

**SCHOOL ACADEMIC SYSTEM via SMS**

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**UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

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JUDUL: School Academic System via SMS

SESI PENGAJIAN: 2008/2009

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Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

**SCHOOL ACADEMIC SYSTEM via SMS**

**ROZIATUL HASMAT BINTI MAT YAMIN**

**This report submitted in partial fulfillment of the requirements for the  
Bachelor of Computer Science (Computer Networking)**

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY  
UNIVERSITI TEKNIKAL MALAYSIA MELAKA  
2009**

## DECLARATION

I hereby declare that this project report entitled  
**SCHOOL ACADEMIC SYSTEM via SMS**

is written by me and is my own effort and that no part has been plagiarized without  
citations.

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( ERMAN BIN HAMID )

## **DEDICATION**

*I would like to say a lot thank you to my family especially to my beloved mom and dad who always give me encouragement to finish this project.*

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Alhamdulillah, thanks to god because with grant from Allah I get finish my project. In finish these project many experiences I was learnt. Many of people were involve in this project. Without their auxiliary and supported, I think this system will no do with prosperously.

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## ABSTRACT

Nowadays, computers are used to manage daily works. Without exception, in school also used the computer to manage daily administration and academic matters. Admin needs computer to store student marks and information. The process that used the computers is the student attendance and assessment process. Before this, most schools used computer as an equipment to save student's data. However, computers are merely used to store data and there are no systematic ways of storing data and turn that data into informational knowledge to admin and parents. For future usage, School Academic System (SAS) via SMS is suggested to solve that problem. This system has two sub-modules that have been developed, the student attendance and the assessment. This system use short message service, make announcement, checking status results and attendance. The objective of SAS is to make easier for parents to check status of their children assessment and attendance using online system or SMS. The assessment process that been developed on this system are for mid-term exam and final-year exam. This system follows by System Development Life Cycle and implemented using Hypertext Pre-Processor (PHP) language and MySQL database. The application chosen to connect PHP, MySQL and GSM Modem is Ozeki Message Server. It is formed by a few phases which are planning, analyzing, design and implementation and testing. Admin is responsible to manage student assessment while parents can check status of student assessment and attendance via online system or by SMS.

## ABSTRAK

Di zaman serba canggih ini, kebanyakan kerja harian di lakukan menggunakan komputer. Tidak terkecuali juga, di kebanyakan sekolah juga menggunakan computer. Diantara proses yang menggunakan komputer di sekolah juga adalah seperti proses penyimpanan data pelajar dan juga penilaian markah pelajar. Namun begitu, ianya tidak mencukupi kerana komputer hanya digunakan sekadar untuk penyimpanan data sedangkan ia boleh digunakan untuk memanipulasi data-data tersebut kepada maklumat yang berguna untuk kemudahan admin, dan ibu bapa. Oleh itu, Sistem Akademik Sekolah melalui SMS adalah merupakan sistem yang dicadangkan untuk menyelesaikan masalah-masalah yang dihadapi. Terdapat dua sub modul yang dikenal pasti untuk dibangunkan dalam sistem ini iaitu sistem kehadiran pelajar dan penilaian markah pelajar. Sistem ini menggunakan Sistem Pesanan Ringkas untuk membuat pengumuman, memeriksa status keputusan peperiksaan dan kehadiran. Tujuan pembangunan sistem ini adalah untuk memudahkan ibu bapa mengetahui status kehadiran dan markah pelajar menggunakan sistem dalam talian (menggunakan aplikasi web) atau telefon mudah alih ( servis SMS ). Proses penilaian markah pelajar yang dibangunkan dalam SAS adalah untuk penilaian markah peperiksaan pertengahan tahun dan peperiksaan akhir tahun. Sistem ini dibangunkan menggunakan dengan menggunakan bahasa pengaturcaraan Hypertext Pre-Processor (PHP) dan pangkalan data MySQL. Aplikasi bagi menghubungkan PHP, MySQL dan GSM Modem adalah Ozeki Message Server. Metodologi yang telah digunakan dalam membangunkan sistem ini adalah Sistem Pembangunan Semula. Ia terdiri beberapa fasa iaitu Perancangan, Analisis, Reka Bentuk, Implementasi dan Pengujian. Admin bertanggungjawab untuk menguruskan penilaian markah pelajar manakala ibu bapa boleh mengetahui maklumat peperiksaan dan kehadiran pelajar melalui sistem dalam talian (menggunakan aplikasi web) atau SMS



