

UNIVERSITI TEKNOLOGI MARA

**CAMPAUH: IMAGE RECOGNITION FOR MANGO
TYPE DETECTION**

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DECEMBER 2019

DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

.....*Shahmil*.....

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ABSTRACT

Nowadays, computer vision technology has emerged as a "big challenge" in terms of long-term goals, in which tens of thousands of categories can be identified in a range of circumstances similar to the human level. Convolutional neural networks are popular today because of their specialty in the recognition of the image. It also can be thought of as an automatic feature extractor from the image. Therefore, this project is developed to recognize the mango type based on its texture. In this project, the framework that is used is TensorFlow and Keras and it is written using Python language. This project will use Mobile Net architecture model because it consumes less computational power and it also can provide efficiency of the accuracy. Campauh was developed to recognize four classes of mango which are harumanis, apple mango, other mango and not mango. Other mango class means the other mango than harumanis and apple mango. Campauh was integrated with the web-based where when the users recognize the mango the result will be stored into the database and it will appear on the website. Campauh website also provides two types of graph which is a line graph and pie chart. This graph function is to allow the users to perform an immediate analysis and easily understand the information. Evaluation of Campauh consists of three-part which are functionality testing, usability testing, and confusion matrix. Most of them are satisfied and giving good feedback on the performance and the accuracy of the system.

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