

## **Abstract**

**Soybean seeds are one of the beans that can be processed into tofu and tempeh. Before processing, it must first learn how the quality of soybeans is good or bad. To find out the quality of soybean seeds the classification process is needed. However, the current classification process is done manually through visual observations that require a long time and results in low accuracy. In this research, a soybean seed quality system was built using a Support Vector Machine. Dataset collected 100 data consisting of color and shape extraction consisted of two classes, particularly good and bad quality soybean seeds. After that, do a preprocessing on the train data using a standard scaler. Then, do the test using a 5-fold cross-validation model and obtained accuracy and f1-score from the Support Vector Machine method is 96%. Therefore, the research results of the Support Vector Machine method have good performance in classification soybean seeds.**

**Keywords: soybean seeds, classification, support vector machine, 5-fold cross-validation.**