IDEATION PHASE

BRAINSTORM & IDEA PRIORITIZATION

DATE	20 October 2022
TEAM ID	PNT2022TMID22164
PROJECT NAME	Real - Time Communication System powered by AI for Specially Abled.
MAXIMUM MARKS	4 Marks

1.Problem Statement

2.BrainStorming

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Brainstorm

Write down any ideas that come to mind
that address your problem statement.

🕐 **10 minutes**

SWETHA G S

Special adaptive hardware and software translate Morse code into a form that computers understand so that standard software can be used. Speech input provides another option for individuals with disabilities.

Software is made to translate sign language to words.

Ava is an instant transcription app that uses AI to instantly transcribe the conversation of a group of people. Its algorithm adds punctuation, the name of the person who is talking and the necessary vocabulary from the user's dictionary.

Braille keyboard and Braille display device: These are keyboards with Braille lettering, that can be used by blind or visually impaired users.

SHALINI M Z

Augmentative and alternative communication devices help people with communication disorders to express themselves. It can range from a simple picture board to a computer program that synthesizes speech from text.

The glove sensors convey the degree of flexion in each finger of the hand. Additionally an accelerometer sensor was placed on top of the gloves to acquire the orientation of the hand.

Optical Character Recognition allows people with a vision impairment to scan printed text and receive a speech output

A face based communication system for disabled have also been developed

SUBASHRI M

Real-time captioning or translators for people with a hearing impairments using sign language.

Using sign language image processing is done and voice generates.

A system that provides detailed hand gestures that show the meaning at the bottom.

Speech recognition system allow user to control computers by speaking words and letters.

VIDHYA V

By using their manual-visual language they can use with these gadgets.

It is also done by gloves in which they are equipped with sensors

The visual language has been trained to the AI devices.

This is used as voice assistants, image recognition for sign language.

3.Group Idea

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

⏱ **20 minutes**

Category 1

AI-voice-assisted technologies, like Echo, Google Home, Alexa, have created new means of accessibility for disabled people to interact with others.	The glove sensors convey the degree of flexion in each finger of the hand. Additionally an accelerometer sensor was placed on top of the gloves to acquire the orientation of the hand.
FaceToFace PC Communicator is a software package installed on the user's PAC Mate and a Bluetooth enabled computer. The package allows the user to connect a PAC Mate to the computer using the included compact flash Bluetooth module.	This is used as voice assistants, image recognition for sign language.

Category 2

Hand gesture is one of the methods used in sign language for non-verbal communication. It is most commonly used by deaf & dumb people who have hearing or speech problems to communicate among themselves or with normal people.	It is also done by gloves in which they are equipped with sensors
Ava is an instant transcription app that uses AI to instantly transcribe the conversation of a group of people. Its algorithm adds punctuation, the name of the person who is talking and the necessary vocabulary from the user's dictionary.	Augmentative and alternative communication devices help people with communication disorders to express themselves. It can range from a simple picture board to a computer program that synthesizes speech from text.

Category 3

The visual language has been trained to the AI devices.	It will detect and comprehend their hand gestures , allowing it to recognize and interpret those signals into a voice
Optical Character Recognition allows people with a vision impairment to scan printed text and receive a speech output	Speech rrecognition system allow user to control computers by speaking words and letters.

Category 4

Special adaptive hardware and software translate Morse code into a form that computers understand so that standard software can be used. Speech input provides another option for individuals with disabilities.	A face based communication system for disabled have also been developed
Braille keyboard and Braille display device: These are keyboards with Braille lettering, that can be used by blind or visually impaired users.	By using their manual-visual language they can use with these gadgets.

4.Prioritize

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Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⏱ **20 minutes**

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Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

FaceToFace PC Communicator is a software package installed on the user's PAC Mate and a Bluetooth enabled computer. The package allows the user to connect a PAC Mate to the computer using the included compact flash Bluetooth module.

Optical Character Recognition allows people with a vision impairment to scan printed text and receive a speech output

It provides them the ability to hook them into their surroundings and develop the ways to interact with the world.

AI will detect and comprehend their hand gestures , allowing it to recognize and interpret those signals into a voice

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The visual language has been trained to the AI devices.

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Special adaptive hardware and software translate Morse code into a form that computers understand so that standard software can be used. Speech input provides another option for individuals with disabilities.

A face based communication system for disabled have also been developed

Using artificial intelligence disabled people can be more outspoken and share their ideologies among normal people.

Braille keyboard and Braille display device: These are keyboards with Braille lettering, that can be used by blind or visually impaired users.

Real-time captioning or translators for people with a hearing impairments using sign language.

This is used for low-vision and voice-recognition.

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Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)