Project Design Phase-I
Proposed Solution Template

Date	22 September 2022
Team ID	PNT2022TMID22166
Project Name	Real Time Communication Using 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)	Everyone has hardships and challenges occasionally. However, barriers may occur more frequently and have a more significant effect for those who are disabled. Clear, succinct communication should satisfy the needs of all parties concerned. For instance, augmented communication approaches can make sure the process is transparent, inclusive, and two-way while also being sensitive to the needs of the person. Individuals with intellectual disabilities have different communication philosophies. Others employ non-verbal communication techniques including gestures, vocalisations, or even eye movements in addition to spoken or sign language. However, there may be difficulties with general communication between you and the individual with the intellectual disability as a health care provider. It is quite challenging for silent persons to communicate with non-mute people. Given that the average person is not trained in hand sign language. It might be quite challenging for them to communicate at times of crisis.
2.	Idea / Solution description	This initiative enables those who are deaf or dumb to use sign language to interact with the rest of the world. It also turns speech into understandable sign language for the deaf and dumb, converting sign language into a human hearing voice in the chosen language to communicate a message to ordinary people. Sign language interpreters are essential for communication among the deaf and dumb. Indian Sign Language gestures were recognised

		using a hand gesture recognition system for text production in a real-time sign language recognition system that was built and executed. Web cameras are used to capture the signs. Computer vision is an image processing system that obtains images from electronic cameras and is similar to human vision systems in which the brain processes images from the eye. To improve the pictorial information by enhancing the raw image from the camera.
		The technology that will be developed to assist speech impaired, deaf, and normal people in communicating is based on computer vision, specifically hand recognition using the CNN algorithm. A convolution neural network is being used to build a model that is trained on various hand motions. On the basis of this model, an app is created. With the help of this app, persons who are deaf or dumb can communicate using signs that are translated into speech and human-understandable words.
3.	Novelty / Uniqueness	This software is specifically created for anyone to comprehend sign language, enabling them to assist those who are incapacitated in an emergency. In order to help persons who are deaf or hard of hearing in an emergency, this software is specifically made for those who wish to comprehend sign language.
4.	Social Impact / Customer Satisfaction	Disability-related social marginalisation results in a lack of social integration in a particular setting. A person with a disability could have trouble connecting with family members, co-workers at work, and students. This can be as a result of his pushing these individuals away or because of social views and stereotypes surrounding disabilities. The result of exclusion is that a person with a disability may not have the social support they need or the social skills they need to deal with their impairment, such as communication.
		The Convention on the Rights of Persons with Disabilities recognises the significance of communication and information accessibility in enabling individuals with disabilities to fully enjoy all fundamental freedoms and human rights (CRPD). We created a path for the deaf person to effortlessly use this application. interact anyplace with everyday people. Using signs that are translated into speech and

		understandable language, it allows persons who are deaf or dumb to communicate. supplied as a result.
5.	Business Model (Revenue Model)	The financial advantages of this project include a few methodologies, such as the chance for risk sharing, reducing the debt capacity, releasing free cash flow, and maintaining a competitive advantage in a market that is competitive. This project also offers an improved facility for making things more simple, effective, and efficient.
6.	Scalability of the Solution	The functional needs and how they affect society are addressed by the scalability of a solution. The project's potential to grow depends on how well it can adapt to changes in application and system processing requirements in terms of cost and performance.