# PROBLEM STATEMENT

**TITLE** : Real Time Communication System
 Powered by AI for Specially Abled

**DOMAIN** : Artificial Intelligence

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## Problem :

Communication is the medium by which we can share our thoughts or convey the messages with other person. Nowadays we can give commands using voice recognition. But what if one absolutely cannot hear anything and eventually cannot speak .In recent years, there has been rapid increase in the number of deaf and dumb victims.Since deaf and dumb people cannot communicate with normal person so they have to depend on some sort of visual communication. Gesture shows an expressive movement of body parts such as physical movements of head, face, arms, hand or body which convey some message. Gesture recognition is the mathematical interpretation of a human motion by a computing device. Sign language provide best communication platform for the hearing impaired and dumb person to communicate with normal person.

## Problem Statement 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.

## What is the issue?

The lack of proper communication facilities to convey a wide variety of messages between a specially abled and a normal person who doesn't know sign language.

## When does the issue occur?

➢ When there is a need to convey an urgent message.
➢ When encountering new people and places.

## Why is it important that we fix the problem?

According to a number of study reports, it has been witnessed that the numbers of depressed specially abled persons are quite increasing due to the difficulties they face during their communication with normal people. With the advent of current technological facilities, it is possible to stop the continuation of this trend.