

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

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ADVISOR : DR. TARIQ MAHMOOD

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"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.

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ABSTRACT

One of the most effective way of reducing industrial cost and pollution is by cutting material waste through the application of nearnet 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.

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