A SMART MODEL FOR WEB ATTENDANCE: CONTACTLESS TECHNOLOGY

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BAHAGIAN G : ABSTRAK PENYELIDIKAN – Tidak Melebihi 200 patah perkataan

Students' attendance records are important documents for academic institutions that reflect the students' performances and the credibility of the institutions. This research discusses the feasibility study that has been done in UiTM Pahang to identify the problems of recording and reporting students' attendances using manual attendance system. In this study, 550 respondents ranging from the lecturers, students and the management of UiTM Pahang have taken part in the fact-finding process through distributions of questionnaires. From the findings, a well-managed system is indeed needed to be reinforced in order to make the process of recording and reporting the attendances more efficient. This research discusses the development of the proposed Smart Model Attendance Register System (SMART) by adapting the System Development Life Cycle (SDLC) methodology. The new system is being developed involving the integration of various open source web-based technologies such as MySQL, PHP and Apache Web Server and accordingly making the system more efficient and cost effective. The new system consists of automated processes such as ability to generate online attendance reports, warning letters and graph charts thus making the processes of recording and reporting the students' attendances more efficient and well-organized.

Tandatangan Ketua Projek :  Tarikh : 21 Januari 2013

BAHAGIAN G : PENGESAHAN PENOLONG NAIB CANSELOR (PENYELIDIKAN) / KETUA PENYELIDIKAN (S&T) / KETUA PENYELIDIKAN (SSP)

Tandatangan/ Cop: **Tarikh:**

UNIVERSITI TEKNOLOGI MARA

PEMENANG Anugerah Kualiti Perdana Menteri 2008

Surat Kami : 600-RMI/ST/DANA 5/3/Dst (287/2011)
Tarikh : 6 Jun 2011

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Y. Brs. Profesor/Tuan/Puan

KELULUSAN PERMOHONAN DANA KECEMERLANGAN 06/2011

Tajuk Projek	:	A Smart Model For Web Attendance : Contactless Technology
Kod Projek	:	600-RMI/ST/DANA 5/3/Dst (287/2011)
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Dengan hormatnya perkara di atas adalah dirujuk.

2. Sukacita dimaklumkan pihak Universiti telah meluluskan cadangan penyelidikan Y. Brs Profesor/tuan/puan untuk membiayai projek penyelidikan di bawah Dana Kecemerlangan UiTM.

3. Bagi pihak Universiti kami mengucapkan tahniah kepada Y. Brs. Profesor/tuan/puan kerana kejayaan ini dan seterusnya diharapkan berjaya menyiapkan projek ini dengan cemerlang.

4. Peruntukan kewangan akan disalurkan melalui tiga (3) peringkat berdasarkan kepada laporan kemajuan serta kewangan yang mencapai perbelanjaan lebih kurang 50% dari peruntukan yang diterima.

Peringkat Pertama	20%
Peringkat Kedua	40%
Peringkat Ketiga	40%

5. Untuk tujuan mengemaskini, pihak Y. Brs. Profesor/tuan/puan adalah diminta untuk melengkapkan semula kertas cadangan penyelidikan sekiranya perlu, mengisi borang setuju terima projek penyelidikan dan menyusun perancangan semula bajet yang baru seperti yang diluluskan. Sila lihat lampiran bagi tatacara tambahan untuk pengurusan projek.

Sekian, harap maklum.

"SELAMAT MENJALANKAN PENYELIDIKAN DENGAN JAYANYA"

Yang benar

DR. OSKAR HASDINOR HASSAN
Ketua Penyelidikan (Sains Sosial dan Pengurusan)

/RS./as

5.3 Introduction

There are empirical evidences revealed that the students' attendance records have become one of the primary factors to determine the students' academic performances and personal achievements. This claim has been confirmed by a previous research where it had proven a meaningful correlation between the attendance records of the students and their academic performances (Newman-Ford et al, 2008). From the findings, the researchers had discovered that the students' attendance records were much better predictor of grades compared to the other factors such as family background, gender, student's prior education or age. Furthermore, it had also revealed that poor retention rates were recorded among students who were constantly failed to attend classes consistently.

Previous research has revealed that in most of the higher academic institutions in Malaysia, the recording of the students' attendances are mainly done by pen and papers (Othman et al, 2009). This manual attendance system involves the distribution and circulation of attendance sheets in classes for the students to sign in. The traditional practice is indeed more time consuming, error-prone and risks of losing the records are very high, thus making it less efficient (Othman et al, 2009). Furthermore, by using the manual system, the process of reporting the attendances will become more difficult for the lecturers and administrators where they have to update the attendance records regularly then calculate the percentage of classes attended manually (Nawaz et al, 2008). Therefore, through their research, in order to improve the process of recording and reporting the students' attendances, an online system named Attendance Register System has been developed by the researchers (Othman et al, 2009).

However, in their work, the development of the Attendance Register System is only limited to certain processes, thus affecting many of the online queries and requests that need to be redesign and re-develop. Therefore, in this study, the development of the Online Attendance System involves the enhancements of a new conceptual framework where system's scopes and requirements had been widened and more diverse. The logical design and physical features of the attendance system had also been reengineered to ensure the online system is properly adapted to the web-based architecture thus providing a more comprehensive and efficient processes in attendance record keeping and reporting.

All of these limitations regarding the manual system highlighted the needs to improve the process of attendance recording and reporting in higher academic institutions. The traditional method by using pen and papers are not just inefficient but it will require the