

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

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|---------------|--|
| Date          | 19 September 2022  |
| Team ID       | PNT2022TMID20864   |
| 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 the proposed solution template.

| S.No. | Parameter                                | Description   |
|-------|--|---|
| 1.    | Problem Statement (Problem to be solved) | Differently abled like dumb and mute people can communicate only through the sign language, normal people those who do not know the sign language feels difficult to communicate with them  |
| 2.    | Idea / Solution description              | There are two methods available in the literature for removing the background to extract the foreground object. We have planned to employ these methods in the design of the proposed Sign Language Converter for identifying the hand region in the input image captured by the camera   |
| 3.    | Novelty / Uniqueness                     | We use a convolution neural network to build a model trained on different hand gestures. An application has been developed that uses this model. The app enables deaf and hard of hearing people to communicate their information using signs that are converted into human understandable language and given as speech output. |
| 4.    | Social Impact / Customer Satisfaction    | The main purpose of this application is to make deaf-mute people feel independent and more confident  |
| 5.    | Business Model (Revenue Model)           | The implemented end product will be marketed as a Retailer model, in which the product will be assigned an initial base price and will be updated once we bring new features to it.   |
| 6.    | Scalability of the Solution              | Thus this would bring a new evolution in Real Time Communication System Powered by AI for Specially Abled with less time and safe enough resources.   |

