

**DEVELOPMENT OF RESEARCH INFORMATION SYSTEM FOR SCHOOL OF
COMPUTER STUDIES IN CITY COLLEGE OF TAGAYTAY**

A Capstone project presented to the
Faculty of the School of Computer Studies,
City College of Tagaytay

In partial fulfillment
of the requirements for the degree
Bachelor of Science in Information Technology

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ABSTRACT

Lecture timetabling is a very important process in any educational institution. It is an open-ended program in which courses must be arranged around a set of time slot 'T' and remains so that some constraints are satisfied. It constitutes a class of difficult-to-solve optimization problems that lacks analytical solution method. Data gathering on the current system was analysed to create a requirement definition for the improved timetable system. Literature review was carried out to search the best approach that can help to solve the problem in the timetable system. Genetic Algorithm has been implemented in the Timetable Management System. This is because Genetic Algorithm is able to produce a feasible timetable system. Java, XML and PHP programming languages were used in developing the solution. MySQL database was used as the back-end for the solution. The front-end solution will be implemented in an android mobile operating system for easier accessibility and proximity to users.

Chapter I

INTRODUCTION

Background of the Study

Computers are a huge help in today's world when it comes to development. They have an enormous capacity for data storage and can perform sets of sequential activities quickly. People construct and use information systems, a combination of hardware, software, and telecommunication networks, to collect, create, and distribute relevant data usually in corporate settings (Bourgeois & Bourgeois, 2014).

The School of Computer Studies Faculty Room or SCS Faculty Room located on the 4th floor of City College of Tagaytay, has a storage cabinet for its collection of Information Technology and Computer Science-related research manuscripts. It's the location where the SCS Research Coordinator stores the list of manuscripts submitted by SCS Students.

The SCS Research Coordinator uses manual approach in handling and storing research manuscripts. SCS Students were having difficulty accessing the list of research established in previous years due to a lack of a Research master's list. For this reason, the proponents are working on research called "Development of Research Information System for School of Computer Studies in City College of Tagaytay".

The proposed system is for managing research manuscripts created by the alumni students of School of Computer Studies in City College of Tagaytay as a graduation requirement. The SCS Research Coordinator's primary concern is how

to make it simple for students in the School of Computer Studies to borrow or look for previous research manuscripts. The proponents aim to develop a system that can only be accessed through the College's Wi-Fi Connection, allowing SCS students to have access to research without browsing the research storage cabinet. It will be available only at the institution, increasing system security and assisting the SCS Research Coordinator in their work. SCS Students will also no longer have to be concerned about obtaining the research manuscripts they need, as this will be a simple process, especially when considering the expanding number of students. Having access to solid examples of research will significantly help the SCS Students since it would supply them with innovative ideas and knowledge that they could apply to their research or thesis projects.

The proposed system will solve the current manual approach of recording and storing SCS Student research manuscripts. The system's availability will not be an issue because many students are now using laptops/computers.

Objectives of the Study

The study's overall goal is to create a web-based local application that aims to ease the work of the SCS Research Coordinator by providing a more flexible, easy-to-use system to manage the research manuscripts and reduce the time of students searching for their needed research manuscripts. Specifically, the study aims to:

1. design the system called "Development of Research Information System for School of Computer Studies in City College of Tagaytay," which is capable of:

- a. providing a virtual storage that could improve the manual process of storing and managing of research manuscripts;
 - b. providing users with individual accounts to access the system;
 - c. providing a notification inbox to manage communication between each user;
 - d. providing SCS Students the ability to search and view research abstract or research full content;
 - e. providing a system with security features to protect research content:
2. test the system performance through unit, integration, performance, and acceptance testing;
3. evaluate the system if it conforms with the ISO 9126 standards and;
4. prepare an implementation plan of the system for the organization.

Scope and Limitation of the Study

The study focuses on the "Development of Research Information System for School of Computer Studies in City College of Tagaytay," a web-based local application that will be accessible only to users connected to the School's Wi-Fi connection. The system will serve as a virtual storage facility for soft copies of research for students under the School of Computer Studies.

The system will have three (3) levels of access such as SCS Research Coordinator, MIS Officer, and SCS Student. SCS Research Coordinator will also act as the System Administrator, capable of updating changes in the system. Each user is required to log in before they can access the system. The system will

automatically determine which user is attempting to log in and redirect them to their respective panels. The users must be connected to the school's internet connection to access the system via provided URL. This is to prevent outsiders from gaining access to the school's property. For security purposes, changes made in the URL will only bring the user back to their respective panel. The system also prevents viewing multiple research projects simultaneously using different tabs.

SCS Research Coordinator (System Administrator) has access to uploading research files, hiding/archiving those research that they wish to keep private, and publishing any research from the hidden research to be made available for SCS Students to view. Upon logging into the system, the SCS Research Coordinator (System Administrator) can instantly see the latest number of received requests from the Notification Inbox pertaining to SCS Students requests to obtain full access to research content. SCS Research Coordinator (System Administrator) can choose to accept or decline the requests. The SCS Research Coordinator (System Administrator) can also view the list of those SCS students who are active and inactive on the system. Active Student Approved Research, is where the SCS Research Coordinator can view those researches that SCS Student has obtained full content access to. From there, the SCS Research Coordinator (System Administrator) can decide to remove SCS Student full content access to previously approved research. Another way for the SCS Research Coordinator (System Administrator) to terminate SCS Student access to specific research is to click each research from Published Research, which will display the list of those who

have access to that research. From there, the SCS Research Coordinator (System Administrator) can choose to delete student access to a particular research. The SCS Student must submit a new request and wait for it to be accepted again by the SCS Research Coordinator if they want to obtain full access to a recently removed research access. The SCS Research Coordinator (System Administrator) also can view MIS Profile Information and the current MIS Officers Activity Log. The SCS Research Coordinator (System Administrator) is also responsible for creating, deactivating, or even reactivating old MIS officer account. When requested, the SCS Research Coordinator (System Administrator) can also reset the password of the MIS Officer. Once the present SCS Research Coordinator (System Administrator) gets replaced or resigned, SCS Research Coordinator must make an account for the newly assigned SCS Research Coordinator (System Administrator). Upon the activation of the new SCS Research Coordinator (System Administrator) account, the account of the former Research Coordinator will be deactivated, and the system will automatically archive all of their activity logs. The archived activity logs contain records of all SCS Research Coordinators on the system from the past to the present. It has a search bar to perform searching by date or by a specific activity. If there's an instance where the old SCS Research Coordinator (System Administrator) returns and gets assigned once again to be the SCS Research Coordinator, the current SCS Research Coordinator (System Administrator) could reactivate the old account of the past SCS Research Coordinator (System Administrator); this would cause the former SCS Research Coordinator or System Administrator's account to be deactivated

automatically. The SCS Research Coordinator (System Administrator) could also manage their account by changing the password or editing their account information. Any activities made by the SCS Research Coordinator (System Administrator) will be recorded on their activity log. Even if they clear it, it will still be recorded on the Archived Activity Log. In the SCS Research Coordinator (System Administrator) Dashboard, Research Status Ratio is represented using a Bar Graph to show the number of Published and Hidden/Archived Research uploaded to the system. Research Categories are represented using a Pie Graph to indicate the number of research in each category.

The MIS Officer is the person assigned to manage the accounts of SCS Students. They create an account for the SCS Student in the system as soon as a student registers under the SCS Department. If SCS Student shifts to a different course under a different School Department, the MIS officer may deactivate the student's account on the system, or if there's an instance where a student transfers to a course under SCS, the MIS officer will also provide the transferee student an account. The MIS officer can deactivate or reactivate an SCS Student's account or edit student account information such as applying global modifications on the course, advancing year level, and changing sections. The old SCS Students (or those students registered under SCS before the implementation of the system) needs to approach the MIS officer and request for an account to access the system. Upon logging into the system, the MIS Officer can instantly see the latest number of requests for password reset received from SCS Students and an alert regarding an MIS Officer's password change done by the SCS Research

Coordinator (System Administrator) on the Notification Inbox. On the MIS Officer's dashboard, a graph showing the number of Students per Year-Level, Students Gender Ratio, Student Course Ratio are also displayed, and the overall Student list. The MIS Officer could also edit their profile information and change their password. Any activities in the system made by the MIS Officer will be recorded on their activity log. The Activity Log of the MIS Officer can be viewed by the SCS Research Coordinator (System Administrator).

SCS students will have access to viewing research abstracts available on the system. For permission to view the full content of the research, they may ask the SCS Research Coordinator (System Administrator) however, they must first agree on the Strict Policy before they can view the full content. The Strict Policy protects the author of the thesis's intellectual property/ school property. Upon logging in to the system, the SCS Student can instantly see a number on the Notification Inbox pertaining to number of notifications received regarding the status of requests made for permission to view the full content of particular research, such as approved or declined access, removed full content access on a previously approved research, as well as an alert regarding password reset as per request. Only active SCS Student have access to the list of research projects submitted by former SCS Students. They can also view the research details, such as the course it belongs to, the year it was submitted, its research category, and the authors. Once an SCS Student sends a request to view full access to a particular Research, they can no longer send another request for the same research. On the SCS Student dashboard, a graph representing the number of research under different

Research Categories and a graph illustrating the total Number of Available research from each course under SCS are displayed. An SCS student can access their profile information and change their current password on their account once they have logged into the system. Any activities in the system made will be recorded on the activity log, and SCS Student can clear their log history. If an SCS Student forgets their account password, they must request a password reset on the login page “Forget Password.” From the forget password, they will be asked to provide their student number and email address (gsuite account), from which they will be asked if they’re requesting a password reset. Upon confirmation, the MIS officer will reset their password. MIS officer will ignore other email addresses except for the gsuite account.

The system will be divided into five modules: the Account Management Module, the Record Management Module, the Research Management Module, the Transaction Management Module, and the Activity Log Module.

The **Account Management Module** is used to log in to the system and to create and edit account information of SCS Students, MIS officers, and the SCS Research Coordinator (System Administrator). The account Management Module handles users’ accounts and each account’s security.

The **Record Management Module** is used in managing records of all users (SCS Students, MIS officers, and SCS Research Coordinator (System Administrator)).

The **Research Management Module** is used in managing records of research. This module will provide a list of research and is accessible to the SCS Research

Coordinator (System Administrator) and SCS Student but what they can do in it varies from the user, for the SCS Research Coordinator (System Administrator), they can be able to upload, view, and control the list of all researches viewable to SCS Students. In contrast, SCS Students can only view the abstracts of the research and make a request to view the full content of the research. The SCS Research Coordinator (System Administrator) can decide whether to accept or decline. SCS Students are also required to acknowledge the Strict Policy before the system displays the full content of the research. Both SCS Students and SCS Research Coordinator (System Administrator) could use search filters to narrow down the results of their searches. Research can be searched by title or be filtered according to its research category, the year it was submitted, or which specific course they belong to.

All Research contents will be read-only, and refusing to acknowledge the Strict Policy will prevent SCS Students from viewing the research's full content. The system prevents SCS Students from downloading or copying research content.

Transaction Management Module manages all requests made by each system user. The SCS Research Coordinator uses it to manage SCS Students' requests to gain full content access to research. The MIS Officer uses it to manage requests made by SCS Students to reset their Password, while the SCS Students use it to send requests to obtain full content access on research and request password reset.

Activity Log Module. It is used in tracking the activities of all users. For the Research Coordinator (System Administrator), it is used to keep track of recently

added research, recently archived research, recently published research from the list of archived research, recently approved or recently declined research requests, recently removed research access of SCS Student on a particular Research as well as keep track of recently added/activated/deactivated account of MIS Officer and Research Coordinator (System Administrator) and changes in profile information and password. For MIS Officer, it is used to keep track of recently added/ activated/ deactivated SCS Student accounts and changes in profile information and password. As for SCS students, the activity log module keeps track of recently requested research and password modifications.

Significance of the Study

The proponents believe that the proposed capstone project, "Development of Research Information System for School of Computer Studies in City College of Tagaytay," will aid in collecting and storing and ease in providing research access while ensuring its security. It aims to make it easier for the SCS Research Coordinator to manage the research manuscripts by providing a web-based research information system that is only accessible to CCT's network connection. This ensures that research manuscripts are secured and do not take up a lot of space in the SCS facility. SCS students will be able to view the research abstract and have the chance to view full research content if permitted by the SCS Research Coordinator. The system makes it easier for SCS Students to look up research available. This will reduce the likelihood of proposing and developing the same system or study. The system would also provide the SCS Students with

various ideas and knowledge through solid research references. It could help SCS students build ideas to enhance already existing research/ studies done in the past by already graduated students.

The Proponents will gain and enhance their knowledge in terms of creating research.

This will also benefit future researchers as this will serve as a future reference to improve the given study further.

Theoretical Framework

The theoretical framework is a collection of interconnected ideas that will guide the proponents to build the proposed research.

