

ABSTRACK

Morinda Citrifolia is one of the export commodities in Indonesia and has a variety of benefits. The quality of the *Morinda Citrifolia* is influenced by its maturity and its maturity parameters of weight, color, aroma and texture. Until now the *Morinda Citrifolia* classification method still relies on the senses, while the current industrial needs require a classification process with a high level of accuracy and a fast process. In this study, a *Morinda Citrifolia* detection device was designed based on the RGB value of the skin color of the *Morinda Citrifolia* using the TCS3200 color sensor with the Support Vector Machine method. The system uses Arduino nano as the main controller and the Support Vector Machine Algorithm as a decision maker for *Morinda Citrifolia* maturity. From the results of tests carried out using the Support Vector Machine method with a total of 850 samples of data training from 66 *Morinda Citrifolia* and test data of 100 samples from 25 *Morinda Citrifolia*, an accuracy of 92% was obtained.

Keyword: Detection, Classification, Support Vector Machine, Morinda Citrifolia