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## LIST OF ABBREVIATIONS

SMS		Short Message Service
SAS		School Academic System
UteM		Universiti Teknikal Malaysia Melaka
PHP		Pre-Hypertext Processor
GSM	-	Global System for Mobile
SK	-	Sekolah Kebangsaan
ICT	-	Information Communications Technology
ANSI	-	American National Standards Institute
CDMA	-	Time Division Multiple Access
ETSI	-	European Telecommunications Standards Institute
MMS	-	Multimedia Messaging Service
LAN	-	Local Area Network
HTML		Hypertext Markup Language
PDA		Personal Digital Assistant
GPRS		General Packet Radio Service
UNIX	-	Uniplexed Information and Computing System
SDLC	-	System Development Life Cycle
DFD	-	Data Flow Diagram
SQL	-	Structured Query Language

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# CHAPTER 1

## INTRODUCTION

### 1.1 Project Background

Nowadays, mobile technology was used widely. Therefore with this technology many things can be share together and this technology makes peoples can communicate to each other in the world. The mobile technology was developed for people used in their life daily. The most popular of mobile technology was peoples used are short message system (SMS). This technology is variety, therefore peoples can send message for donation, vote and others. This technology was always used by organizations such as mass media, educational organization, and others.

The project that will develop is constituted of School Academic System via SMS. This system developed for primary school student's result. As we know, nowadays most of the students always keep their real result from parents. So, their parents didn't know about their children results. Currently, primary school does not use SMS that allows the parents to check their status result. School Academic System (SAS) is a system that provides results by SMS. School Academic System (SAS) allows the parents to check their children result and attendance by SMS.

School Academic System (SAS) is a web-based system that is design and developed to check students result and attendance. It enables parents to know their

children result from any computer with an internet connection. With this system, the parents also can know their children results and attendance with the information that will be send via the Short Messaging Service (SMS) and through the web. So, the parents do not need to come and meet the teacher to get their children results and to know either their children come or not to school.

This system is develop for SK Bukit Beruang. This is because, this school was located near the UTeM area and it was easy to go to this school, so there will be no problem in order to collect information and doing research. Besides that, the SK Bukit Beruang was also one of the large primary schools in the nearby area.

## **1.2 Problem Statement**

The problem statements of this project are:

- There is no primary school that provides a checking student results and attendance via SMS.
- Manual system is hard to understand. Sometimes, a result can takes a very long time to be informed by the school. This can cause trouble to parents.
- Students always cheated their parents. This facility can prevent the parents without cheated by their children about the examination results and parents will always updated with current attendance of their children.

Parents always busy and have no time to meet teachers to know their children results.

### 1.3 Objective

The objectives of this project are:

- To develop system using open source that is Pre-Hypertext Processor (PHP) and send the message using GSM modem.
- To develop a system that could be used by parents to check their children status of examination result and attendance.
- To enables the system to send/receive SMS message to mobile devices with our computer by using Ozeki Server
- To enable parents to check their children result via SMS and website.

### 1.4 Scope

The scopes of this project are:

- This system is developed for primary school which is for SK Bukit Beruang. It only focuses for standard four, five and six of this school.
- This system is developed for registered parents who want to check their children results or attendance via SMS and website. Only registered parents and admin can access this system.
- This system developed for admin and parents usage only. The Admin is responsible to manage the system. Registered parents will be give password for login into web base through mobile after their registration to provide security of data.
- Only focuses for student's results and attendance.

## **1.5 Project Significance**

There are several benefit and significance of this proposed project. The results of this project is beneficial to the parents where by using SMS, allow them to easier check the status of their children result and attendance. Besides that, this system also can reduces time, where parents always busy with their works and have no time to meet teachers to know their children results. The system that was developed also to avoid risk skipping school among student because parents always can check their children status of attendance via SMS.

This application will communicate with the SMS provider to send / receives messages to the parents. The reasons of using the SMS as a medium communication between application and the parents are its easy to use and more effective way compared to email services or mass media announcements.

## **1.6 Expected Output**

The expected output of School Academic System (SAS) is based on the operation of the system. Parents can check the result of their children examination via the SMS or internet because this is a web based system. Other than that, parents also can check their children attendance via SMS. This system is to assist the parents with the easiest way to access their children info through SMS. The expected output of this system also to build a system that is user friendly, easier to use and systematic.