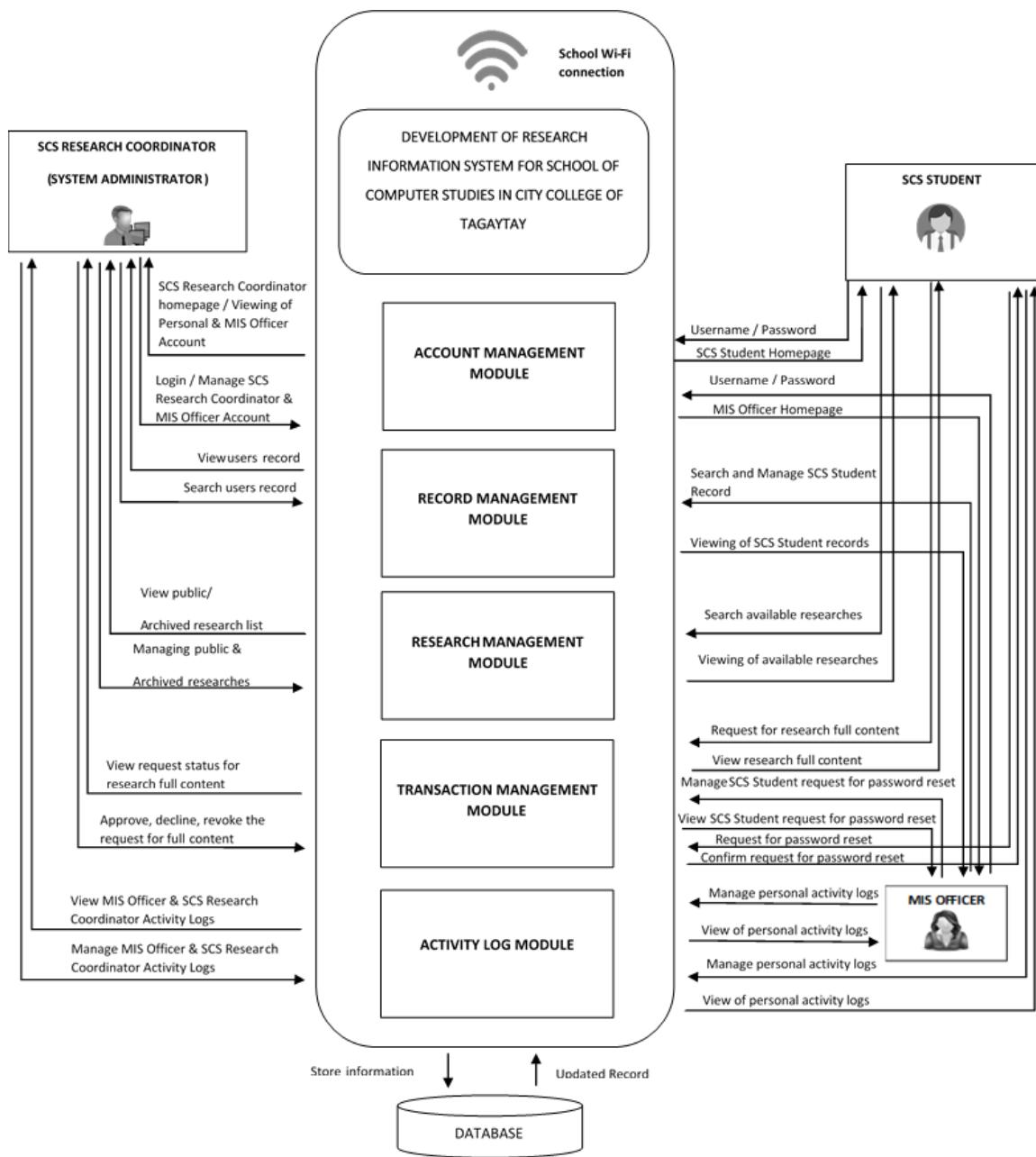


Figure 1. Theoretical Framework of Development of Research Information System for School of Computer Studies in City College of Tagaytay

The Theoretical Framework of the study, as illustrated in Figure 1, demonstrates the study's process through each user. The "Development of

"Information System for the School Computer Studies in City College of Tagaytay" contains the following modules:

Account Management Module. This module holds each user's account and security. It handles logging in to the system, creating accounts, and updating and editing each user's account information (password change and account activation/deactivation).

The SCS Research Coordinator (System Administrator) can only view the list of registered students on the system but is in charge of account management for MIS Officers and the SCS Research Coordinator. The MIS Officer handles account management for SCS students.

Research Management Module. This module holds records of all research. The SCS Research Coordinator (System Administrator) upload, view, archive, and publish research, while SCS Students can only view researches that are available on the system.

Record Management Module. This module holds records of all users and is responsible for managing every user's records. The SCS Research Coordinator (System Administrator) can search, view, and manage records of the SCS Research Coordinator (System Administrator) and MIS Officer, as well as search and view SCS Students registered in the system while the MIS Officer can search, view, and manage the records of SCS Students.

Transaction Management Module. This module holds records of all research request transactions. If an SCS Student would like to further access the content of particular research, they can request permission from the SCS

Research Coordinator (System Administrator). If a student forgets his password, he can contact the MIS Officer for a password reset. The SCS Research Coordinator (System Administrator) can manage (approve or decline) every particular request made by SCS students to view the full research content. SCS Research Coordinator (System Administrator) also decides when to remove SCS Student full content access to particular research. This module also holds records of all requests for a password reset.

Activity Log Module. This module holds all user activity and keeps any system activities performed by a particular user. All of the system's data will be stored in the database, and updated content will be available for users to view.

Conceptual Model of the Study

A conceptual model is built based on the concepts, theories, and findings of linked literature provided, as well as insights gained from them as shown below:

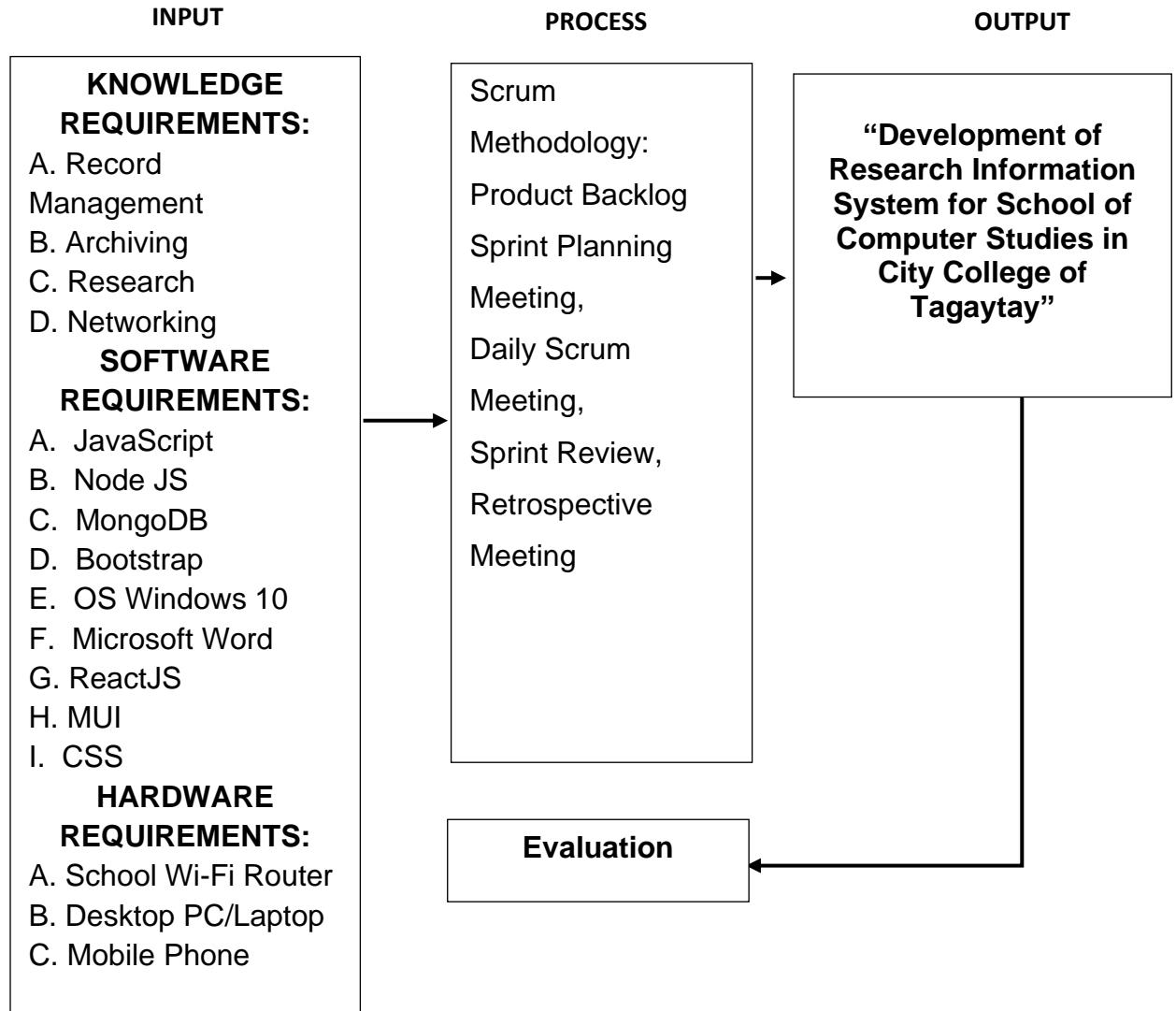


Figure 2. Conceptual Model of the Development of Research Information System for School of Computer Studies in City College of Tagaytay

As shown in Figure 2, Input, Process, Output, and Evaluation are the four essential tasks conducted to develop the system.

Input Stage. About the development of the study, the input stage included knowledge, software, and hardware requirements. The knowledge requirement

defined the needed knowledge for completing the Development of Research Information System for the School of Computer Studies in City College of Tagaytay. The software requirement of the system is the following; JavaScript will serve as the programming language, React JS functions as the systems Framework, NodeJS links the database from the front end, MongoDB acts as the system's database, and Bootstrap, CSS, and MUI are used in designing the system interface. The proponents will also use Microsoft Word for the documentation and Windows 10 as the operating system. The hardware requirements are Wi-Fi, a mobile phone, and a Computer set/Laptop.

Process Stage. “The Development of Research Information System for School of Computer Studies in City College of Tagaytay.” used the Scrum methodology to help the proponents develop the system. The process stage is composed of phases of Scrum Framework. Namely, Product Backlog, Sprint Planning Meeting, Daily Scrum Meeting, Sprint Review, Retrospective Meeting.

The first stage in building the system is to generate a product backlog, which is a list of tasks that must be accomplished to develop the system. Product Backlog Items are usually sorted by value, priority, and necessity. It is a sequence of highest to lowest priority, with each entry having a unique order. The Product Owner has the ability to modify the order of items in the Product Backlog according to what he wants to prioritize. Following creating the product backlog, the product owner will determine the duration of each sprint, and then an initial Sprint Planning with the Sprint Product Owner and the Scrum team will be conducted.

Sprint Planning is done regularly, depending on the agreed sprint duration. Sprint Backlog is negotiated between the development team and product owner, and this is a list of things that will be worked on during the particular sprint.

A **Daily Scrum Meeting** with the Scrum Master will be held to synchronize operations and formulate a plan for the next 24 hours. This is necessary to deliver the sprint goal. If the team has completed the goal early before the particular sprint duration ends, the Scrum team can be allowed to pick up the next activity in the product backlog and start working on it.

At the end of each sprint, there would be a **Sprint Review** where outcomes will be shown and assessed by the Product Owner, who will have to approve or reject the results. Suppose the Scrum Team gets positive feedback on the Sprint Review. In that case, the Scrum Team can now work on the next Sprint by moving on to the next product activity in the Product backlog, whereas if the Team gets negative feedback, the Product Owner can also make decisions regarding future project changes and plan the goal for the next sprint based on the outcome of the Sprint. The Scrum Team generates a new version of the system with enhanced value each iteration.

The team also holds a **retrospective meeting** after the sprint review and before sprint planning to assess what went well and what could be improved in preparation for the next sprint, which occurs every two weeks and will continue until the development team comes up with a complete working system.

Output Stage. The output of the study is a complete working “Development of Research Information System for School of Computer Studies in City College of Tagaytay.”

Evaluation Stage. In this stage, evaluation was carried out to ensure the software quality characteristics of the system in terms of functionality, usability, content, and design. The proponents obtained feedback from the intended users for the pre-assessment. The proponents presented a questionnaire/evaluation form to determine whether the system met the ISO 9126 requirements for the final evaluation.

Operational definition of terms

For a better understanding of the study, the following terms were operationally defined:

Archive. Research is hidden from all users except the system administrator.

Database. Storage of Research and User Accounts.

Front-end. Relating to or denoting the part of a computer system or application with which the user interacts directly.

Interface. A program enables a user to communicate with a computer.

MIS Office. Responsible for managing the City College of Tagaytay’s Information System

Module. It is the design of one functional form in the system.

Product Owner. It is the person who fully understands what has to be produced during the sprint and demands activities to be executed during the Sprint. He is the SCS Research Coordinator and will be the System Administrator.

MIS Officer. It is the person who creates the SCS student account.

Record Management. It is the supervision and administration of digital records.

Sprint. It is a time-boxed session during which proponents strive to complete a specific amount of work discussed during the Sprint Planning Meeting.

