SUPPORTING MAINTENANCE MANAGEMENT SYSTEM (SMMS)

FOR MARA COLLEGE KUALA NERANG

RIZANAWATI BINTI RAMLI

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SUPPORTING MAINTENANCE MANAGEMENT SYSTEM (SMMS)

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By

Rizanawati Binti Ramli

KOLEJ SASTERA DAN SAINS
(College of Arts and Sciences)
Universiti Utara Malaysia

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(Name of Supervisor) : **MISS SYAHIDA HASSAN**

Tandatangan
(Signature) : _____ Tarikh (Date) : 27/2/2011

Nama Penilai
(Name of Evaluator) : **MR.AZMI MD SAMAN**

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ABSTRAK

Perkembangan teknologi terkini semakin meningkat penggunaannya dalam aktiviti harian terutamanya di bahagian pengurusan pentadbiran dalam sesebuah organisasi. Fokus utama projek ini adalah untuk merekacipta dan membangunkan Sistem Sokongan Pengurusan Penyelenggaraan (*SMMS*) untuk Kolej MARA Kuala Nerang Kedah. Sistem ini menyediakan antaramuka pengguna untuk staf, juruteknik dan staf pentadbiran dan operasi utamanya adalah menyediakan kemudahan kepada pengguna untuk mentadbir laporan kerosakan peralatan secara dalam talian. Kaedah yang terlibat dalam membangun Sistem ini diambil dari Papan Kerja Kitaran Pembangunan Sistem *(SDLC)* dan hanya empat fasa yang terlibat iaitu Analisa keperluan, Merekacipta, Membangun dan Menguji Sistem. Model UML telah digunakan dalam fasa menganalisa keperluan, Sistem ini dibangunkan dengan menggunakan Bahasa pengaturcaraan *ASP (Active Server Pages)* dan *HTML*. Model *Technology Acceptance Model (TAM)* digunakan untuk menguji Sistem dan tiga puluh dua (32) staff Kolej MARA Kuala Nerang telah terlibat dalam proses ujikaji ini. Faedah yang diperolehi daripada penggunaan Sistem ini ialah laporan kerosakan peralatan di Kolej MARA Kuala Nerang dapat dijalankan secara dalam talian dan dapat mengurangkan masa memproses permohonan. Selain itu, sistem ini juga dapat menjimatkan masa, kos dan tenaga terutama kepada staf yang sibuk dengan tugasan harian.

ABSTRACT

The system technologies are rapidly increasing uses in routine daily work specifically for the administration department applications in organizations. The aim of the study is to design and develop the Supporting Maintenance Management System for MARA College Kuala Nerang (SMMS), Kedah. SMMS is an online report application system which provides a convenient graphics user interface (GUI) for staff, technician and administration staff. This system allows users to do any report regarding to the equipments break down or malfunctioning equipment. The methodology for developing the prototype is derived from the System Development Life Cycle (SDLC) framework and contained only these four phases (i) Requirement analysis, (ii) Design, (iii) Develop and (iv) Evaluate the prototype. The UML model is used to model the system requirement, Active Server Pages (ASP) language and HTML coding is used to develop the prototype. Technology Acceptance Model (TAM) is used to evaluate the prototype which thirty two (32) staffs of MARA College Kuala Nerang are involved in this process. The significant of the study are the maintenance report will be done via online without using any application form, reduce application processing time and save time, cost and energy of the staff especially to those who are busy in daily work.

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LIST OF ABBREAVIATIONS

ASP	-	Active Server Pages
CAFM	-	Computer Aided Facility Management
CMMS	-	Computerized Maintenance Management System
FM	-	Facility Management MRO - Maintenance Repair and Operation
GUI	-	Graphics User Interface
HTML	-	Hypertext Markup Language
HTTP	-	Hypertext Transfer Protocol
IT	-	Information Technology
IIS	-	Internet Information Services
SMMS	-	Supporting Maintenance Management System
SDLC	-	System Development Life Cycle
TAM	-	Technology Acceptance Model
URL	-	Uniform Resource Locator

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

Maintenance is an activity such as tests, measurements, replacements, adjustments and repairs to retain or restore a functional unit in or to a specified state in which the unit can perform its required functions. Maintenance Management is an orderly and systematic approach to plan, organize, monitor and evaluate maintenance activities and their costs. A good maintenance management system coupled with knowledgeable and capable maintenance staff can prevent health and safety problems and environmental damage; yield longer asset life with fewer breakdowns; and result in lower operating costs and a higher quality of life (TID-AM-01, 2000). Due to that, the system proposed in this study is a Supporting Maintenance Management System for MARA College Kuala Nerang, uses to manage online maintenance report and it is one of the web based application technology. Perhaps by using this system, it will improve and facilitate the process of maintenance report and action will be taken faster than before. Moreover, management staff could use this system to monitor the report daily and it can be accessed anytime and anywhere. Depending on the application and design,

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