**Review on paper:** Bengali Hand Sign Gesture Recognition using Convolutional Neural Network - 2019

**Abstract**

This paper discusses on the current state of living, communication options and research on disabled people. It states that for such people, everyday living and communication is difficult and adds that, that is more so for Bengali disabled people. It state the use of their own dataset consisting signs of 10 numerals and 35 characters.

**Introduction**

There have been a new movement for developing technologies for deaf and mute people, as this paper surmise. In our current modern and connected world, communication is key. And sign language is one such path for such keys. There have been popular use and adoption of numerous American, British and even French Sign Languages. But there haven’t been that many Bangla Sign Language Dataset. The researchers wanted to develop a new dataset and create a highly accurate CNN model on it.

**Literature Review**

The researchers set out to make a dataset and a CNN model made on top of that dataset. They managed to create such dataset and model as intended.

**Methods**

They first created a dataset of 30916 samples, of which 23864 are the basic 35 characters and 7052 are the 10 numerals. They created a custom deep CNN network. They trained their model for numerals and characters separately, evaluating the dataset by mixing them and assessing in a 10 - Fold Cross Validation.

**Results**

In their tests, they observed 100% testing accuracy on numerals, 99.83% testing accuracy for the recognition of the characters of Bangla sign language alphabet. We obtained 99.80% accuracy, when both characters and numerals are mixed.

**Discussion**

They created a new Bangla Hand Sign Language and developed a custom model on it. We are creating our own dataset and developing our own custom model on it as well. However, we aim to also compare the convenience and easy comprehension of ASL to Bangla translated and our Dataset to Bangla.

**Conclusion**

In conclusion, there are only a handful of datasets available of sign languages in Bangla. And there never have been any work on comparing between the readability and ease of understanding for translated sign language to a different oral language. This can help a lot more people to connect and communicate.

**Reference**

URL: https://www.researchgate.net/publication/337538346\_Recognition\_Bangla\_Sign\_Language\_using\_Convolutional\_Neural\_Network/citations