Proposed Solution

S.no	Parameter	Description
1.	Problem Statement	Generally deaf and dumb people use sign language to communicate with each other. But normal people don't understand sign language. In emergency situations, deaf and dumb people cannot able to convey their message to normal people. So, there is a barrier between these two communities.
2.	Idea / Solution description	We are going to design a real-time communication system using AI that is going to act as an interpreter between deaf-mute and normal people.
3.	Novelty / Uniqueness	The existing system recognizes gestures using flex sensors, and the Arduino is at the heart of the setup. The output will change as the flex sensor bends. Each sign will have a corresponding output in this system. Output will be displayed on the LCD as text. There are lot of disadvantages in this system. So, we propose a computer-vision system for sign language recognition. Our proposed system is not dependent on the use of gloves and microcontrollers like Arduino and Raspberry Pi. We are going to design a communication system by making use of Convolutional Neural Network. The hand gestures will be captured by the camera, and our pre-trained model will make predictions based on the input. Finally, the output will be delivered in the form of voice or text.
4.	Social Impact / Customer Satisfaction	By using this application deaf and dumb people can confidently communicate with normal people without any interruption. The barrier between deaf-mute and normal people will be disappeared.
5.	Business Model	We can build this project as a web application and fix a subscription cost. Subscription cost should be reasonable so that everyone can use this application. By this way, we can make revenue from this project.
6.	Scalability of the Solution	We can build this web application using python flask and newer AI technologies can be used to improve the functionality, features and performance of this application.