INSTITUTION'S INNOVATION COUNCIL (Ministry of HRD Initiative) Ideathon 2.0

Team Name : ___Schrodinger's Cats_____

	Name	Branch and Semester	Contact Number	Email- ID
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Member 2				
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Note:

1. One can participate either as a part of a team or an individual basis. Switching teams is not allowed.
2. The uploaded ideas will be screened to go to the second round.
3. Judging : competition entries shall be judged, or winners selected based on the following criteria
   - Is the problem worth solving
   - How innovative or novel is the idea
   - Scientific accuracy
   - Social impact
   - Scalability
4. Decisions of IIC JSSSTU in respect of all matters to do with the competition will be final and no correspondence will be entertained.
5. In second round, the selected teams will have to present their idea in front of the jury panel.
6. Payment of INR 50 should be made to the UPI ID **anju.marina.lobo@oksbi** and submit the transaction ID above.
7. Idea should be submitted in **.pdf** format.

Abstract:

It's a way to establish an interface for communication such that specially abled (dead and dumb) can interact with the general public using the front camera of a phone , as the specially abled such as deaf and dumb have their own way of communication using standardised sign language , we make use of the front camera to create an interface similar to that of a normal video call where they can communicate through signs and those signs are recognised and converted to voice.In this way we can give a voice for them to communicate to the general public without having the other party having no prior knowledge of sign language using Machine learning

Introduction

It's safe to say that most of the people in India carry a smartphone with camera , According to the recent cencus 18 million people in India suffer from speech and hearing impairment which roughly estimates to 1-2% of India's current population . These people are taught to communicate using standardised sign language , the idea is to train a machine learning model by inputing images of the signs made and have them recognize using the front camera and convert it to text and then voice, In this way they can talk to us over phonecalls not only with their family but with the rest of the world.

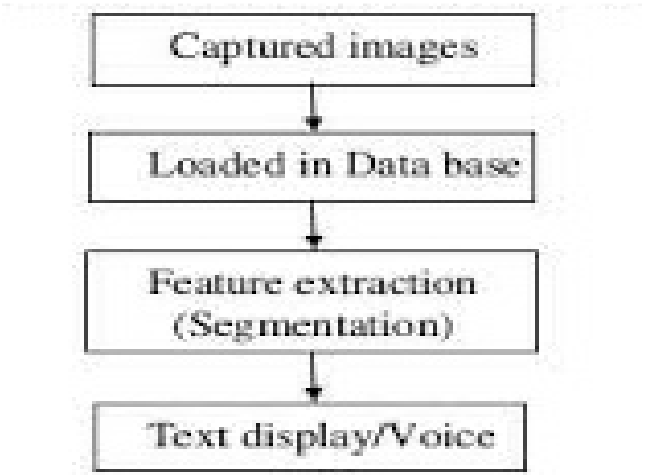
Motivation

The motivation would be the specially abled students from our very own college, where we have observed them in the cafeteria and their ways of communication.

Methodology

Deaf/Dumb ----->make normal phone call ------> Interface to communicate like video call ------> making use of the front camera--------->signs are recognised using the trained ML data base model---------->signs are converted to voice----------> the other person hears it like how one has a casual conversation over phone

This can be implemented by making an app ,similar to the true caller app which intercepts the incoming call or outgoing call and provides an interface to communicate with the other party



Social Impact

The specially abled could talk with others through normal phone call, where the interface acts as a voice to their thoughts which they want to express effectively. They could make emergency phonecalls in dire time of need to people and convey the message they intend to deliver

Market Survey