Our project was titled as sign language recognition, we decided to build a real time sign language recognition system and implimented to recognize 26 gestures from Indian sign language and convert those gestures into letter or words,

The sign are captured by using web cam these signs are then preprossed for extracting features then ~~these extracted features are compared in order to calculate sign recognition~~, the features are compared with testing database, finally recognised gesture is converted into text.

first step towards building this project was to get our hands on a suitable dataset, in order to find dataset we scraped the internet but our attempt was unsuccesful. then we dicde to build our own dataset we have captured images of signs for english alphabets which have total 26 class lables assigned to them.

The captured images are then segmented for Area of intrest, means we manually segmented the region which consist of hand sign. This segmentet dataset is the split into test and train sets in the ratio of 80 - 20.

using this prepossed dataset model is trained which took approximatly ~~20~~ 12 hours, after executing prediction file the model which was successfully trained generate the predected label for input data. The recoqnised gestures are then converted to corresponding letter.

The goal of this project was to reduce the ~~bar~~ communication barrier between physically impaired deaf & dumb people.

~~We used pyth~~

We choose python to code with and jupyter to code on for this project ~~and~~ also we use technologies such as tensorflow and open cv.

We were group of 4 people contributing to built this project it took bout 3 months to complete this project during this period of time many challenges appear in front of us one of ~~those were~~ the challenge was at initial stage when we were building dataset we ~~dec~~ took photos of gestures of hand of single person so our model was only recoqnising his/her hand so ~~a~~ then we have to rebuild our dataset consist

of photos of hand of all the member.

~~In future we can incr~~

As of now our project only convert sign hand gestures to text but in future we can increase our scope and we can further convert the text into speach.

There were some drawbage or limitations, due to brightness and contrast sometimes webcam can hardly detect the expected skin color. ~~their~~ because of change in tracking environment background unexpected pixels gets in the way which make recoquition difficult. and ~~their~~ exist couple of pairs of letters which almost look similar like (m,n) (A.E) (ST)

This was our project which converts hand gesture to text to make communication easier ~~for~~ ~~dea~~ with deaf and dumb people. Thankyou.