## ABSTRACT

The cow is a livestock member of the Ungulates as well as Buffalo, bison, anoa, and bull. The cow kept dominant for utilized milk and flesh and by-products such as offal, skin, horns, as well as litter. Beef cattle business in Indonesia is growing very rapidly because the multiplicity of uses that are generated by the beef cattle. One of the criteria for business success is beef cattle beef cattle carcass weights with a healthy cow is great. Beef carcass weightsweighing currently still done traditionally. This proved very ineffective aside from the number of scales that are inadequate.

To estimate weight of carcass beef cattle, image processing can be applied to design a system which is able to overcome these problems. The concept of image processing is done in several stages. The first stage is the process of image segmentation to separate the image of the cattle from the background and removes the objects that are pegganggu. The second stage is the stage of identification to get the size of the post body and chest circumference of cattle, and the third stage is to do the process of computation to calculate the weight of carcass beef cattle.

Research final project created a system of Android applications to know theweight of a cow carcass using image processing methods. The method used in image segmentation process is Growing, with the classification method using the K-Nearest Neighbor. This final project research results is obtaineda value of 89,75% accuracy. Expected also with the capabilities of this system can help the traders of meat, so that it can be used as a standard of accuracy accurately in knowing the weight of the beef carcass.

Keywords: Android, Beef Cattle Carcas, Image Processing, K-Nearest Neighbor, Region Growing, Segmentation.