System Administrator. A person who manages a computer system, the SCS Research Coordinator, would act as the system administrator.

Web-based. A system that could be accessed through a Web Browser with an internet connection. It is the kind of system the proponents will develop, and they will use the City College of Tagaytay Wi-Fi Connection to access the system.

Chapter II

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents the relevant literature and studies that the proponents considered when determining the importance of the present research.

Technical Background

Bootstrap. It's a front-end development framework for building websites and online apps that are free and open-source. The Bootstrap framework uses HTML, CSS, and JavaScript (JS) to make creating responsive, mobile-first websites and apps easier. Along with the framework for implementation, Bootstrap includes user interface components, layouts, and JS tools. Precompiled or source code versions of the software are available. (www.whatis.techtarget.com)

CSS. CSS (Cascading Style Sheets) is a style sheet language for describing the presentation of an HTML or XML document (including XML dialects such as SVG, MathML or XHTML). CSS specifies how elements should appear on a screen, on paper, in speech, and other forms of media. (developer.mozilla.org)

MUI. In the Windows operating system, Multilingual User Interface (MUI) is a technology that offers users a customized user interface for globalized programs and user interface language resource management. (docs.microsoft.com)

HTML. HTML, or HyperText Markup Language, is the standard markup language for texts intended to be viewed on a web browser. (en.wikipedia.org)

Context Diagram. A Level-0 Data Flow Diagram is another name for it. It is a frequent tool used by Business Analysts to comprehend the context of an entity under investigation. The Context Diagram is most commonly used to describe a system being constructed or modified as part of a project, but it can also be used to describe other things. (www.Bawiki.com)

Data Flow Diagram. Any process or system's information flow is mapped out using DFD. It shows data inputs, outputs, storage sites, and paths between each destination using predetermined symbols such as rectangles, circles, arrows, and short text labels. (www.lucidchart.com)

Information System. It's a collection of interconnected components for gathering, storing, and processing data and delivering information, knowledge, and digital products. (www.britannica.com)

JavaScript. It's a popular programming language for web development. Netscape created it to allow users to add dynamic and interactive features to their websites. (www.techterms.com)

MongoDB. It's a NoSQL database that's object-oriented, simple, dynamic, and scalable. The model is based on NoSQL document storage. Instead of storing the data in the columns and rows of a standard relational database, the data objects are saved as separate documents within a collection. The MongoDB language created a data store with high performance, high availability, and independent scaling. MongoDB stores data in JSON or BSON documents. (www.dzone.com)

Network. A network is defined in information technology as connecting at least two computer systems via a cable or wireless connection. The most basic network consists of two computers connected by a thread, each with access to the data of the other and the ability to share resources. (www.ionos.com)

Node JS. It's a cross-platform runtime environment for developing open-source server-side and networking programs. Node.js apps are written in JavaScript and run on OS X, Microsoft Windows, and Linux using the Node.js runtime. (www.tutorialspoint.com)

ReactJS. React (also known as React.js or ReactJS) is a front-end JavaScript library for creating user interfaces or UI components that are free and open-source. React can be used as a foundation for developing single-page or mobile apps. (en.wikipedia.org)

Software. Computer instructions that teach it what to do. The entire set of programs, operations, and routines related to a computer system's function is software. A set of instructions for directing the hardware of a computer to do a task. (www.britannica.com)

Wi-Fi. It's a wireless networking technique that employs radio waves to give high-speed Internet access over a long distance. (www.webopedia.com)

Related Studies

Web Based PhD Thesis Management Information System for Tripoli Faculty of Computer Technology in Libya. (WBPTMS) (2011).

According to the study “Web Based PhD Thesis Management Information System for Tripoli Faculty of Computer Technology in Libya.” Education should take advantage of advances in information communication technology in industrialized countries to improve learning and management practices. Students should be able to learn whenever, wherever, and at their leisure. Administration and lecture, on the other hand, should be able to manage their work more efficiently and adaptably. The purpose of this study is to develop a web-based PhD thesis management information system that will automatically manage PhD students' thesis information at the Faculty of Technology in Tripoli. Due to its efficacy in facilitating and improving the supervision and management of thesis's and project papers, the web-based PhD's thesis management information system is frequently employed in educational organizations (Source: Salaheddin. S. Mohamed Sayeh, 2011).

Design and Implementation of Graduation Thesis Management System (2017).

According to the study “Design and Implementation of Graduation Thesis Management System”. The use of information technology has become ingrained in all parts of social life and employment, particularly for higher education institutions that cultivate students in science and technology. The application of IT technology in various activities and projects for innovative management, optimum

management can make them serve teaching, serve teachers and students, and serve society, which has now become the mainstream application. The "graduation thesis" is a platform for testing students' comprehensive talents and comprehensive quality. It is a significant aspect of vocational education work. At the same time, graduation thesis management must deal with a large number of professors and students, as well as a variety of majors, disciplines, internship areas, internship positions, and other aspects, all of which complicate thesis management. To this purpose, the following parts of work will be carried out in terms of the administration of graduation theses, in order to improve and enhance the quality of education. This research examines the current state of graduation thesis management systems in recent years and specifies the established system's core functions and overall structure. (Source: Feng Xiaoping et al., 2017).

Research of Key Technologies in Development in Thesis Management System (2012).

According to the study "Research of Key Technologies in Development in Thesis Management System". Design and implement a Thesis Management System using ASP.NET2.0 and B / S mode to manage a university thesis in a comprehensive and efficient manner. The control of user access rights, the use of master pages, the production of Word format documents, and the editing and publishing of online material are all covered. In the Web application system, these technologies offer some flexibility. The adoption of these major technologies considerably increased the development efficiency and practicality of the university

thesis management system, according to the findings of development and operation. (Source: Huadong Wang of University Zhoukou China, 2012).

UMP Thesis Management System (2011).

According to the study “UMP Thesis Management System”. The University of Malaysia Pahang created an Online Thesis Management System, which is a web-based management system with features such as data storage, thesis viewing, thesis marking, and thesis commenting and so on. The decision to develop the system utilizing online management systems was made because the internet is now widely used and has become a way of life. Furthermore, UMP offers extensive internet coverage throughout the university, allowing students and lecturers to access the systems from anywhere on campus at any time. The aim is to use Software Development Life Cycles (SDLC) to create the system. SDLC comprises five stages: planning, analysis, design, implementation, and maintenance. PUP and HTML are used in the system. MySQL will be used as the data storage medium. As a result, the systems will operate smoothly, making it easier for staff to organize thesis and students to submit references. (Source: Mohammad Amir, A. Rahman of University Malaysia Pahang, 2011).

Research of Academic Thesis Management System Based on Web (2011).

According to the study “Research of Academic Thesis Management System Based on Web”. Academic thesis has a certain amount of uniqueness and academic significance because it demonstrates a student's capacity to analyze

and solve problems independently. The author designed this academic thesis management system, which has the core of thesis searching and integrates the functions of user login, subscription, thesis recommendation, reviewing, identification, submission, thesis collection, and background management, as a result of a lack of resources and weak regulatory and other shortfalls that exist among existing thesis systems. To some extent, the system's architecture improves resource management and utilization. (Source: Li Wen, 2011).

E-thesis Management System (2011).

According to the study “E-thesis Management System”. The proposed method creates an effective management system for PSM/PTA theses in the faculty's collection. The goal of ETMS is to provide a prototype of searching the thesis for students in order to discover an appropriate title for a previous semester's PSM/PTA project. It also provides information and availability of the thesis by converting the process into a computerized system: The interface design for the system was created with Adobe Dreamweaver CS4 and the Spiral Life Cycle Model as the technique. The database is built with MySQL, and the thesis data is stored there. This system is a web-based program that students, lecturers, and coordinators will use. Because it controls the thesis easier and faster, the system is projected to perform better than the traditional system. This initiative will help to improve thesis management in the future. It also seeks to address the issue of missing thesis data as well as the need for quick recovery of thesis data. (Source: Sadri Nursyazwa of University Malaysia Pahang, 2011).

Towards a RBAC Workflow Model for Thesis Management (2015)

According to the study “Towards a RBAC Workflow Model for Thesis Management”. In the information era, the traditional and manual method of thesis administration is progressively meeting the requirement for thesis supervision and administrative management. A role-based access control (RBAC) Workflow model for thesis management was developed at Southwest University of China to improve the traditional manual undergraduate thesis writing, guidance, and administrative management process. Time-triggered and task-based principles are used in the RBAC workflow architecture to activate role authorization to users and permission authorisation to roles. The thesis management system based on the RBAC Workflow paradigm is now available, and it is being tested in the field. The comparison findings of this system may effectively minimize the workload of undergraduate thesis work, monitor thesis writing and guidance, and significantly increase the level of informatization of undergraduate thesis labor. (Source: Kui Liu, Zhurong Zhou, Qianguo Chen, Xiaoli Yang 2015).

Chapter III

METHODOLOGY

This chapter provides the design of the system illustrated using Context Diagram. At the same time, Project Design will be described using Data Flow Diagram and Project Development using Scrum Framework. System Operation and Testing Procedure, as well as Project Evaluation, will also be discussed.

Project Design

The study entitled “Development of Research Information System for School of Computer Studies in City College of Tagaytay” was created to provide a quick and easy way to store and access research. It will be developed using JavaScript, Node JS, ReactJS, MongoDB, Bootstrap, CSS, and MUI. The system is intended for (3) three users: SCS Research Coordinator (System Administrator), MIS Officer, and SCS Students.

The proponents used Context Diagram to illustrate the entire system process and Data Flow Diagram for each user's particular operation within the system (Yourdon and Coad).

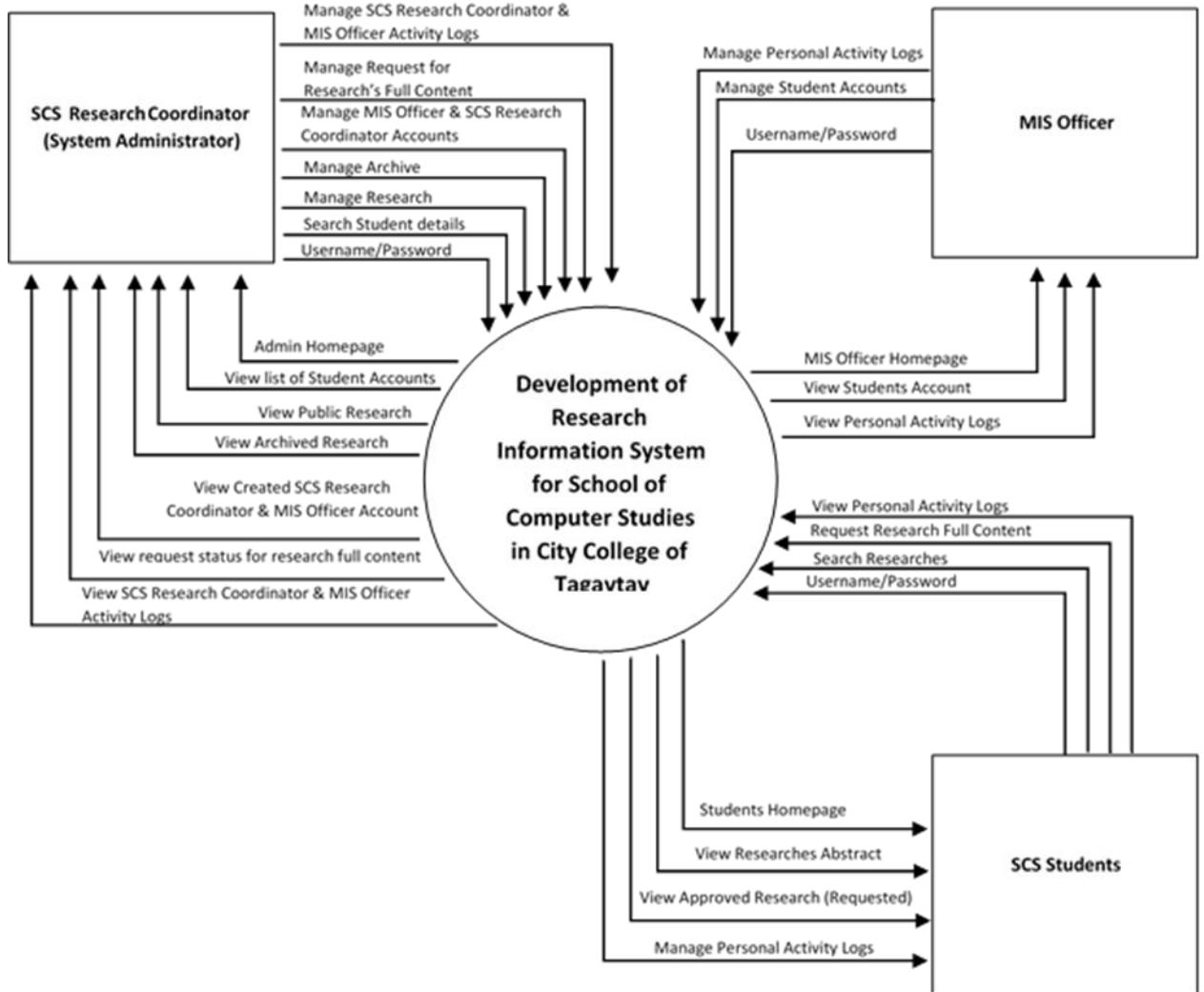


Figure 3. Context Diagram of Development of Research Information System for School of Computer Studies in City College of Tagaytay

Figure 3 illustrates the process of the “Development of Research Information System for School of Computer Studies in City College of Tagaytay” from the SCS Research Coordinator (System Administrator), MIS Officer, and the SCS Student. SCS Research Coordinator (System Administrator) is responsible for creating and managing the SCS Research Coordinator (System Administrator) and MIS Officer’s account. He is also in charge of managing research on the

system including the list of research to be shared publicly and research added to the archive/hidden research. He is also responsible for declining and approving requests of SCS Students to obtain full access to research content and responsible for deciding when to remove SCS Student's access to the full content of research. The SCS Research Coordinator (System Administrator) can also manage personal accounts, including their activity log. The Research Coordinator can also view the current MIS Officer Activity Log. The MIS Officer is responsible for creating and managing SCS Student accounts. They also manage the request made by SCS Student regarding password reset. The MIS Officer also manage their account and his activity Log. Lastly, SCS Students can use search filters and view the abstract of the research that was made public by the SCS Research Coordinator (System Administrator). SCS students can request to view the full content of the research, and once the request has been accepted by the SCS Research Coordinator (System Administrator), they will be allowed to read the full content of the research. Each SCS Student can manage their activity log and send a request to the MIS Officer to reset their password.

