ABSTRACT

Coffee has become a necessity for humans, not only from the elderly, coffee is now in demand by many young people. The more coffee connoisseurs, the higher the coffee production. In harvest management, generally still tend to be traditional and only through visual observation. This will certainly affect the quality level of coffee bean production and it is difficult to maintain the consistency of quality coffee.

Based on these problems, we need a system that is used to detect the quality of coffee beans with input in the form of digital images. The coffee beans used are the types of Mount Manglayang and Mount Halu coffee with sampling every 100 grams using a 12 MP resolution cellphone camera. The system design is processed using google collaboratory. As for the system program using the python programming language with image processing using the Content Based Image Retrieval (CBIR) method and Decision Tree classification.

In this study, the results of the system performance with the highest level of accuracy 86% with a computation time of 27.01 seconds.

Keywords: Coffee Beans, Image Processing, Gabor Filter, Content Based Image Retrieval, Decision Tree.