

**UNIVERSITI TEKNOLOGI MARA**

**FACE SHAPE RECOGNITION FOR HAIRSTYLE  
RECOMMENDATION USING MATLAB**

**MUHAMMAD AZIZI BIN NORDIN**

**BACHELOR OF COMPUTER SCIENCE (Hons.)**

July 2015

**UNIVERSITI TEKNOLOGI MARA**

**Face Shape Recognition for Hairstyle Recommendation using  
Matlab**

**Muhammad Azizi Bin Nordin**

**Bachelor of Science (Computer Science)**

**Thesis submitted in fulfilment of the requirement for  
Bachelor of computer science (Hons)**

July 2015

# **SUPERVISOR'S APPROVAL**

## **FACE SHAPE RECOGNITION FOR HAIRSTYLE RECOMMENDATION USING MATLAB**

By

**MUHAMMAD AZIZI BIN NORDIN**

**2012828096**

This report was prepared under the supervision of the project supervisor, Miss Hajar Izzati Binti Mohd Ghazalli. It was submitted to the Faculty of Computer and Mathematical Science and was accepted in partial fulfilment of the degree of Bachelor of Computer Science (Hons)

Approved by

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Miss Hajar Izzati Binti Mohd Ghazalli

Project Supervisor

JULY 30, 2015

## **STUDENT'S DECLARATION**

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

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MUHAMMAD AZIZI BIN NORDIN

2012828096

JULY 30, 2015

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## **ABSTRACT**

Nowadays, hairstyle is one of the fashions that can bring the image of the face and whole attire. One of way to choose a suitable hairstyle is by considering the shape of the face. If the hairstyle been form perfectly but does not suitable with the face shape still could make a terrible image. Based on observation, 61 percent of people did not know their own face shape. This project is built to help the user to find the face shape by applying modern technology which is image processing. This project also provides suggestion of suitable hairstyle base on the face shape. The technique will be used is Canny edge detection and the platform will be MATLAB. The technique is chosen because of its accuracy in detecting the edge of image than using other techniques which are Sobel, Prewitt and Robert. Development method that suitable for this research project which has six phases is agile method because of its flexibility in developing a project. The focus in this technique is the Edge detection which needed to find the image information to determine the shape of the face. As a conclusion, this research would give some benefits in image processing area. Other researchers can make some enhancement in the future in order to improve this research. The system can be improved by better input and output of the project and also develop for mobile application for the future work.

**Keywords:** Face Shape, Hairstyle, Canny edge detection, MATLAB.