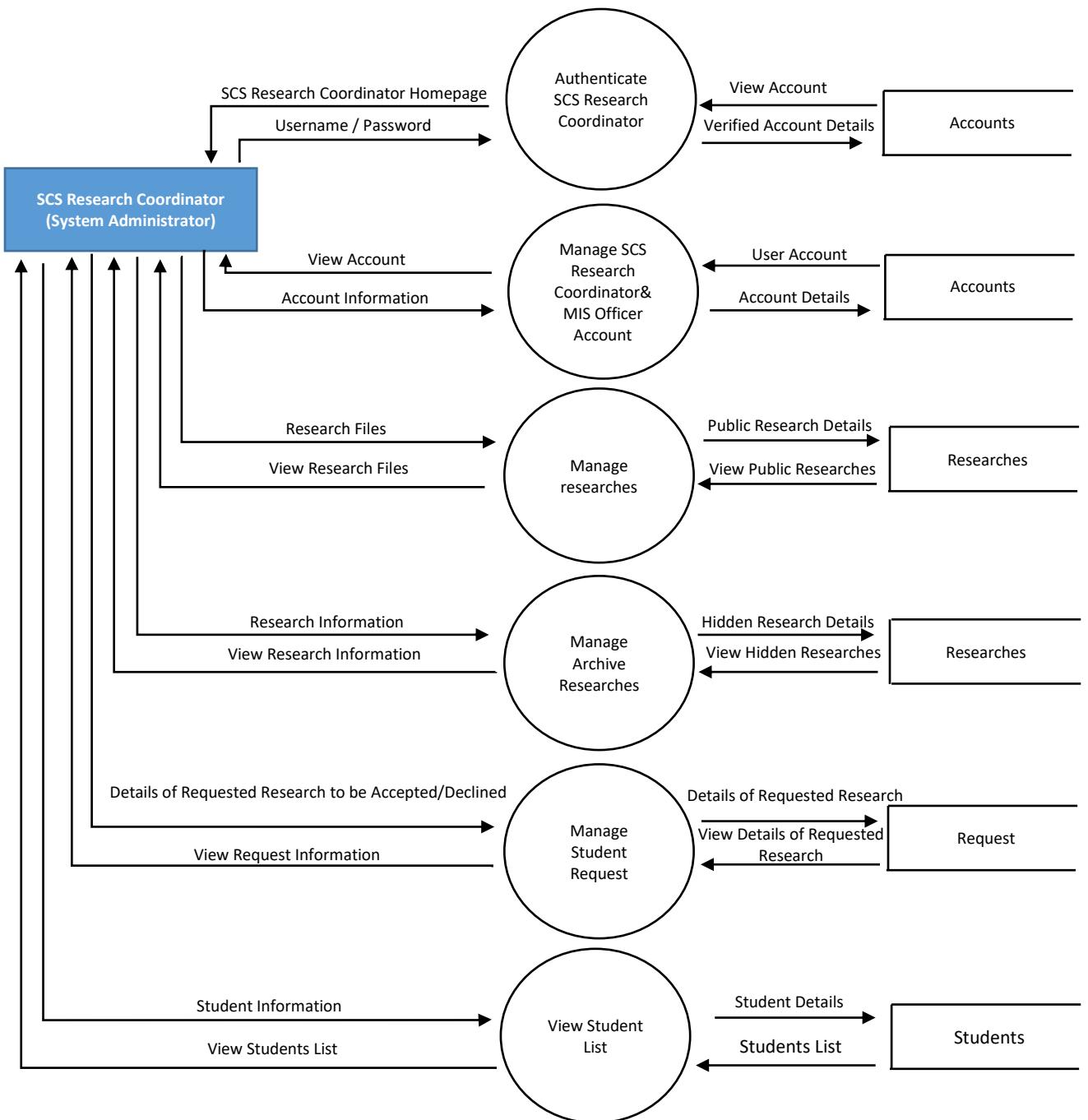


Figure 4. Data flow diagram of SCS Research Coordinator (System Administrator) for the Development of Research Information System for School of Computer Studies in City College of Tagaytay

As shown in Figure 4, SCS Research Coordinator (System Administrator) manages the research (view list of research, upload research, hide or publish research from the archive and accept or decline each request made by SCS

Student to gain full access to particular research, they also decide when to remove student access to full content). Research files would be saved in the database table named researches, filtered in two ways (public research and hidden/archived research). The public research is viewable by the SCS Student, while the hidden research is viewable only by the SCS Research Coordinator (System Administrator). Request to access the full content of research made by SCS Students would be saved in the database table named Request. The SCS Research Coordinator (System Administrator) can manage (register new MIS Officer account, view list of MIS Officers account and update MIS Officers account status) as well as manage (register new SCS Research Coordinator (System Administrator), view list of SCS Research Coordinator (System Administrator) and update SCS Research Coordinator (System Administrator) account status) that would be saved in the database table named Accounts. In addition, the SCS Research Coordinator (System Administrator) could also view the student's list from the system coming from the database table named Students.

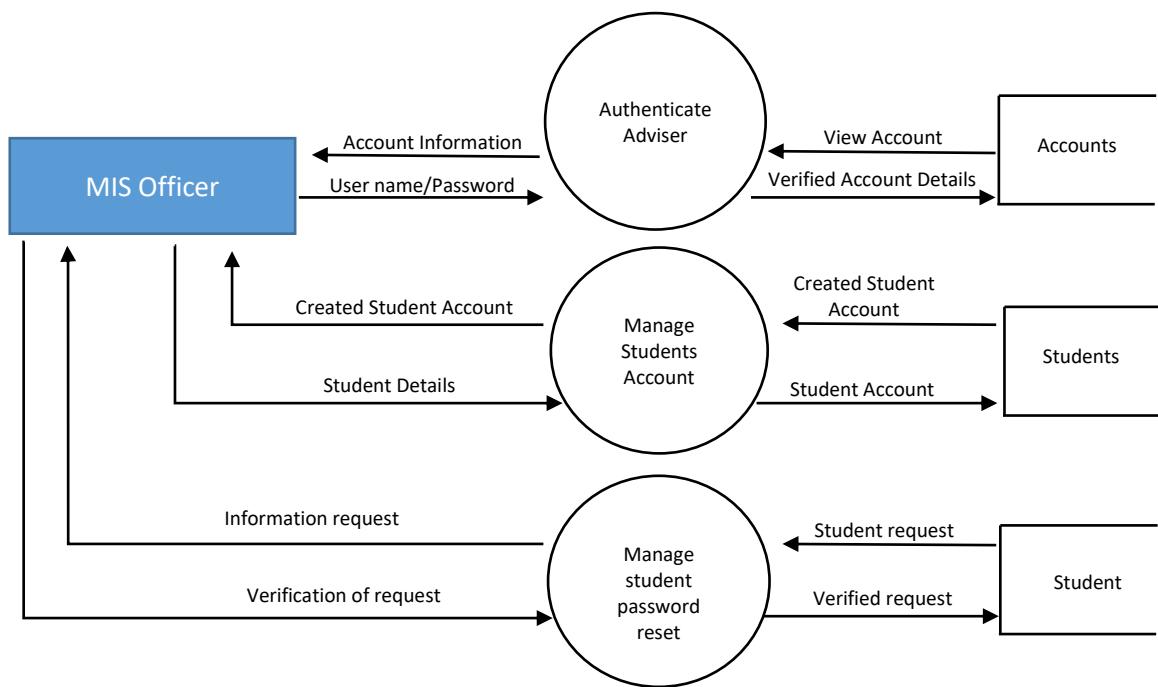


Figure 5. Data flow diagram of MIS officer for the Development of Research Information System for School of Computer Studies in City College of Tagaytay

As shown in figure 5, MIS Officer needs to input their username and password to access their account on the system and be able to manage student account (register student account, view list of students, update student account status), which will be saved on the database table named students. The MIS Officer also manages the request made by SCS Students regarding the request for a password reset that will be saved in table named Student.

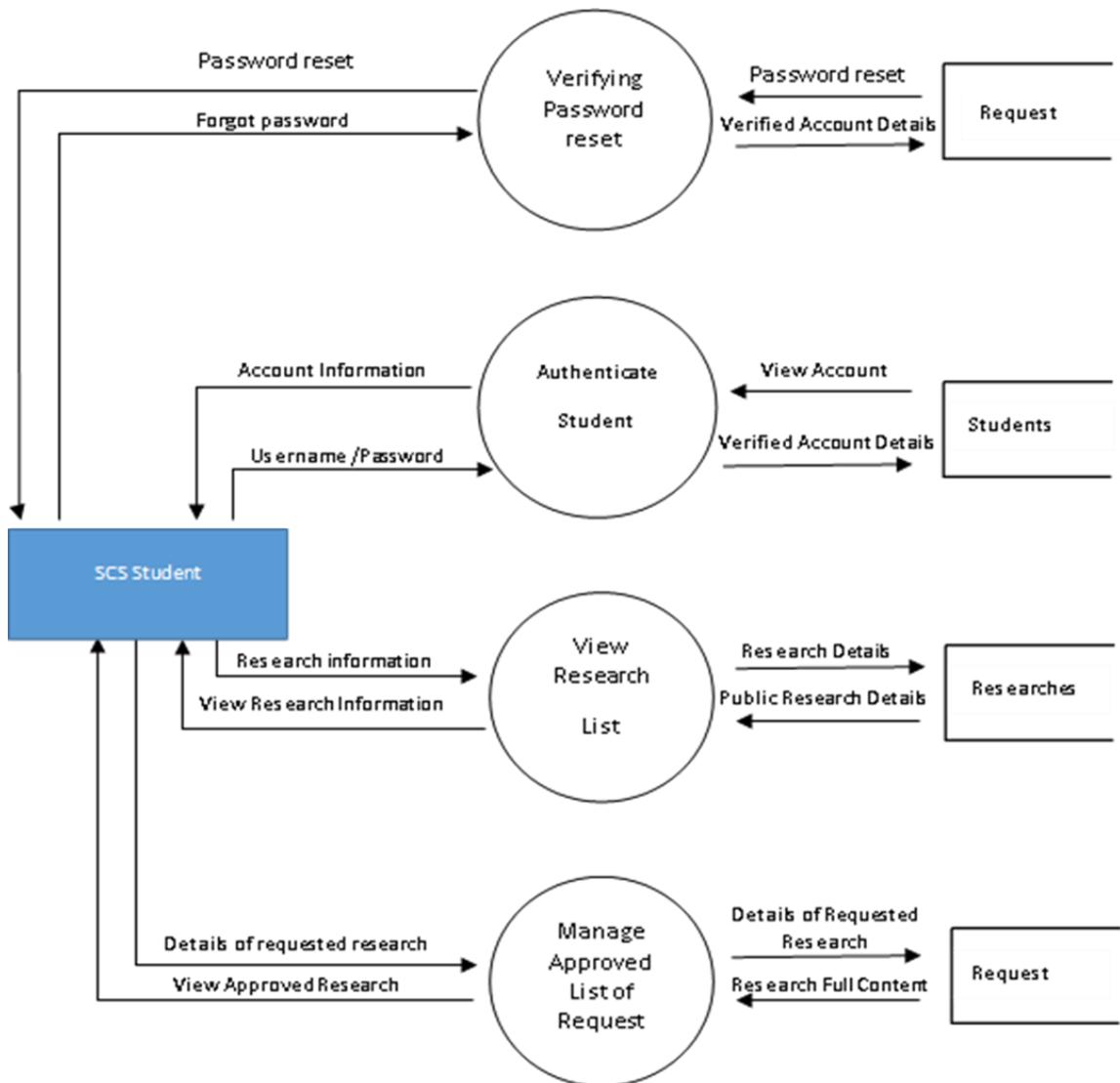


Figure 6. Data flow diagram of SCS Student for the Development of Research Information System for School of Computer Studies of City College of Tagaytay

As shown in figure 6, SCS Students need to input their username and password to be able to access their account and view the List of Research (Abstract) provided from the database table named researches, as well as view the full content of the requested research approved by the Research Coordinator (System Administrator). SCS Students also request a password reset, which will be saved in the table named Request.

