**Chapter 8**

**Conclusion and Future work**

**8.1 Conclusion**

**8.2 Future Work**

Sign gesture recognition still has a long way to go in the research path, especially for 2D systems. This study offers fascinating ideas for future research. Some of these possibilities are defined in this section.

**Dynamic Sign Gesture Recognition**

As this thesis focused only on static sign gesture recognition, one next step forward is to recognize the dynamic sign gesture for the ASL.

**Sign Gesture Recognition from video:**

Now a day’s videos are generally found on the internet. The idea of categorizing single frames is a start to classifying frames in videos. This can be applied in real time classifications. Extending the algorithms proposed in this thesis to video and building an automatic transcript system is an important step onward. For this purpose, it might be fascinating to explore sequential models that study the time dimension, such as recurrent neural networks and or a neural architecture combining CNNs and RNNs.

**Apply to 3 Dimension** **technique**

Now days 3Dimension cameras and sensors are very easy to available in market and less expensive. This different type of sensor can provide much more information about the hand, making it possible to create more accurate systems for sign language real time recognition.

**Add more gesture in dataset:**

Even though that study introduces a self generated new dataset with a rather more gesture for American Sign Language, it still does not offer all the possible movements for American Sign Language. Videos with rotation in 3Dimension, words and expressions are examples of how this dataset can be extended.