

COMPUTER AIDED DYNAMIC ANALYSIS
OF A
PISTON ENGINE

To my family

by
Nicolas Avraam

Project Report
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SUMMARY

The scope of this project is to find the forces and torque output of a crank-piston mechanism which is widely use in internal combustion engines today.

This project is devided into four chapters. Chapter 1 introduce us to the word of computers and how these affect technology. In Chapter 2 the concept of motion, kinematics and kinetics of planar mechanisms is discussed. In Chapter 3 the formulae governing the crank-piston mechanism are derided. In Chapter 4 the programming language is selected and the program flowchart is constructed. Then there is the program listing and user manual. After that the program is tested and the results are shown.

Dispite the relative simplicity of the analysis for the kinematics and kinetics of the crank-piston mechanism the results are very good compared with actual ones but with the presupposition that the engine under test is small (that is, the weight of the piston connecting rod, etc is not big) and is running at low speed.

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