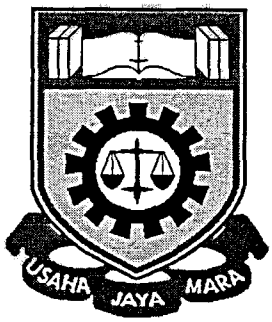

MARA INSTITUTE OF TECHNOLOGY
40450 Shah Alam
Selangor

School of Mechanical Engineering

FINAL YEAR PROJECT REPORT
Bachelor of Engineering
In Mechanical Engineering

Topic:

COMPUTER AIDED COST ESTIMATING SYSTEM

ABDUL HALIM BIN ALI
94126054

MOHD ZULHAIRI BIN MOHD NOOR
94111618

NOVEMBER 1996

ADVISOR : DR. TARIQ MAHMOOD

ACKNOWLEDGMENT

"Read: In the name Of thy Lord Who Createth
Createth man a clot
Read: And Thy Lord is the most Boubteous
Who teacheth by the pen
Reacheth men that which he know not..."

I am privileged by the Almighty Allah with His willingness we be able to finish writing the final project report.

We take this opportunity to extend our appreciation to our supervisor Dr. Tariq Mahmood for his morale support and encouragement. He has spent long tedious hours in the preparation of this report and presentation. He played a special role in getting this report out, for without his understanding, encouragement this report is meaningless.

We would like to thank Encik Kamal Zamali for his assistance in computer programming. We also would like to thank Nimma Safira binti Khalid, Salina binti Abdul rahman for their support, encouragement and patient until this report is finished. They have demonstrated to us of being high sensitive to people's feeling no matter how difficult the circumstances may be.

Lastly but by no mean least, to all my classmate and associates who contributed in terms of materials, efforts and ideas to this final project report and presentation.

Thank You

Abdul Halim Bin Ali
Mohd Zulhairi Bin Mohd Noor

ABSTRACT

One of the most effective way of reducing industrial cost and pollution is by cutting material waste through the application of near-net forming method. In the manufacturing of light engineering components, one such method is cold forging of steel where the required component shape is obtained by the application of large plastic deformation at room temperature. This result in significant cost reduction mainly by saving material compared with main alternative process, machining. The material saving is coupled with excellent surface finish and the tolerance of the component.

The difficulties in the application of cold forging are associated with the strict rule which must be observed by the product designer if the process is to be economical or even applicable at all in the particular case, so forging design must be accompanied by process planning which cost estimation in product manufacture is based on a defined manufacturing process.

The computer aided product cost estimating system was developed for this role. The system is in for personal computer, implemented in a modular form with graphic facilities to indicate the change in the present worth of forging cost with variation in any of the cost factors considered. This result in improved response time to meet customer and management needs and improved overall estimate accuracy.

TABLE OF CONTENT

CHAPTER 3

ECONOMIC ASSESSMENT