CHAPTER 6
CONCLUSION

Based on the results of research on OCR (optical character recognition) with LSTM, it can be concluded:

1. The way LSTM works on OCR is in an effective way because LSTM is able to recognize such a character pixel very well by always making memory cells during the training process. LSTM is designed to recognize by using the cell memory method which is very helpful in the recognition of incoming data. The incoming data will be processed as a reference for future data. In addition, the cell memory method is also very good in determining the value to be stored because it uses a Forgate gate, Input and Output gate

2.Text extraction can be done when the deep learing model can recognize the characters contained in the incoming image. The model will use the train provision to recognize character pixels in the incoming image. Furthermore, the model will make a prediction character for the letter or word in the image and the extraction process can be carried out using the defined letter character invocation after that the deep learing model will compare the incoming image character with the letters that have been defined or by creating a vocabulary like vocabulary using the format txt which will be matched by the deep learing model.

3.To detect OCR language requires a lot of data train that contains foreign languages for the algorithm to recognize the characters of writing and sentence arrangement in each of these languages. Like the English language which has costal words for several things in terms of past, present, and future

4.Improvements to OCR can be done in several ways. One of them is to use a pre-traind model that has been previously trained and will be re-trained with the algorithm that will be used, and use as many datasets as possible to train. And

improve image processing like adding a filter to the image pre-processing process when entered.

5. Convolutional Layer in the text recognition process is needed because the process of creating a feature map that is generated by the Convolutional Layer helps the maxpooling process to search for characters in image text based on pixel position and pixel value.

Based on the conclusions described above, the following are suggestions given by future research:

1.For suggestions for further research, it can be done using the pre-traind model so that the accuracy of the OCR can be higher

2. Using a larger number of data sets and using more image processing methods such as object detection and area recognition of the image.

3. Trying to detect writing with a unique position and font for further research