PROPOSED RFID-BASED INVENTORY CONTROL SYSTEM FRAMEWORK FOR PENFABRIC SDN BHD

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By

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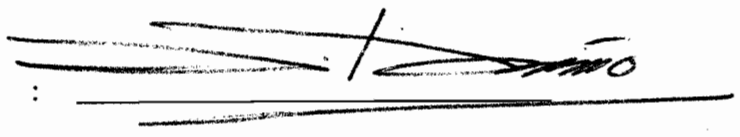
(Signature) : 

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ABSTRAK

Teknologi RFID ialah teknologi terbaru masa kini, teknologi ini sedang berkembang dengan cepatnya dalam semua pasaran termasuk industri pengeluaran. Objektif utama bagi projek ini ialah mengenalpastikan masalah sistem semasa, menyediakan penyelesaian untuk selesaikan masalah sistem dengan mengunakan teknologi RFID.

Dalam laporan ini, kita akan bincangkan masalah sistem semasa, pengaliran sistem kawalan inventori semasa, fungsi teknologi RFID dan rangkaian sistem kawalan inventori RFID baru dengan lanjutnya. Kita akan menunjukkan chat perbandingan dua cara ini bagi pengurusan untuk memilih cara yang paling sesuai bagi syarikat ini. Kita juga menunjukkan pelan implementasi sistem kawalan inventori RFID bagi syarikat untuk menjangkakan jadual waktu dan kos implementasi. Selain itu, kita akan memperuntukkan pelan masa depan untuk meningkatkan pengaliran perniagaan syarikat ini dengan menggunakan teknologi RFID.

Untuk memudahkan kita menyediakan projek ini dan datpatkan maklumat yang benar. Kita perlu menggunakan metadologi seperti temuduga, peninjauan, dan dokumen kajian. Semua metadologi ini boleh membantu kita mengenal pengaliran syarikat, mengenal persekitaran kilang dan teknologi RFID.

Selepas kita manghabiskan seluruh temuduga, kita dapati PENFABRIC SDN

BERHAD menhadapi masalah seperti tidak berupaya memperhatikan stok kerja dalam proses dan kebanyakan pengaliran proses disiapkan secara manual. Teknologi RFID boleh menyelesaikan semua masalah ini. Sebab itu, kita ingin mencadangkan pelan implemmentasi RFID kepada PENFABRIC SDN BERHAD.

ABSTRACT

RFID technology is the latest technology. Currently this technology has rapidly grown in all the market line including manufacturing industry. The main objective of having this report was to identify the current system problem, prepare the solution to overcome the current system limitation by using the RFID technology.

In the report, we will discuss the current system problem, current inventory control system flow, function of RFID technology and the new RFID inventory control system framework in detail. We will show the comparison chart of these two approaches for the management to choose which the most suitable choice is for the company.

We will also provide the RFID inventory control system implementation plan for the company to estimate the schedule time and the cost taken to implementation plan. Furthermore, we will provide some future plan to improve the company business flow by using the RFID technology.

In order for us to prepare this project in detail and provide the real information, we are using some of the methodologies such as interview, observation and document review. All these methodologies can provide us a clearer picture. With that we can understand of the company flow in depth, understand the factory environment and

RFID technology.

After going through this entire interview, we found out that, PENFABRIC SDN BERHAD is currently facing some problem such as unable to keep track the WIP stock and most of the process flow is manually done. By using RFID technology, it is able to solve this entire problem. Therefore, we would like to propose the RFID implementation plan for PENFABRIC SDN BERHAD.

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I was an application analyst in Computer Service Company and never done any job that related to the RFID technology before. Therefore I need help from the RFID supplier and the production manager of PENFABRIC SDN BERHAD. I would to thank my supervisor, Dr. Suhaidi Hassan, who helping and guiding me to prepare this research paper.

Mr John was the production manager of PENFBRIC SDN BERHAD for more than 10 years. He helped me with the work in process flow in the production area, show me the current inventory system flow, and the stock flow in the factory. Beside, he also toured me around the production area, raw material store room and finished good store room. And it is here that I thank him.

Thank also to Patrick for helping me on understand the RFID technology and implementation step. He was a RFID advisor in Jason & Jetson (RFID supplier). I am trouble him so much due to calling him to further understanding on the RFID technology.

TABLE OF CONTENTS

Page

LIST OF TABLE

Page

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

In this 20th century, technology is rapidly growing. Technology has become a hit feature being use by many organizations to survive in competitive industries and it is no longer an optional anymore. In the current market, there are many type of technology. Each of the technology has different type of features and benefit. Therefore choosing a correct and suitable technology is very important.

One of the latest technologies in the market is Radio Frequency Identification (RFID) technology. RFID is a technology that provides wireless solutions for real-time visibility, so that those activities on the ground and in the back office are centrally coordinated for optimizing productivity. Moreover, RFID technologies are integrates with value-added applications to effectively manage the supply chain and enable the automated workplace.

PENFABRIC TEXILE GROUP is the leading textile manufacturing company and it was established in Malaysia, year of 1973. Currently, they are having 4 Mills to run the entire business flow. The operation process of PENFABRIC is spinning, weaving, dyeing, printing and finishing operations to produce yarn, grey fabric,

The contents of the thesis is for internal user only

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