University Institute of Engineering, Chandigarh University
Department of Computer Science & Engineering
Phase I (Project Scope, Planning and Task Definition)

Date: 09 March 2022

Project Title

Sign Language Recognition with Machine Learning

Project Team

Team Designation	Name	UID	Section
Member 1	SAHIL KUMAR	20BCS9238	ONBCS802-B
Member 2	SHRUTI SHREYA	20BCS9229	ONBCS802-B

Project Scope

Sign Language is one of the ways to communicate with deaf people. In this work set, included features and variation in the language with locality have been the major barriers which have led to little research be in be done ISL. One should learn sign language to interact with them. Learning usually takes place in peer groups. There are very few study materials available for sign learning. Because of this process of learning sign language learning is a very difficult task The initial stage of design learning has Finger spelled assigned learning and raised when no corresponding sign exists or the signer is not aware of it. Most of the existing tools for sign language learning use external sensors which are costly. Our project aims at extending a step forward in this field by collecting a dataset and then using various feature extraction techniques to extract useful information which is then input into various supervised learning techniques. Currently, we have reported four-fold cross-validated results for the different approaches, and the difference from the previous work done can be attributed to the fact that in our four-fold cross-validation, the validation set Correspond to images of a person different from the persons in the training set.

Project Planning and Task Definition

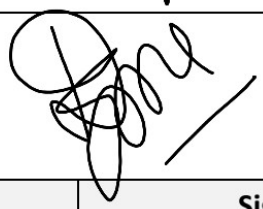
In this Sign Language recognition project, we create a sign detector, which detects numbers from 1 to 10. We can easily extend this project and add alphabets too.

In this, the Model can be trained to recognize different gestures of sign language and translate them into English. This will help many people communicate and converse with deaf and dumb people.

This project can be done with the help of 3 steps: -
1. Creating the dataset.
2. Training a CNN on the captured dataset.
3. Predicting the data.

This project is all about the interaction between deaf & dumb people with normal people for making communication easy, better, and efficient.

Project ID (If selected from project basket)					**36**						
Project Outcome (Tick the Column)	**Patent**		**Journal Paper**		**S/W Project**	✓	**H/W + S/W Project**		**Other**		
Remark of Supervisor											

Name of Supervisor	**Er. Parwinder Kaur**	**Signature**	
Name of Co-Supervisor	**Dr. Dheresh Soni**	**Signature**	

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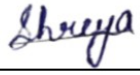
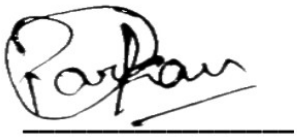
2.	SHRUTI SHREYA	+91 9315099582	



Signature

(Project Teacher)