# A Survey on Sign Language Interpretation using Machine Learning

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**Abstract**: *Every day we see many people with disabilities like the deaf, the dumb and the blind, etc. Sign language is one of the communication tools for the hard-of-hearing people community and common people community. But normal people find it hard to understand the sign language and gestures of the deaf and dumb. Many tools can be used to translate the sign language created by the disabled into a form that normal people can understand. The studies are based on various image acquisition, pre-processing, hand gesture segmentation, extraction of features, and classification methods. This paper aims to research and examine the methods employed within the SLR systems, and the classification methods used, and to propose the most promising technique for future research. Due to the latest advancement in classification methods, a few of the currently proposed works specifically contribute to classification methods, together with hybrid techniques and deep learning. This paper specializes in the classification strategies utilized in earlier Sign Language Recognition. Based on our review, HMM-based techniques were explored significantly in previous studies, which include modifications. Deep learning consisting of convolutional neural networks has become popular over the past five years.*

**Keywords:** SLR, Sign Language, Recognition, Computer Vision, Neural Networks, Deep Learning, HMM, CNN.

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