for risk sharing, extending the debt capacity, the release of free cash flow and maintaining a competitive advantage in a competitive market, this project provides an enhanced facility of making things more easier, effective and efficient.
6.	Scalability of the Solution	This proposed solution is highly extensible in terms of the features that is been offered by the system. It can be seen as a highly improvised and light weight model when compared to the existing systems. The system can further be scaled in such a way that enables tasks being assigned and completed in system through gestures.