

**Paper Title:**

Hand gestures for emergency situations: A video dataset based on words from Indian sign language

**Paper Link:**

<https://www.sciencedirect.com/science/article/pii/S2352340920309100>

**1 Summary****1.1 Motivation**

This paper helps hearing and speech impaired, women by recognizing Indian sign language in any kind of emergency situation.

**1.2 Contribution**

Here, support vector machine based classification and deep learning based classification worked successfully to classify sign languages.

**1.3 Methodology**

The ISL gestures in the cropped dataset have been analysed by classifying them with the conventional feature driven approach using multiclass support vector machine (SVM) as well as the recently evolved data driven approach using deep learning model.

**1.4 Conclusion**

Multiclass SVM is utilised in this work and obtained an average classification accuracy of 90%. The performance of the classification model is evaluated with the test videos and achieved an average classification accuracy of 96.25 %.

**2 Limitations****2.1 First Limitation**

Different skin colours of individuals can fluctuate the model's accuracy.

**2.2 Second Limitation**

Different light effects of the images may cause difficulties.

**3 Synthesis**

As it was implemented in ISL, any other sign language may not provide accurate results like it.

