Project Design Phase I

Proposed Solution

Date	17 Oct 2022
Team ID	PNT2022TMID51928
Project Name	Real-Time Communication System powered by AI for Specially abled
Maximum Marks	4 marks

Problem statement(problem to be solved)	The problem is the inability of the deaf-mute person to communicate and interact with the normal person as they don't usually understand what signs they pose and what they mean.
Idea / Solution Description	The project aims to develop a system that converts the sign language into a human hearing voice in the desired language to convey a message to normal people, as well as convert speech into understandable sign language for the deaf and dumb. We are making use of a convolution neural network to create a model that is trained on different hand gestures. An app is built which uses this model. This app enables deaf and dumb people to convey their information using signs which get converted to human understandable language and speech is given as output.
Novelty / uniqueness	● The characteristic feature of the model is the ability of the model to be able to convert the sign to text as well as voice that could help both the deaf and the normal people to choose between the

	options .
	● It can detect the image in the real-time By drawing a bounding box and focusing on the sign to be detected and gives a clear picture of what is being recognized.This can aid in detecting multiple signs at a particular time .
Social Impact / Customer satisfaction	The application will serve as a sign to text and voice converter which will reduce the dependency of the customer searching for the sign or the translator. This can reduce the time and energy of the customer. The use- friendly interface makes it easier for any age person to access it with ease .
Business model (Revenue model)	The challenge the company is now facing is to develop a business plan and continue offering customers satisfactory service in order to maintain and boost the company's returns. Inorder to improve the model and production the company need to have a clear idea about the customers , their concerns , their expectations and their requirements and focus on developing the model to satisfy the requirements and subside the constraints.This will help in improving the profits and the usage of the model and improve the feedback for the model creating a good awareness about the application,resulting in a better revenue model .
Scalability	This is typically accepted in the Deaf community, but hearing people might not comprehend it. Directness in communication is regarded to be one aspect of the Deaf culture. Two more indications for communication are touch and physical proximity.