

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

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|---------------|--|
| Date          | 16 September 2022  |
| Team ID       | PNT2022TMID09402   |
| Project Name  | Real-Time Communication System Powered by AI for Specially Abled |
| Maximum Marks | 2 Marks  |

**Proposed Solution Template:**

| S.No. | Parameter                                   | Description  |
|-------|---|--|
| 1.    | Problem Statement<br>(Problem to be solved) | To model a system for aiding deaf and dumb people and help them to communicate in real-time.   |
| 2.    | Idea / Solution description                 | <ol style="list-style-type: none"><li>1. The model uses a technique called Background-subtraction which is considered as a major pre-processing step.</li><li>2. There are two methods available in the literature for removing the background to extract the foreground object.</li><li>3. 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.</li></ol> |
| 3.    | Novelty / Uniqueness                        | <ol style="list-style-type: none"><li>1. We will be using the latest and trending wearable technology which makes it possible to carry the device (Mobile Application) easily anywhere and everywhere by the disabled person which makes the communication possible by both specially abled and normal people.</li><li>2. We will be using the most recent convolution neural network architecture to improve the efficiency of the trained model.</li></ol>                   |
| 4.    | Social Impact / Customer Satisfaction       | Helps to bridge the gaps in communication with hearing and speaking impaired people.   |

|    |                                   |   |
|----|-----------------------------------|---|
| 5. | Business Model<br>(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       | Bootstrapping the company at first through the founder's funds, but eventually through reinvesting the profit from servicing customers.   |