Project Design Phase-I

Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID44066
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 (Problem to be solved)	A Real time communication system needs some modifications before transferring different speech signals simultaneously on the same band/channel. The signals are sampled from analog audio signals with an introduction of quantization noise and sampling degradation.
2.	Idea / Solution description	More in recent times urbanized embedded applications are altering our standard of living in an elegant way. Sign language is a communicative and normal way for communication among common and the human being with the specially abled. The objective of the sign language translation system is to decode the usual sign language into speech and to create trouble-free contact with the dumb persons. The physical gesticulation statement comprises of hand gestures that suggest particular meaning, the non - physical is head movement, facial appearance, body orientation and position. The most important uniqueness of a person hand gesticulation can be reviewed by their energetic features. Hand gesture conversion to voice involves images of live hand gestures taken lively with which training datasets are developed and with this dataset the gestures are recognized. In the opposite process, the normal person voice has to be converted into gesture for the understanding of disabled persons. Speech recognition involves voice recognition and converting it into text and gesture images. It can improve a good relation and communication skill between the specially abled and the normal people.
3.	Novelty / Uniqueness	Optimizing and improving the virtual communication for the specially abled people.

4.	Social Impact / Customer Satisfaction	Improving innovations and communication skill. Comfortable and Useful to communicate during at emergency situations.
5.	Business Model (Revenue Model)	Lack access to employment opportunities and even if they are able to get employment, they face problems such as reasonable accommodation at work, accessible public transportation to get them to work and back and discrimination and ignorance about their potential at work.
6.	Scalability of the Solution	The persons with disabilities are more likely to experience adverse socio-economic outcomes such as less education poorer health outcomes, lower levels of employment, and higher poverty rates. Poverty may increase the risk of disability through malnutrition, inadequate access to education and health care. Disability may also increase the risk of poverty, through lack of employment and education opportunities, lower wages, and increased cost of living with the disability.