

CHAPTER 6

CONCLUSION

The implementation of CNN to classification banana ripeness is carried out in two main stages, namely feature learning which consists of 2 stages of convolution and 2 stages of pooling. Then, continue with resistance classification where the best architecture is obtained by compare multiple optimizers. Obtained the comparison of the accuracy of the 3 types of optimizer is 93,75% for SGD optimizer, 92,5% for RMSprop, and 90% for Adam optimizer. All these tests were run with 75 epoch. In previous testing with no added brightness adjustmen using Adam optimizer get the result of 88% accuracy. From the result after adding the brightness adjustment can be concluded that the addition the brightness adjustment is very important because it can boost the prediction accuracy.

Next research if you want to try classification of ripeness of fruit make sure that the image quality for the data set is at good quality and collect as many data set as possible. Using the latest image classification methods with high accuracy much better.

