

**A QUICK COST ESTIMATION SYSTEM DEVELOPMENT FOR TURNING  
MACHINE OPERATIONS**

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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## ABSTRACT

A Quick Cost Estimation System Development for Turning Machine Operations

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In this age of globalization, machining process is still the main role in the metal cutting industry. Some metal cutting companies offer good quality product with appropriate price. Production cost is responsible to consider the product price. Determining the production cost by estimating it in a quick and correct way will help a metal cutting company to compete in the metal cutting industry. Especially for a turning machine, since determining the production cost is by considering a different design means a different process plan and a different tool path. These factors affect estimating the production cost. An application for quick cost estimation is needed for a machining company. By input raw material type, machine type, workpiece geometry, cutting parameter, and process involved, this application will estimate machining time and total cost quickly. Since geometry of workpiece involved in a turning operation, then volume and weight of workpiece can be involved in estimating cost. With this application, a quick cost estimation will give the cost of part/product as precisely as possible.

**Keywords:** *Turning, Cost estimation, Prototype Application, Machining time, Machining Cost*

## **DEDICATION**

I would like to dedicate this thesis to my beloved parents who always support and help me, to all my brother and sister who share their experience and guide me, also to all my nephew and niece who have become part of my life.



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