

## **ABSTRACT**

The increasing demand and power of coffee consumption in the community are accompanied by an increase in the value of quality, because this will have an impact on the selling value and quality of the production value traded domestically and internationally. The government through the National Standardization Committee (DSN) has issued the Indonesian National Standard for the physical quality of coffee beans (SNI 01-2907-1999). In the quality determination stage, it is done visually.

In the process of working on this final project, a simulation and analysis were made to determine the quality of coffee beans with input in the form of digital images. The coffee beans used were Gunung Manglayang and Gunung Halu coffee which was obtained from coffee bean distributors in the city of Bandung. Method The steps in the process are taking samples of Mount Manglayang coffee beans and Gunung Halu coffee beans with a grammage of 100 grams and then taking the image with a camera cellphone 1 with a resolution of 12 MP and a camera cellphone 2 with a resolution of 8 MP with a different brand. The image is processed with simulator software using the Adaptive Region Growing (ARG) method and the Decision Tree classification.

From the test results, the level of accuracy obtained using the Adaptive Region Growing method is 90% and the Decision Tree classification reaches a value of 85%.

**Keywords:** Coffee Beans, Image Processing, Adaptive Region Growing, Decision Tree.