

**ANALYSING EFFECT OF CANNY EDGE DETECTION IN IMAGE  
MEASUREMENT OF STAINLESS STEEL PRODUCT**

By

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MASTER OF MECHANICAL ENGINEERING  
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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, it 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

### ANALYSING EFFECT OF CANNY EDGE DETECTION IN IMAGE MEASUREMENT OF STAINLESS STEEL PRODUCT

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This paper presents the analysis of image processing usage as measuring tool and increasing accuracy after edge detection by Canny operation in MATLAB. A proposed material to be checked is a stainless steel grease trap. Detecting stainless steel material in a picture is set by analyzing its feature then proceed in threshold method. Analysis of measurement accuracy is done by doing two experiment of measurement, first in grayscale image condition and second in binary edge detected condition. The result of proposed method shows an increasing accuracy close to real dimension. Deviation of measurement result is more than 1% and it is considered as error which also analyze in some perception.

*Keywords: image processing, measurement, edge detection.*



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## **DEDICATION**

I dedicate this works for development of technology in my beloved country,  
Indonesia.



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