

ABSTRACT

Cattle is one of the livestock that is used by many human to fulfill human life needs. Cattle as a source of animal protein much maintained especially for meat and milk taken for food. In some places, cattle are also used its energy to complete human work, such as pulling carts and farming.

One of the most important things in cattle is to know the accuracy rate of cattle weight. Currently, measuring the weight of cattle using a scale is considered as uneffective, considered the using of a scales are least maximum. What can be done to overcome it, is by utilizing existing technology, such as digital image processing techniques for calculating the cattle weight estimation.

In this Final Project uses the concept of digital image processing done in several steps. This system is made using MATLAB application with digital image processing process to know the cattle weight estimation. The method used is Geometric Active Contour with classification using Decision Tree method. All the cattle data are classified into 2 classes, namely large and medium class cattle. The results of this research can help the cattle farmers to get the accurate accuracy and better in the calculation of cattle weight with an accuracy of 85,714%

Keywords : *Cattle weight, digital image processing, Geometric Active Contour, Decision Tree.*