Project Development

The project will be developed using the Scrum Framework. This methodology will serve as a guide for creating the proposed study. Scrum is an agile methodology for managing a process like software development that involves both incremental and iterative techniques. It focuses specifically on task management in team-based development.

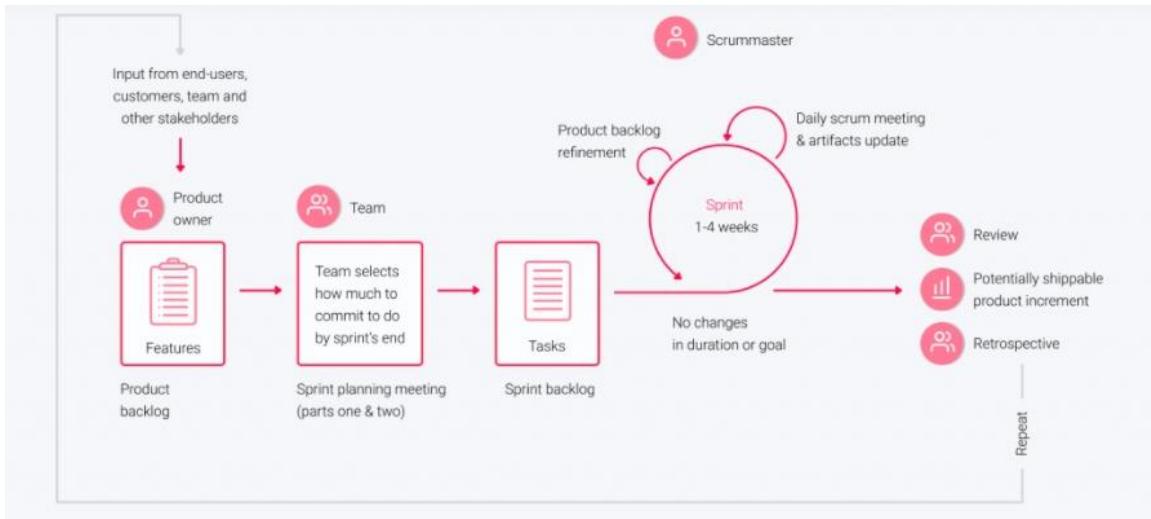


Figure 7. Scrum Framework by (Gurendo, 2020).

This methodology consists of five (5) phases which were discussed below:

First Phase: Product Backlog

The proponents conducted an informal interview with the SCS Research Coordinator in this phase. They gathered all of the requirements needed, functionalities, and technical characteristics of the system that will be developed. The programming language, network connection, and database to be used are chosen from this phase. The proponents also researched and gathered information on the proposed system entitled "Development of Research Information System for School of Computer Studies in City College of Tagaytay." See Appendix F (Interview Report)

Second Phase: Sprint Planning Meeting

In this phase, the proponents listed and examined all of the relevant requirements obtained from the SCS Research Coordinator to specify what needs to be produced during the first sprint by selecting tasks from the Product Backlog. This aid the proponents in thoroughly understanding the task ahead in each sprint and better managing the product backlog.

Third Phase: Daily Scrum Meeting

The Scrum Master (leader of the proponents) conducts daily meetings to plan for the team and organize the operation every 24 hours. This is to ensure that the sprint's target goal is met.

This phase involves coding modules by what was negotiated during the Daily Scrum Meeting. This is where the proponents put their programming abilities to work. JavaScript, Node JS, ReactJS, MongoDB, Bootstrap, CSS, and MUI were used to create each module.

Fourth Phase: Sprint Review

In this phase, the proponents organized a meeting with the client for a sprint review after completing the first sprint in 2 to 4 weeks.

A module was submitted to the SCS Research Coordinator at the end of each sprint, who will have to check for errors in the behaviors and structures of the module. Functions and features were tested to see if they are working correctly and if errors were found, feedbacks were made necessary for correction. The SCS Research Coordinator's feedback were used to plan the next Sprint. With each sprint, the proponents created a new system version with more value.

Fifth Phase: Retrospective Meeting

After the sprint review and before the next sprint planning, the proponents conducted a Retrospective Meeting to identify the key issues and area of improvement to reflect on what happened in the iteration and identifies actions such as what went well or what went poorly for improvement on the next Sprint. After this phase, the proponents repeated the process from the planning phase until a fully functional system was created in the given time to finish it. Different testing procedures were applied to verify if the software application requirements were met. The system was evaluated according to the standard of ISO9126 that involves checking non-functional parameters like security, usability, performance, etc.

System Operation and Testing Procedure

System Operation

The “Development of Research Information System for School of Computer Studies in City College of Tagaytay” was operated with various levels of access, including SCS Research Coordinators (System Administrator), MIS Officer, and SCS Student.

SCS Research Coordinator (System Administrator) needs to log in to the system first. On the SCS Research Coordinators (System Administrator) home page, the managing of research (viewing the list of research, uploading research, archiving and publishing research from the archived list, approving and declining requests for the full content of research) is done. The managing of the MIS Officer

account (registering new MIS Officer, viewing a list of MIS Officer accounts, updating MIS Officer account status, viewing current MIS Officer Activity Log, and resetting the password of MIS Officer upon request), as well as managing his account (registering new SCS Research Coordinator account, viewing list of all SCS Research Coordinator account, updating SCS Research Coordinator account status, managing personal and archived activity log) is also done. Once finished, the SCS Research Coordinator can log out from the system. All changes made to the system by the SCS Research Coordinator will all be recorded on the activity log.

MIS Officer needs to input their login credentials to access the system while connected to the School Wi-Fi. Once the MIS Officer logs in from the system, they can manage the SCS Student account (register student account, view list of students, update student account status) and manage SCS Student requests for a password reset. Once done, the MIS Officer can log out from the system. Activities made on the system by the MIS Officer will all be recorded on the activity log.

SCS Student needs to input their login credentials to access the system while connected to the School Wi-Fi. Once the SCS Students access the system, they can view the List of Research Abstracts and request to view the full content of particular research. A student can view the requested research once approved by the Research Coordinator (System Administrator) and after agreeing on the Strict Policy. Students are not permitted to download the file as the system only allows the SCS Student to read the research content. SCS Students can only

change their passwords but cannot change their profile information. SCS students can request a password reset in case of forgetting a password. Once done, they can log out from the system. All activities made by a particular student on the system will be recorded on the activity log.

Testing Procedure

Testing is used to find flaws in the behaviors and structures of modules, programs, or the entire system plan. The proponents use the following sort of testing:

Unit Testing. The Proponents used this test to check the functionality of the various units of source code to determine if they were working correctly.

Integration Testing. The proponents validate the interactions of every system's modules to check if it functions together correctly.

Performance Testing. The proponents determine the process of speed, responsiveness, and stability of the system under a network and how it performs using different browsers.

Acceptance testing. The system was examined to see if it satisfies the user requirements and performs as expected.

Project Evaluation

In the preliminary evaluation, the proponents reviewed all the necessary factors needed to complete the system based on the system requirements.

Results were analyzed to determine if the preferred output were achieved through the given input. An online evaluation form was given to the respondents for the final evaluation. The computation of the number of respondents was based on the Raosoft sample size calculator. The comments, suggestions, and recommendations gathered were used to improve and enhance the system. The study used the ISO 9126 Evaluation Criteria for Software. The statistical scale interpret the evaluation results with a scale of 1.00 to 5.00, with 1.00 being the lowest and 5.00 being the highest.

Table 1 shows the numerical rating and its equivalent interpretation to scale the result of the project evaluation.

Table 1. System Evaluation Sheet Numerical and Descriptive Scale

NUMERICAL RATING	INTERPRETATION	DEFINITION
4.21 - 5.00	Excellent	The system fully meets and far exceeds the most expectations.
3.41 - 4.20	Very Good	The system fully meets all and exceeds several expectations.
2.61 - 3.40	Good	The system fully meets all expectations.
1.81 - 2.60	Fair	The system does not fully meet all expectations.
1.00 - 1.80	Poor	The system fails to meet expectation to a significant degree in several areas

The gathered data will be computed by using Mean Range Formula to achieve the proposed system met the Software Factor Standard for Acceptance.

Chapter IV

RESULTS AND DISCUSSION

This chapter discussed and presented the results and discussions of the Project Description, Screen Hierarchy, and Project Evaluation of the Study.

Project Description

The study entitled "Development of Research Information System for School of Computer Studies in City College of Tagaytay" aims to help the City College of Tagaytay's SCS Research Coordinator to manage research manuscripts and provide a secure, web-based system that will serve as virtual storage to ease the manual process of collecting and storing of research manuscripts. This system will also benefit SCS students because they will no longer have to worry about manually searching the SCS Research Cabinet for the research manuscripts they need, as looking for particular research will be a simple process.

The study was intended for three (3) types of users: SCS Research Coordinator (System Administrator), MIS Officer, and SCS Students. The SCS Research Coordinator (System Administrator) is responsible for creating and managing the SCS Research Coordinator (System Administrator) and MIS Officer's accounts. He is also in charge of managing research on the system, including the list of research to be shared publicly and researches to be added to the archive. He is also responsible for declining and approving requests made by SCS students to view the full content of research, and he also decides when to

remove access of SCS Students to complete the content. The MIS Officer is responsible for creating and managing the SCS Students account. Lastly, SCS Students can view the abstract of the research that was made public by the SCS Research Coordinator (System Administrator) and make a request to view the full content of the research. Once the request has been accepted by the SCS Research Coordinator (System Administrator), they will be allowed to read the full content of the research.

The Scrum Framework was the methodology applied by the proponents in developing the system. This serves as a step-by-step guide in creating the system.

Product backlog, the proponents conducted a study about the establishment of their project and made a product backlog that serves as the basis for the system's flow. The proponents also conducted an interview to acquire all relevant information on the manual process of managing research manuscripts at the School of Computer Studies in City College of Tagaytay. The proponents identified the scope of the problem and determine the possible solution. The proponents also researched to obtain more information that can be used to develop the Research Information System for the School of Computer Studies at City College of Tagaytay.

Sprint Planning Meeting, from the gathered and analyzed information in the Product Backlog, the proponents were able to defined, analyzed, and visualized the project's scope, access levels, and modules (such as Account Management Module, Record Management Module, Research Management Module,

Transaction Management Module, and Activity Log Module) and were able to make a layout of the system design with all its contents (pages and buttons) that will serve as a guide in the development of the system interface/flow.

Daily Scrum Meeting, the proponents worked on the sprint according to the planned Sprint Planning Meeting. The proponents designed the system using JavaScript, Node JS, ReactJS, MongoDB, Bootstrap, CSS, and MUI.

Sprint Review, the proponents, presented the system to the SCS Research Coordinator for review to test its design, content, and if it performs according to how it was planned and detect potential problems. The proponents received feedback from the SCS Research Coordinator about how the system operates and any inconsistencies found so that the proponents could fix all the faults and ensure that issues wouldn't be encountered in the future. In this process, the feedback may lead to new changes and adjustments that may lead to creating a new product backlog.

Retrospective Meeting, Proponents hold a Retrospective Meeting to reflect on what happened in the iteration and identify what went well or poorly to improve the next Sprint. This helped the proponents to identify the significant issues and opportunities for improvement. From the first through the fifth phase, the proponents repeat the iteration process until they have a fully functional system. Once the proponents obtain a fully functional system, the system undergoes a series of testing to see if it functions according to its objective. The respondents also evaluated the system to determine whether the system complies with ISO 9126 requirements. It received an overall mean score of "4.28," regarded as

“Excellent.” This indicates that the system fully meets and far exceeds the most expectations, is free from error, and can be recommended for the organization to be used.

Project Structure

The research would be carried out on a server connected to the school's internet connection. The data will be saved on the server locally. Manually storing data on the internet will be done utilizing Github.com and other virtual storage sites like Google Drive. The website will only function on a local connection and will only be accessible by connecting to the school's Wi-Fi and typing the specified URL into their preferred browser. The URL will be linked to the server's IP address, and anyone with a school Wi-Fi connection will be able to view the site without requiring LAN connections.

The SCS Research Coordinator (System Administrator), the MIS officer, and the SCS students are the three users of the system. The SCS research coordinator (system administrator) is responsible for most website management, particularly website maintenance and updates. The SCS research coordinator (system administrator) can change the website's UI and functionality. He is also in charge of determining which researches are visible to students and which researches are hidden from the general public. The SCS research coordinator (system administrator) is also in charge of the MIS officer's accounts and permits students to view the full content of specific research. The MIS officer's responsibility, on the other hand, is to maintain student accounts, including

deactivating student accounts, reactivating accounts of returning students, updating their course, year level, and section, registering new students, and resetting a student's password based on student requests. And SCS students can browse and view research made public by the SCS research coordinator (system administrator). Although they can only see the abstract page at first, they can send a request to the SCS research coordinator (system administrator) for permission to see the full content of their chosen research. The research materials are not to be downloaded or copied by the student.

