FINAL YEAR PROJECT REPORT
ADVANCED DIPLOMA IN MECHANICAL ENGINEERING
SCHOOL OF ENGINEERING
MARA INSTITUTE OF TECHNOLOGY
SHAH ALAM

CAM DESIGN : ANALYSIS OF KINETIC AND KINEMATICS OF CAMS PROFILE

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NOVEMBER 1994

ACKNOWLEDGEMENTS

In the name of Allah, The Most Beneficent and Merciful. Salam to Nabi Muhammad s.a.w, his companions, his friends and people who follow his path.

We wish to express our gratitude to our supervisor, En. Ahmad Azlan B. Mat Isa for his continuos support and valuable advice for this project. Heartfelt thanks also to Ir. Abdul Rahman Omar and all staff at CADEM centre for their highly guidance to complete this final project.

We also would like to express our appreciation to all those who are involved, directly and indirectly in the completion of this project.

Finally, we are grateful to our parents and our colleagues for their support and understanding during the preparation of this project.

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ABSTRACT

Cams are used widely in variety of machine, such as packaging machines, can-making machinery, engines, mechanical and electronics computers, wire-forming machines and computers mechanics. One important reason why cam are preferred over other types element is that the use of cams makes it possible to obtain an unlimited variety of motion and when certain basic requirements are followed, cams perform satisfactory year after year.

For this project, we are analysed the kinetic and kinematics aspects of cams profile. The definition of kinetic is an element of physics that deals with the effects of forces that cause motion in mechanisms. The kinematics is the study of mechanisms without references to the forces that cause the movement.

The most important thing in cams design, is the analysis of cam motion, analysis for combination of cam motion, to determine the cam profile - analytical method, determines pressure angle and reaction of cam when certain value of forces to apply in certain area of surface cam.

In cam motion, we analysed all motion who are involved in combination of cam motion in one cycle revolution - 360 degrees.

In the analysis of cam profile, analytical method was applied because of its a high degree of accuracy and the ordinate of the curves can be calculated by computer (using programming languages - Quick basic).

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