

**Project Design Phase-I**  
**Proposed solution**

**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                 | We start by collecting key points from mediapipe holistic and collect a bunch of data from keypoints<br>We then build a LSTM model and train with our stored data which helps us to detect action with a number of frames. Once training is done, we can use this model for real time hand gesture detection and simultaneously convert the gesture to speech using OpenCV.            |
| 3.    | Novelty / Uniqueness                        | We will be using the latest and trending wearable technology which makes it possible to access(Web Application) easily anywhere and everywhere by the disabled person which makes the communication possible by both specially abled and normal people.<br><br>We will be using the most recent convolution neural network architecture to improve the efficiency of the trained model |

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| 4. | Social Impact /<br>Customer<br>Satisfaction | Helps to bridge the gaps in communication with hearing and speaking impaired people.  |
| 5. | Business Model<br>(Revenue<br>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<br>Solution              | Bootstrapping the company at first through the founder's funds, but eventually through reinvesting the profit from servicing customers.   |