Screen Hierarchy



Figure 8. User Login Form

Figure 8. Shows the login page for all the end-users of the system. It requires a username and password. The sign-in button will validate if the username and the password are provided and once correct will direct the user to their respective panel.

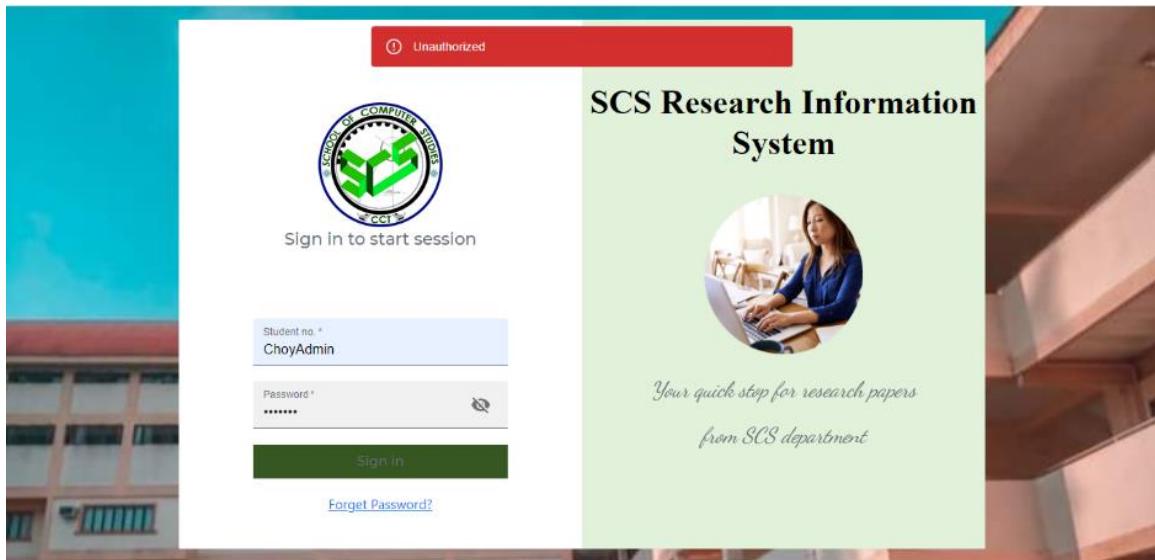


Figure 9. Wrong Input of Username or Password

Figure 9. Show the error messages that will pop up if the user has input an incorrect login credential

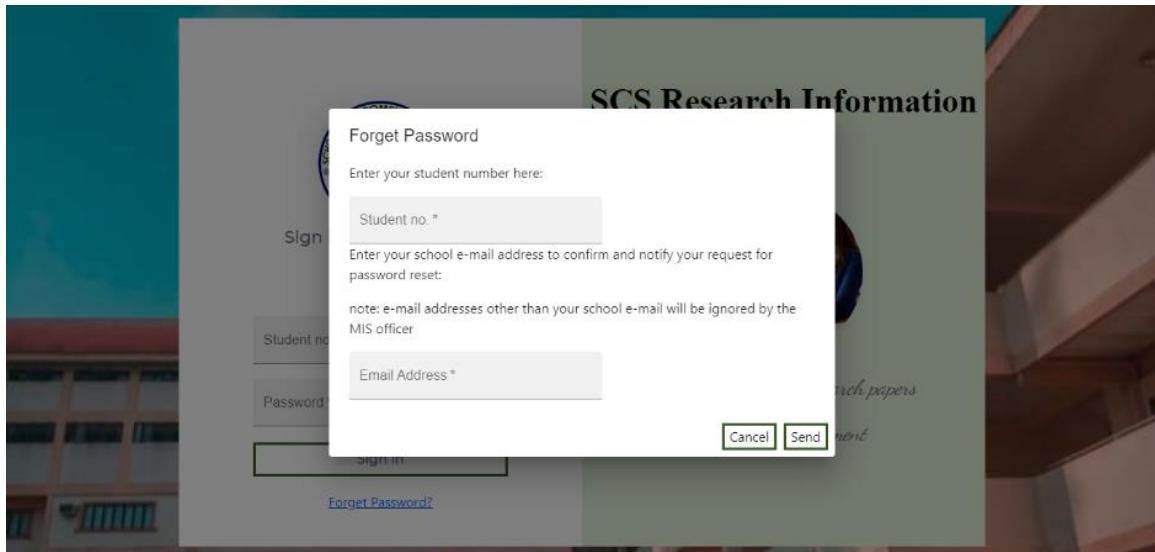


Figure 10. Forget Password Form

Figure 10. Show the Forget Password form for SCS Students. SCS Students who wish to reset their password must input their Student Number and Email Address. The send button allows confirming the requests for a password reset.

SCS Research Coordinator (System Administrator)

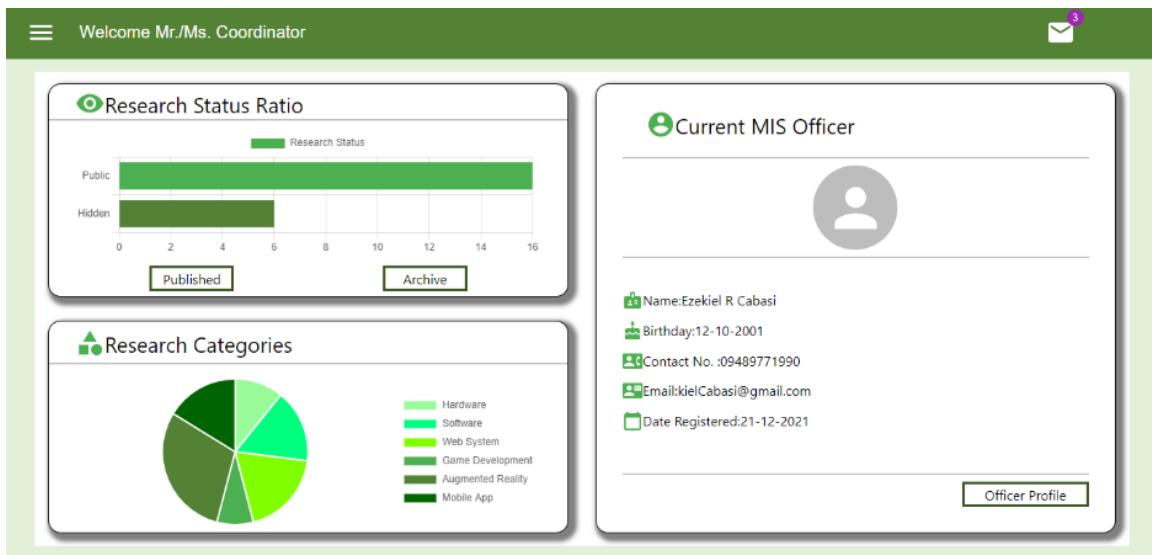
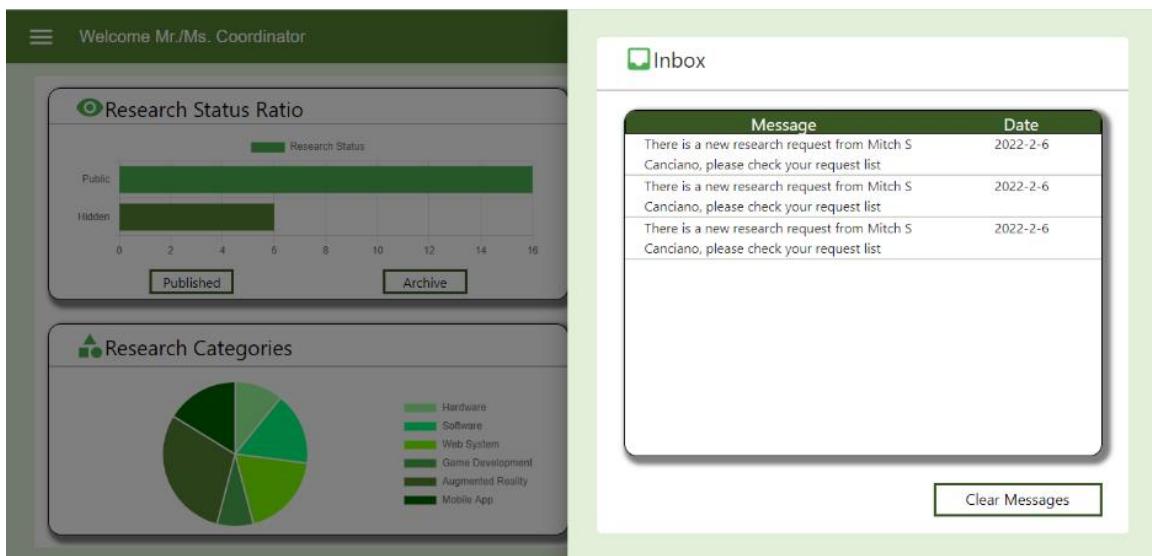


Figure 11. SCS Research Coordinator (System Administrator) Dashboard

Figure 11. Shows the SCS Research Coordinator (System Administrator) dashboard which includes information about the current active MIS Officer, a graph showing the research status ratio and research categories, and a menu for



managing research and student request. A notification Box can also be found on the dashboard.

Figure 12. SCS Research Coordinator (System Administrator) Notification Inbox

Figure 12. Shows the SCS Research Coordinator (System Administrator) Notification Inbox which includes showing notification about SCS Student Request to view the full content of a research file.

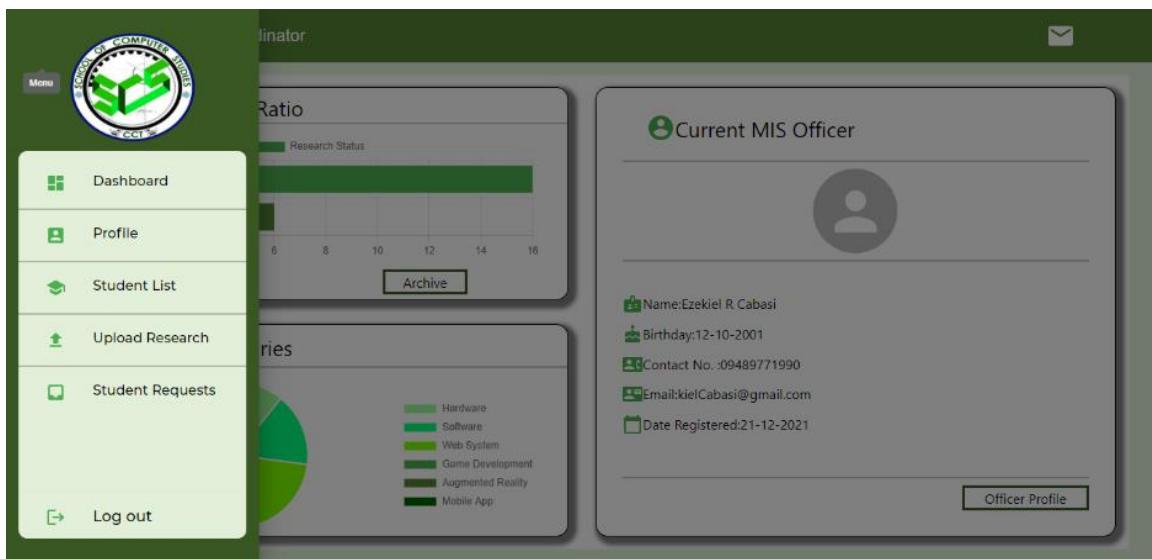


Figure 13. SCS Research Coordinator (System Administrator) Menu

Figure 13. Shows the SCS Research Coordinator (System Administrator) Menu which includes different options such as “Dashboard” –which allows to go back to the Research Coordinator or to display the dashboard, the “Profile” -which allows viewing profile information, the “Student list”- to view those Active SCS Student on the System, the “Upload research” to add new research on the system and “Log out” to exit from the system.

The screenshot shows a software application window titled "Welcome Mr./Ms. Coordinator". At the top, there is a search bar with the placeholder "Enter Research Title" and some navigation icons. Below the header, a sub-menu is open with the title "Published Researches". This sub-menu contains a table with the following data:

<input type="checkbox"/> Select All	Title	ResearchCategories	Year	<input type="button"/> View Details
<input type="checkbox"/>	Research 1	Hardware, Software	2021	<input type="button"/>
<input type="checkbox"/>	Research 2	Hardware, Web System	2021	<input type="button"/>
<input type="checkbox"/>	Research3	Software, Game Dev	2009	<input type="button"/>
<input type="checkbox"/>	Research 4	Software, Augmented Reality	2010	<input type="button"/>
<input type="checkbox"/>	Research 5	Mobile App, Game Dev	2008	<input type="button"/>
<input type="checkbox"/>	Research 6	Web System, Augmented Reality	2001	<input type="button"/>
<input type="checkbox"/>	Research 7	Web System, Game Dev	2004	<input type="button"/>
<input type="checkbox"/>	Research 12	Hardware, Mobile App	2006	<input type="button"/>
<input type="checkbox"/>	Research 13	Software, Augmented Reality	2007	<input type="button"/>
<input type="checkbox"/>	Research 14	Mobile App, Augmented Reality	2007	<input type="button"/>
<input type="checkbox"/>	Research 17	Augmented Reality, Hardware	2010	<input type="button"/>
... Research 20				

A "Hide" button is located in the top right corner of the sub-menu.

