CAD FEATURE RECOGNITION BY FEATURE BASED METHOD

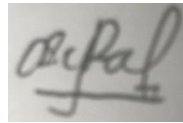## MUHAMAD ASYRAF BIN AHMAD DAUD

(2016666038)

BACHELOR ENGINEERING (HONS) (MECHANICAL)

UNIVERSITI TEKNOLOGI MARA (UiTM)

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"I declared that this thesis is the result of my own work accept the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree."

Signed :

Date : 28/7/2020

Muhamad Asyraf bin Ahmad Daud

UiTM No: 2016666038

"I declared that I have read this thesis and in our point of view this thesis is qualified in term of scope and quality for the purpose of awarding the Bachelor of Mechanical Engineering (Manufacturing) (Hons.)

Signed:

Dated : 28/7/2020

Supervisor

Dr. Ahmad Faiz bin Zubair

Faculty of Mechanical Engineering

Universiti Teknologi MARA (UiTM)

13500 Permatang Pauh

Pulau Pinang

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ABSTRACT

In the era of industry 4.0, there are many ways to improving the manufacturing process, and one of the processes in improving the computer-aided process planning (CAPP) to produce a certain product. The CAPP is the medium that connects the computer-aided design and computer-aided manufacturing to improve the manufacturing feature which can improve the production and the satisfaction of the seller and the customers. The automation recognition feature process is still been research because the process is still in continuous research as the automation recognition feature is new in the manufacturing industry and it can be improvised. This thesis is focusing on to extract the regular form feature of the bottle part model as the part model will be analyzed using the new open-source that was CAD processor of OPEN CASCADE 7.4.0-vc14-64 software by using the volume decomposition method as the bottle will be formed from the volume decomposition of the block.. Volume decomposition is a process that removes the stock material to actual shape without disturbing the original dimension. The bottle model has successfully been formed at the CAD software as well as the block annotation that was top and bottom of the bottle that represents the block on how it will decompose.