PROJECT DESIGN PHASE-II

Technology Stack (Architecture & Stack)

Date	14 October 2022
Team ID	PNT2022TMID11418
Project Name	Real Time Communication System Powered by AI for Specially Abled
Maximum marks	Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2.

Example: Specially Abled person convey their message to others

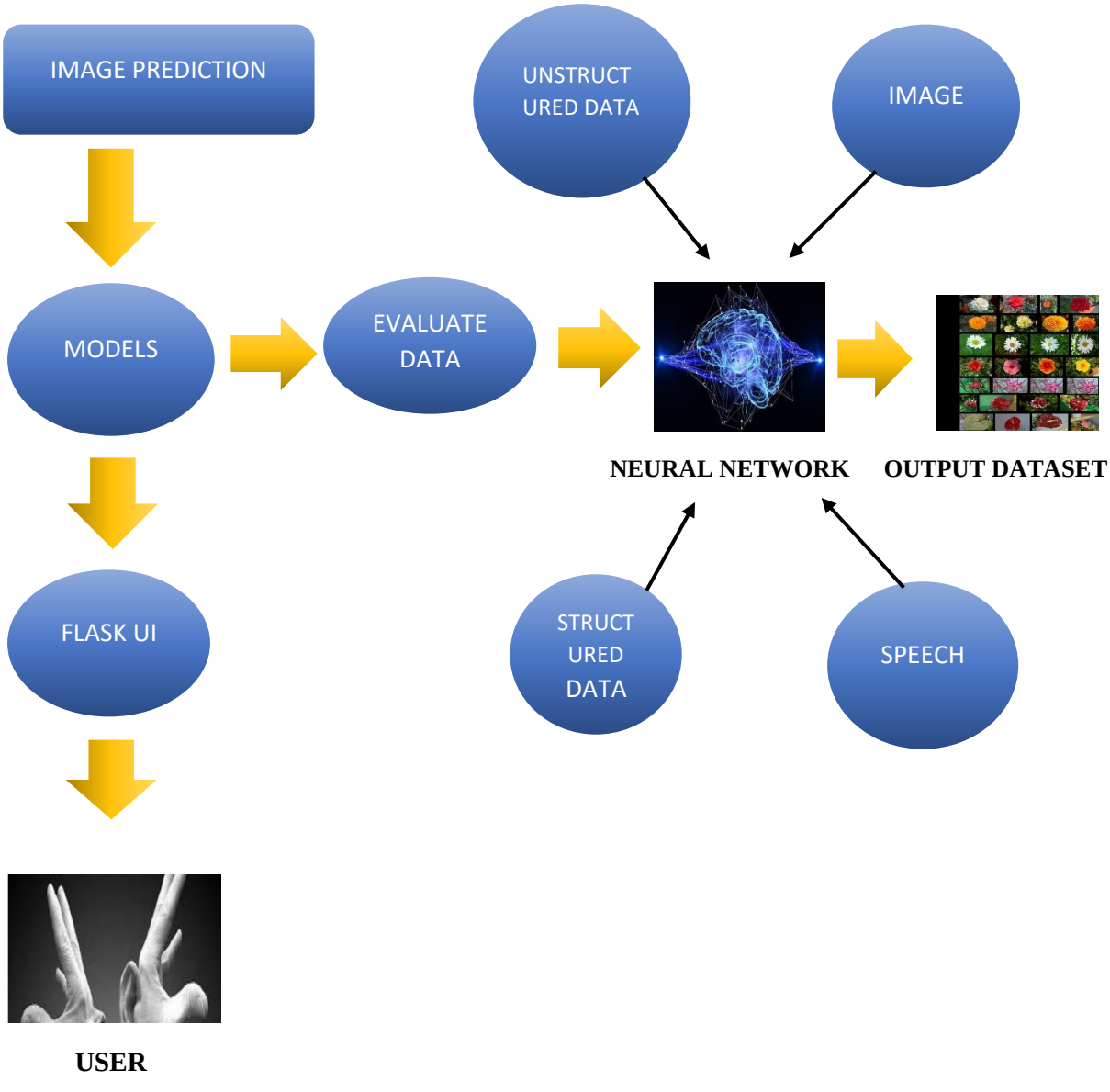

TABLE-1: COMPONENTS & TECHNOLOGIES

S.No	Component	Description	Technology
1.	User	Communication barriers of deaf or hearing impaired people with other communities, contributing significantly to their social inclusion	AI technology
2.	Flash UI	Flash's user interface components let you interact with the users that use your site and gather information.	Using the cloud it can be executed
3.	Models	Support Vector Machine (SVM) is subsequently applied to classify our gesture image dataset.	Machine Learning
4.	Image Prediction	Gesture can be completely observable and viewing a gesture from another perspective makes the prediction.	ANN, CNN
5.	Image	Image processing is used to make the image into signs by the neural network	ANN, CNN, Open CV
6.	Speech	Speech translates the voice into image and sensitive neural play.	AI and machine learning methods like deep learning and neural networks
7.	Evaluate date	Aims to estimate the generalization accuracy of a model on future (unseen/out-of-sample) data.	
8**.**	Unstructured data	P unstructured data is a conglomeration of many varied types of data that are stored in their native formats	Natural Language Processing (NLP)
9**.**	Structured data	Typically categorized as quantitative data — is highly organized and easily decipherable by machine learning algorithms	Machine language and artificial intelligence tools
10.	Neural network	The same convolutional neural network architecture was used for both, the top view and the bottom view models, the only difference is the number of output units	AI technology
11**.**	Dataset	First prototype of this system is was used a dataset of 24 static signs from the Panamanian Manual Alphabet.	AI technology

TABLE-2: Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Robots and other tools provide home-based care and other assistance, allowing people with disabilities to live independently	Artificial Intelligence like robots and software systems
2.	Security Implementations	Set the inclusion and exclusion criteria, Report the results in the survey	Artificial Intelligence
3.	Scalable Architecture	The improvement in the specially abled persons interaction with the environments	Artificial Intelligence
4.	Availability	Technology solutions that mimic humans and use logic from playing chess to solving equations and Machine learning is one of the technologies	Artificial Intelligence
5.	Performance	Enables people with disabilities to step into a world where their difficulties are understood and taken into account	Artificial Intelligence