Figure 14. SCS Research Coordinator (System Administrator)
Published research

Figure 14. Shows the list of all published research (all research abstracts that could be seen by SCS Students). The SCS Research Coordinator can manually select or select all research from the Published Research and hide it on the Archive Research. The Research Coordinator can also use the search bar and filter to narrow down the results of searches. He/she can also view details of the research such as the Research category, the year it was published, and the authors.

The screenshot shows the same software application window as Figure 14. A sub-menu is open with the title "Hidden Researches". This sub-menu contains a table with the following data:

<input type="checkbox"/> Select All	Title	ResearchCategories	Year	<input type="button"/> Publish
<input type="checkbox"/>	Research 8	Game Dev, Hardware	2005	<input type="button"/>
<input type="checkbox"/>	Research 9	Game Dev, Augmented Reality	2000	<input type="button"/>
<input type="checkbox"/>	Research 10	Software, Web System	2008	<input type="button"/>
<input type="checkbox"/>	Research 11	Software, Mobile App	2003	<input type="button"/>
<input type="checkbox"/>	Research 15	Hardware, Augmented Reality	2004	<input type="button"/>
<input type="checkbox"/>	Research 16	Augmented Reality, Game Dev	2009	<input type="button"/>

A "Publish" button is located in the top right corner of the sub-menu.

Figure 15. Research Coordinator (System Administrator)
Archived Research

Figure 15. Shows the list of all hidden research. The SCS Research Coordinator can manually select or select all the research from the Hidden Research and move it to the Published research to allow the SCS Student to view it. The Research Coordinator can also use the search bar and filter to narrow down the results of searches. He/she can also view details of the research such as the year it was published and the author.

The screenshot shows a web-based application for managing MIS Officers. At the top, a green header bar displays the text "Welcome Mr./Ms. Coordinator". Below the header, there are two main sections. On the left, a card titled "Current MIS Officer" contains a placeholder profile picture and a list of officer details: Name: Ezekiel R Cabasi, Birthday: 12-10-2001, Contact No.: 09489771990, Email Address: kielCabasi@gmail.com, and Date Registered: 21-12-2021. On the right, a larger section titled "Activity Logs" lists several status updates with their dates: You updated 1801011's status to inactive (2022-2-3), You updated 1801024's status to inactive (2022-2-3), You updated 1801037's status to inactive (2022-2-3), You updated 1801036's status to inactive (2022-2-3), You updated 1801035's status to inactive (2022-2-3), You updated 1801034's status to inactive (2022-2-3), You updated 1370713's status to active (2022-1-25), You updated 117013's status to active (2022-1-25), and You updated 1234's status to active (2022-1-25). A "See All" button is located at the bottom of this log list. At the very bottom of the page, there are two buttons: "New Officer" and "Change Officer".

Figure 16. SCS Research Coordinator (System Administrator)
MIS Officer Management

Figure 16. Shows the MIS Officer Management. SCS Research Coordinator can view the profile information and activity logs of the current MIS Officer, can register a new officer, or assign a new officer from the list of former MIS Officer on the deactivated MIS Officer.

Register New Officer

Choose File No file chosen

Username:	Birth Date
Password:	Contact No.:
First Name:	Email Address:
Middle Initial:	Date Registered:
Last Name:	Cancel
Name Extension:	Register

Figure 17. SCS Research Coordinator (System Administrator) Register new Officer

Figure 17. Shows the details that are needed to be filled up upon registering a new MIS Officer

Deactivated Officer's Account

Username	Password	Officer's Name	Birthday	Contact No.	Email	Day
ChoyMIS	mis123	Mitch S Canciano	27-10-1999	09772741036	mitchsaudenio@gmail.com	15-12-2021
MarckyMIS	marcky123	Marcky S Canciano	15-8-2006	09489771990	marcky123@gmail.com	20-12-2021
MISMarcky	macky123	Marcky S Canciano	15-8-2006	09489771990	mackyCanciano@gmail.com	6-1-2022
Choy27	choy123	Choy S Canciano	27-10-1999	09772741036	choykun27@gmail.com	6-1-2022
MarckyOfficer	macky123	Marcky S Canciano	15-6-2006	09489771990	macky123@gmail.com	8-1-2022

Figure 18. Research Coordinator (System Administrator) Deactivated Officers Account

Figure 18. Shows the deactivated MIS Officer account. The Research Coordinator (System Administrator) can assign a new officer from the list of former MIS Officer on the deactivated MIS Officer Account

Figure 19. SCS Research Coordinator (System Administrator) Profile Management

Figure 19. Show the SCS Research Coordinator (System Administrator) Profile Management. The SCS Research Coordinator is allowed to edit details about their profile including the password. The Research Coordinator can also view personal activity logs. He/she can also register or assign a new Research coordinator (System Administrator) from the list of former Research Coordinator.

Activity	Date
Mitch S Canciano updated Research 16's status to archive	2022-2-6
Mitch S Canciano updated Research 15's status to archive	2022-2-6
Mitch S Canciano updated Research 11's status to archive	2022-2-6
Mitch S Canciano updated Research 10's status to archive	2022-2-6
Mitch S Canciano updated Research 9's status to archive	2022-2-6
Mitch S Canciano updated Research 8's status to archive	2022-2-6
Mitch S Canciano updated CCT Virtual Map's status to public	2022-1-25
Mitch S Canciano updated Research 11's status to public	2022-1-25
Mitch S Canciano updated Research 21's status to public	2022-1-25
Mitch S Canciano updated Research 19's status to public	2022-1-25
Mitch S Canciano updated Research 18's status to public	2022-1-25
Mitch S Canciano updated Research 17's status to public	2022-1-25
Mitch S Canciano updated Research 16's status to public	2022-1-25
Mitch S Canciano updated Research 15's status to public	2022-1-25
Mitch S Canciano updated Research 14's status to public	2022-1-25
Mitch S Canciano updated Research 13's status to public	2022-1-25

Figure 20. SCS Research Coordinator (System Administrator) Activity Logs

Figure 20. Shows the Activity Logs of the SCS Research Coordinator (System Administrator) where he/she can be able to view all activities applied to the system.

Username	Password	Coordinator's Name	Birthday	Contact No.	Email	Date
AdminChoy	admin2710	Choy S Canciano	29-11-2021	09772741036	mitchsaudenio@gmail.com	24-12-2021
AdminMitch	mitch123	Mitch S Canciano	27-10-1999	09489771990	choykun27@gmail.com	24-12-2021
Mitch2710	admin271099	Mitch S Canciano	27-10-1999	09489771990	choykun27@gmail.com	24-12-2021
AdminMarcky	macky123	Marcky S Canciano	15-8-2006	09489771990	marcky_canciano@gmail.com	5-1-2022
MackyCoor	macky123	Marcky S Canciano	15-8-2006	09489771990	macky123@gmail.com	8-1-2022
Macky123	admin123	Marcky S Canciano	15-8-2006	09489771990	macky123@gmail.com	21-1-2022
Choy123	admin234	Mitch S Canciano	27-10-1999	09772741034	mitchsaudenio@gmail.com	21-1-2022
asdf	asdf	Marcky S Canciano	15-8-2006	09489771990	macky123@gmail.com	21-1-2022

Figure 21. SCS Research Coordinator (System Administrator) Change Coordinator

Figure 21. Shows the deactivated SCS Research Coordinator (System Administrator) account. The SCS Research Coordinator (System Administrator) can assign a new SCS Research Coordinator from the list of former SCS Research Coordinator on the deactivated MIS Officer Account

Activity	Date
Mitch S Canciano updated CCT Virtual Map's status to public	2022-2-13
Mitch S Canciano updated Research 15's status to public	2022-2-13
Mitch S Canciano updated Research 21's status to public	2022-2-13
Mitch S Canciano updated Research 19's status to public	2022-2-13
Mitch S Canciano updated Research 18's status to public	2022-2-13
Mitch S Canciano updated Research 17's status to public	2022-2-13
Mitch S Canciano updated Research 16's status to public	2022-2-13
Mitch S Canciano updated Research 15's status to public	2022-2-13
Mitch S Canciano updated Research 14's status to public	2022-2-13
Mitch S Canciano updated Research 13's status to public	2022-2-13
Mitch S Canciano updated Research 12's status to public	2022-2-13
Mitch S Canciano updated Research 11's status to public	2022-2-13
Mitch S Canciano updated Research 10's status to public	2022-2-13
Mitch S Canciano updated Research 9's status to public	2022-2-13

Figure 22. SCS Research Coordinator (System Administrator) Archived Activity Log

Figure 22. Shows the overall Activity Log of SCS Research Coordinator (System Administrator) from the past until present. The SCS Research Coordinator can use search bar to search for the date of the exact activity

First Name:	Mitch
Middle Initial:	S
Last Name:	Canciano
Extention Name:	
Birthdate:	24-4-1970
Reg. Date:	24-4-1970
password	<input type="button" value="Save Changes"/>

Figure 23. SCS Research Coordinator (System Administrator) Edit Profile Details

Figure 23. Shows the details that are needed to be filled up upon editing SCS Research Coordinator (System Administrator) Profile Details

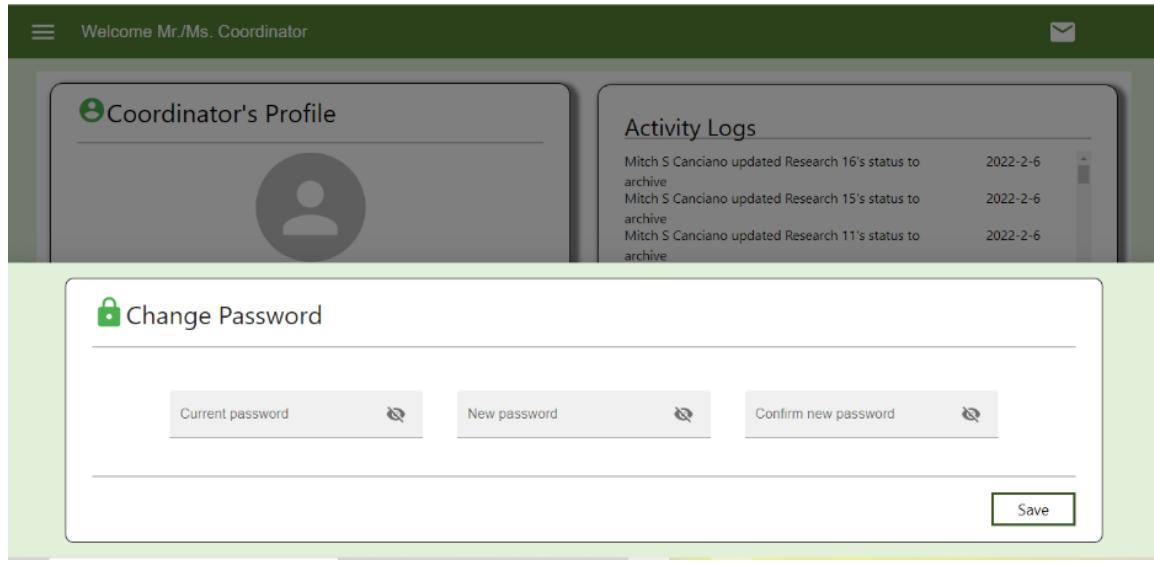


Figure 24. SCS Research Coordinator (System Administrator) Change Password

Figure 24. Shows the needed information upon changing the password. The SCS Research Coordinator (System Administrator) is allowed to change the password using the save button.

The screenshot shows a table titled "Activated Student's Account" under the "Coordinator's Profile" section. The table lists 13 student records with columns for StudentNo, Student Name, Sex, Birth Date, Course, Year and Section, and Reg. Date. The first record is highlighted in green. The last record, "Canciano, Marcky S", is also highlighted in green. There are two buttons at the top right of the table: "Deactivated" and "Researches".

StudentNo	Student Name	Sex	Birth Date	Course, Year and Section	Reg. Date
1801025	Canciano, Mitch S	Male	27-10-1999	BSCS 4-1	6-12-2021
1801026	Palabyab, Steven Charles P	Male	28-11-2021	BSIT 3-2	16-12-2021
1801027	Dacalose, Mary Rose Anne M	Female	29-8-2021	BSCS 4-1	16-12-2021
1801030	Maunahan, Judy Anne Mae M	Female	1-8-2021	BSCS 4-1	16-12-2021
1801031	Tranca, Bryan M	Male	31-1-2021	BSIT 4-1	16-12-2021
101032	Marmo, Shawn L	Female	30-5-2021	BSIT 4-1	16-12-2021
1801033	Calanog, Ayhescka Mae P	Female	29-8-2021	BSIT 4-1	16-12-2021
1801019	Canciano, Mio S	Female	23-2-2021	BSIT 4-1	8-1-2022
1801132	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-1	1-1-1970
1234	das, asd zxc	Male	26-12-2021	BSIT 4-3	18-1-2022
117013	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-7	18-1-2022
1370713	Canciano, Marcky S	Male	15-8-2006	BSIT 4-7	19-1-2022

Figure 25. SCS Research Coordinator (System Administrator) Register New SCS Research Coordinator

Figure 25. Shows SCS Research Coordinator (System Administrator) Register new Coordinator that needs to be filed up if there is a need to change the current SCS Research Coordinator.

