PROJECT REPORT

CLASSIFICATION OF GUAVA FRUIT RIPENESS USING THE HSV AND LVQ ALGORITHMS

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PREFACE

The purpose of writing this thesis is to fulfill several requirements in obtaining a bachelor's degree in education for students of the Informatics Engineering study program, Soegijapranata Catholic University, Semarang. The author realizes that this thesis is far from perfect, therefore the author expects constructive criticism and suggestions from all parties for the perfection of this thesis.

The end of the writing of this thesis cannot be separated from the help of various parties, so that the author on this occasion with all humility and respectfully expresses his deepest gratitude to all parties who have been involved and provide moral and material assistance, both directly and indirectly to all parties. party. author In the preparation of this thesis to completion, especially those I respect:

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Finally, all the work on this project is complete. Hopefully all criticism and suggestions from all parties can complement this project, thank you

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ABSTRACT

All the fruits in this world must have ripened different levels from color to texture. These differences make determining the ripeness level of guava fruit rather difficult, so this research was conducted so that the classification of the level of ripe guava could be identified.

first the system will take the image of the guava fruit that has been obtained and then enter the cropping stage to get the center point of the image. After that, extract the rgb value and hsv conversion so that classification using the LVQ algorithm can be run. in the classification phase is to find the smallest value which will later be included in the ripe or raw class.

The result of this project is that guava fruit images can be grouped based on fruit classification. This accuracy value can be higher if the training data used is more useful so that the program is able to determine exactly as the image is real and correct.

Keyword; image processing, classification, guava, HSV, LVQ,

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