ABSTRACT

Beef is the source of protein that the Indonesian people is most fond of after poultry meat. Increasing the productivity of beef cattle can be done by proper care and breeding. The weight of beef cattle can be obtained by measuring the width of the chest and the length of the body, and they both have a linier connection. Weighing using a mechanical scale still provides obstacles during the weighing process. For a more practical way, the Informatics and Computation field is implicated to help provide an alternative solution by using image processing to find out the physical size (width of chest and length of body) of a certain beef cattle.

This image processing research is combined with the farming field and has discovered a connection between physical sizes of a beef cattle that is observed with its weight. The image processing can be done by image segmentation to separate the image of the beef cattle from its background and to erase other objects from the image that can be seen as noise. The process of identification is done afterwards to obtain the length of the body and the width of the chest of the beef cattle. After the measurements are obtained, a computation process is done to count the weight of beef cattle. For comparison, manual measurements are done with a measurement tape.

On this final assignment created a system that can determine the beef carcass utilizing digital processing. Mean Shift is one pf method who can help us to segment the beef cattle. For the classification process we are going to use SVM Linear. The result of this final project has accuracy rate 89 percent. It is expected also to the ability of this system, can help the butcher that can be used as a proper standard of accuracy to know the beef carcass.

Keywords: Segmentation, Mean Shift, SVM Linear.