**Chapter I**

**Introduction**

**1.1 Background of the study**

In this day and age, data are the most valuable asset that one can possess. Therefore, data is considered one of the most valuable assets for any organization. As a result, if the data are accurate, complete, organized, and consistent, it will help the organization grow. In contrast, it would become a significant liability.

Furthermore, the amount of data connected to an organization today is unprecedented, making manual processing impossible. Therefore, it is critical to invest in an effective data management system.

**1.2 Statement of the problem**

The existing system in many senior high schools relies on a manual, paper-based approach for managing student information. However, this traditional method poses significant challenges in terms of maintaining accurate and organized student records. The manual system is both labor-intensive and time-consuming, thereby hampering efficiency. Considering these difficulties, the need for an improved approach has become evident. Therefore, we propose the development of a computerized student information management system for senior high schools.

**1.2.1 General Problems:**

The current system involves manual entry of student information using pen and paper, which causes significant difficulties for the faculty. There is a possibility that these records may go missing or be destroyed in an accident. In addition, a problem occurs when you need to search for a record because the records are large in number and the chances of errors are maximum in manual mode.

**1.2.2 Specific Problem:**

* **Risk of loss or damage:**
* Records may go missing or be destroyed in an accident (fire, water, and damage)
* Irrecoverable loss of important information
* **Record retrieval issues:**
* Time consuming and cumbersome to locate specific records manually
* Leading to delays in finding information or records
* **Difficulty in Accessing Announcements:**
* The current process lacks efficiency, potentially causing students to miss important updates.

**1.3 Objectives**

The proposed MARCIANO DEL ROSARIO MEMORIAL NATIONAL HIGHSCHOOL (SHS) Student Information Management System (SIMS v1.0) provides a dependable management of student records. This can also help the staff to lessen their workload as this will make the process faster and easier.

**1.3.1 General Objectives**

The general objective of this project is to develop a Student Information Management System for the Senior High School students of Marciano Del Rosario Memorial National High School. This system enhances the efficiency and convenience of school operations. By replacing manual paperwork with a digital system, the school's processes will be faster, resulting in substantial time savings.

**1.3.2 Specific objectives**

For the realization of the project, the following are the specific objectives:

* Create the school’s student portal
* Include announcements in the dashboard and via email of school events, etc.
* Include good security for the system.
* Implement Analytics to provide insights and data-driven decision support.

**1.4 Significance of the study**

The deployment of the Student Information Management System (SIMS) at Marciano Del Rosario Memorial National High School has several significant effects. Initially, the implementation of this system will help reduce the administrative workload for educators and personnel.

Furthermore, it will afford students convenient access to their academic records and timetables, and foster a more involved and knowledgeable student community through the use of a centralized dashboard. This study effort has the potential to serve as a model for other educational institutions that encounter comparable difficulties in information management.

**1.5 SCOPE AND DELIMITATIONS**

**1.5.1 SCOPE**

The scope of this project involves the development of a comprehensive student information management system tailored for the Senior High School section at Marciano Del Rosario Memorial National High School. The objectives of the project are as follows:

* Efficient management of SHS student records, including personal information, grades, and attendance.
* Introduces an organized information system that enables quick search and retrieval of records.
* Implements an automated system for generating unique student accounts based on their Learner's Reference Number (LRN), streamlining processes.

The system functionalities comprise:

* Data Storage:
  + Facilitates updating, saving, and deletion of specific data categories, including Personal Information, Attendance, and Grades.
  + Note: Online payment and transaction features will not be included; manual methods will be maintained.
* System Access and Usage:
  + Restricted access is limited to authorized personnel: principals, approved faculty, and staff members.
  + Only authorized users, including principals and faculty, will be able to input student grades.
  + The system administrator will retain complete control over system management.  
    Moreover, the project encompasses the creation of a user-friendly web portal, featuring:
* Student Login:
  + Enabling students to access their individual information stored within the system.
* School Information:
  + Present the school’s information regarding school-related events through the online portal.

**1.5.2 Delimitations:**

However, there are certain limitations to be acknowledged:

* The proposed system will focus exclusively on Senior High School (SHS) processes and data management, covering students from their initial entry to graduation. Junior High School (JHS) processes will not be integrated into this system..
* While the system will provide students with the ability to view their grades and academic records, online payment functionality will not be included, and manual payment methods will be maintained.

**Chapter 2**

**Review of Related Literature/System**

**2.1 Local Related System**

As claimed by Arenas T. (2013), an online grading system can benefit the teachers, coordinators, students and parents through an effective and efficient way of accessing and managing students’ academic grades.

**2.2** **Foreign Information System**

According to S.R. Bharamagoudar (2013), the accurate and timely creation and management of information pertaining to a student's academic trajectory holds significant importance within the context of both universities and colleges. The student information system encompasses a comprehensive range of student particulars, including academic reports, college information, course details, curriculum, batch information, placement records, and other pertinent resource-related information.

Reference: Bharamagoudar, S. R., Geeta, R. B., & Totad, S. G. (2013). Web based student information management system. International Journal of Advanced Research in Computer and Communication Engineering, 2(6), 2342-2348.

In agreement with Lubanga S. (2018), adoption of such systems as the Online Student Information System (OSIS) in academic institutions, the experience is that it has now become easy to harness and fast track all students' records in one centralized database via internet technology. While the benefits of OSIS seem to be celebrated, it has been a hustle for most universities in Africa to completely go digital in their operations due to poor ICT infrastructures that seem to be prevalent in the region. In Malawi, a social survey was conducted with the aim of assessing the Mzuzu University Student Online Management System (SOMS) from the perspective of students.

Reference: Lubanga, S., Majawa, F., Kapondera, S., & Chawinga, W. D. (2018). Web based student information management system in universities: experience from Mzuzu University.

Confirming to Niu, C. (2021, July) In addition, due to the development and merger of colleges and universities, there are many campuses in many colleges and universities, which are accompanied by the dispersion of students and administrators. To facilitate unified management, a multi-campus college student management system based on cloud computing is designed and developed, which integrates information management, statistical analysis, online information publishing and collection.

Reference: Niu, C. (2021, July). Research on Design Scheme of Multi-campus College Student Management System Based on Cloud Computing. In Journal of Physics: Conference Series (Vol. 1982, No. 1, p. 012190).

According to Venugopal, G., & Jain, R. (2015, October) It was found that there is a positive correlation between student engagement and the use of LMS. It was also observed that there is a strong positive correlation between the presence of various modules of the LMS in a course and the usage of the LMS by the students from outside the campus. Another finding made by the authors was that the off-campus usage and the on-campus usage of the LMS by the students are strongly correlated to each other.

Reference: Venugopal, G., & Jain, R. (2015, October). Influence of learning management system on student engagement. In 2015 IEEE 3rd international conference on MOOCs, innovation and technology in education (MITE).

According to C K Gomathy(2022), In order to provide this service we designed simple follow of the Students Information role Management System enter project which has various of modules which is helpful for the student administration to the of efficiently faculty manages them student’s details.

https://www.researchgate.net/publication/359120519\_STUDENT\_INFORMATION\_MANAGEMENT\_SYSTEM