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**IMPROVING THE PRODUCTION EFFICIENCY IN
HIRDARAMANI (INDUSTRIES) LIMITED AT KAHATHUDUWA
USING STATISTICAL PROCESS CONTROL**

A PROJECT REPORT PRESENTED BY

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To the Board of Study in Statistics and Computer Science of the

POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of degree of*

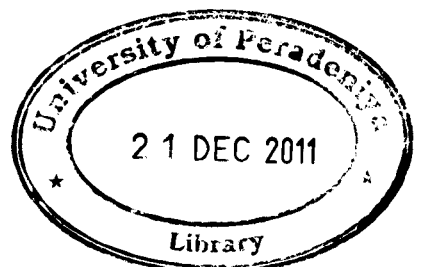
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The statistical analysis of the production process of Hirdaramani (Industries) Limited in Kahathuduwa is very useful in order to improve its production efficiency by identifying the problems and solving them. Therefore, our major objective is to identify the causes for the low production efficiency. The main problem identified at the Hirdaramani (Industries) Limited in Kahathuduwa is the higher percentage of defective garments. Our research is focused in finding out the factors relating to this higher percentage of defective garments and its link with production efficiency. Also, identifying the operator errors which contribute to loss time. In this study, data were collected in two stages of the production process during the period from October 2009 to November 2009.

Hirdaramani (Industries) Limited in Kahathuduwa is unable to fulfill its target due to various reasons such as Rework, Personal, Machinery Break Down, Operator Idle, Involve Others Jobs (operator involves others job due to absentees), Cut Delay and Mistakes.

To fulfill the main objective, descriptive analysis, process capability analysis and generalized linear modeling techniques are used. It is found that, defective rate of the production and absent rate of the work force affect to the production efficiency and Day, Time and Band also affect to produce high proportion of defective garments. Recommendations have been made for improving the data collection procedure of the production process which could help to further development of this study.