Welcome Mr./Ms. Coordinator

Register New Coordinator

Choose File No file chosen

Username:

Password:

First Name:

Middle Initial:

Last Name:

Name:

Extension:

Birth Date: mm/dd/yyyy

Contact No.:

Email Address:

Date Registered: 2-6-2022

Figure 26. SCS Research Coordinator (System Administrator) Activated Student Account

Figure 26. The Research Coordinator (System Administrator) can view the list of Activated SCS Student Accounts The Research Coordinator (System Administrator) can be able to check how much research an SCS student has obtained full content access to (Approved Research).

Welcome Mr./Ms. Coordinator

Enter first name or last name

Mitch S Canciano's Approved Researches

Title	Course	ResearchCategories	Year Submitted	Date Approved	Remove
Research 8	BSIT	Game Dev, Hardware	2005	2022-1-6	
Research 12	BSCS	Hardware, Mobile App	2006	2022-1-6	
Research 15	BSIT	Hardware, Augmented Reality	2004	2022-1-6	
Research 16	BSCS	Augmented Reality, Game Dev	2009	2022-1-6	
Research 19	BSIT	Web System, Augmented Reality	2010	2022-1-6	

Figure 27. SCS Research Coordinator (System Administrator)
Student Approved List

Figure 27. Shows SCS Student Approved Research. The SCS Research Coordinator (System Administrator) can remove the full content access of the selected SCS Student on particular research.

StudentNo	Student Name	Sex	Birth Date	Course, Year and Section	Reg. Date
1801034	Calugay, Justine Marc M	Male	1-8-2021	BSIT 2-4	16-12-2021
1801035	Josafat, Albert Joseph B	Male	1-8-2021	BSIT 4-4	16-12-2021
1801036	Ogatis, Klouney A	Female	25-4-2021	BSCS 3-5	16-12-2021
1801037	Canciano, Marcky S	Male	15-8-2006	BSCS 4-2	17-12-2021
1801024	Centeno, Andrea Mae C	Female	2-5-2021	BSCS 4-3	17-12-2021
1801011	Tuazon, Zyra N	Female	29-8-2021	BSCS 4-3	5-1-2022

Figure 28. SCS Research Coordinator (System Administrator)
Deactivated Student Account

Figure 28. The Research Coordinator (System Administrator) can view the list of Deactivated SCS Students Account.

Figure 29. Research Coordinator (System Administrator)
Upload New Research

Figure 29. This shows the details that need to be filled up by the SCS Research Coordinator (System Administrator) when uploading new Research on the system.

The screenshot shows a web-based application interface for managing research requests. At the top, a green header bar displays the text "Welcome Mr./Ms. Coordinator". Below the header, a section titled "Student Requests for Full Content" contains a table with the following data:

Student No.	Student Name	Title	Date	Approve	Decline
1801029	Judy Ann Mae M Maunahan	Complaint Management System	2022-1-31	👍	👎
1801029	Judy Ann Mae M Maunahan	Online Student Portal for Tagaytay National Highschool	2022-1-31	👍	👎
1801029	Judy Ann Mae M Maunahan	Research Information System	2022-1-31	👍	👎
1801025	Mitch S Canciano	Research 1	2022-2-6	👍	👎
1801025	Mitch S Canciano	Research 6	2022-2-6	👍	👎

A "Clear All" button is located in the top right corner of the request list area. The background of the page is light green.

Figure 30. Research Coordinator (System Administrator)
Management of Permission Request.

Figure 30. Show the number of Request from SCS Students for permission to view full content of a research. The Research Coordinator (System Administrator) could either approve or decline these request or even clear all of the request list

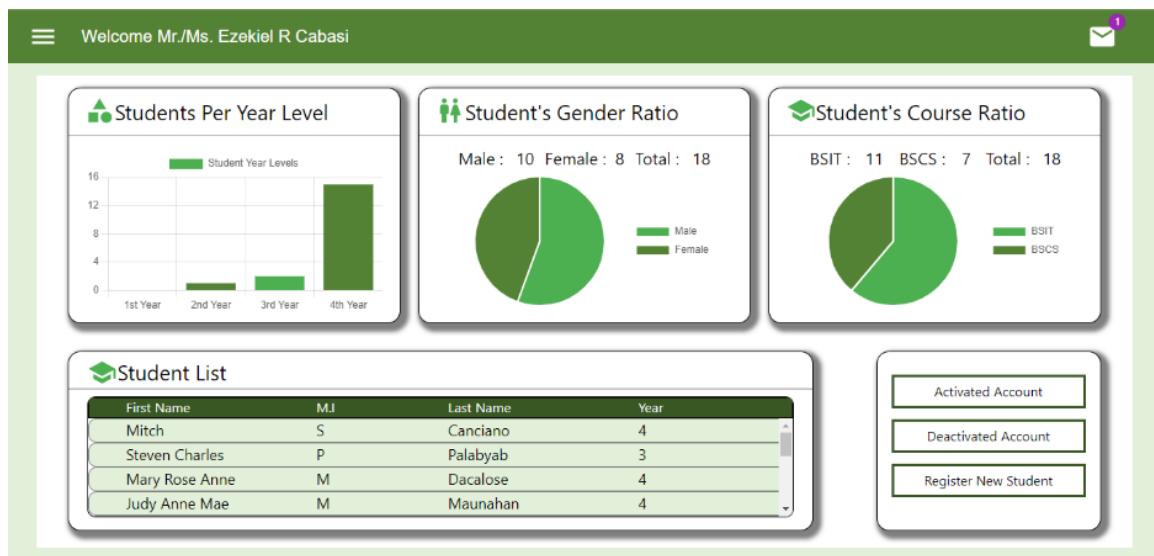


Figure 31. MIS Officer Dashboard.

Figure 31. Show's the MIS Officer Dashboard. This page contains a graph showing Students per year Level, Student Gender Ratio, and Student Course Ratio as well as the Overall List of Students in the system. A menu for profile management and for management of Activated and deactivated Accounts as well as for Registration of new SCS Students in the system.

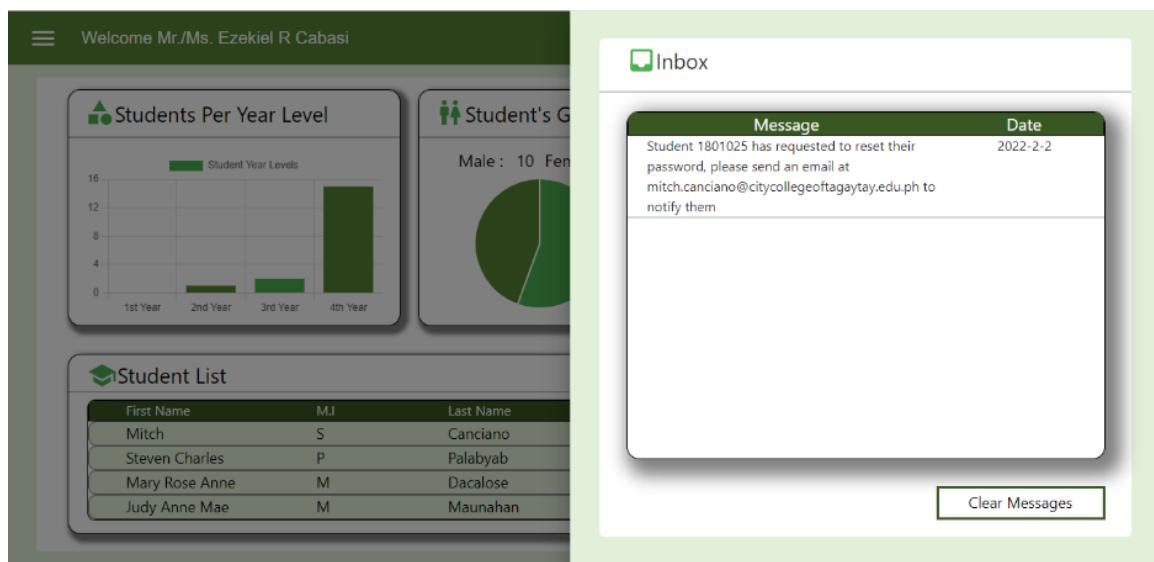


Figure 32. MIS Officer Menu.

Figure 32. Shows the MIS Officer Menu which includes different options such as “Dashboard” –which allows to go back to the MIS Officer or to display the dashboard, the “Profile” -which allows viewing profile information, and “Log out” to exit from the system.

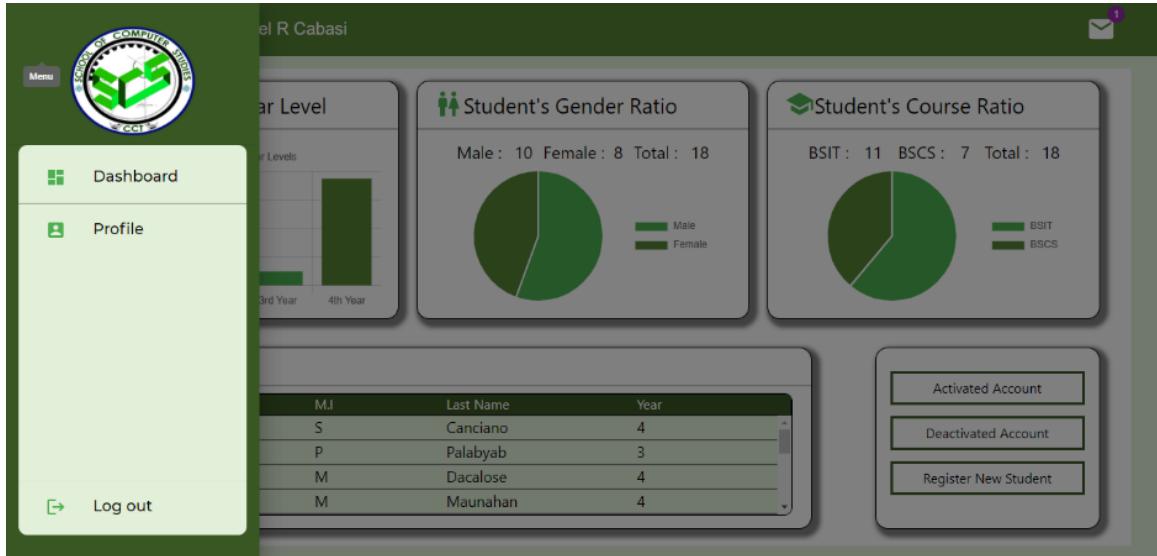


Figure 33. MIS Officer Notification Inbox.

Figure 33. Show the MIS Officer Notification Inbox that displays the request for Password Reset made by the SCS Student

The screenshot shows a software application window titled "Activated Student's Account". At the top right are buttons for "Deactivate", "Edit", and "Reset". Below is a table with columns: "Select All", "StudentNo", "Student Name", "Sex", "Birth Date", "Course, Year and Section", "Reg. Date", and "Reset". The table lists 13 student records. A search bar at the top left says "Enter first name or last name".

Select All	StudentNo	Student Name	Sex	Birth Date	Course, Year and Section	Reg. Date	Reset
<input type="checkbox"/>	1801025	Canciano, Mitch S	Male	27-10-1999	BSCS 4-1	6-12-2021	
<input type="checkbox"/>	1801026	Palabyab, Steven Charles P	Male	28-11-2021	BSIT 3-2	16-12-2021	
<input type="checkbox"/>	1801027	Dacalose, Mary Rose Anne M	Female	29-8-2021	BSCS 4-1	16-12-2021	
<input type="checkbox"/>	1801030	Maunahan, Judy Anne Mae M	Female	1-8-2021	BSCS 4-1	16-12-2021	
<input type="checkbox"/>	1801031	Tranca, Bryan M	Male	31-1-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	101032	Marmo, Shawn L	Female	30-5-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	1801033	Calanog, Ayescka Mae P	Female	29-8-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	1801019	Canciano, Mio S	Female	23-2-2021	BSIT 4-1	8-1-2022	
<input type="checkbox"/>	1801132	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-1	1-1-1970	
<input type="checkbox"/>	1234	das, asd zxc	Male	26-12-2021	BSIT 4-3	18-1-2022	
<input type="checkbox"/>	117013	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-7	18-1-2022	
<input type="checkbox"/>	1370743	Canciano, Mitch S	Male	15-9-2005	BSIT 4-7	10-4-2022	

Figure 34. MIS Officer Active Student Management.

Figure 34. Shows the Activated Student Account. The MIS Officer can manually select or select all SCS Students he wants to deactivate or edit profile information. From here, the MIS Officer can also reset SCS Student Password as per request.

The screenshot shows a software application window titled "Activated Student's Account". On the right, a modal dialog box titled "Edit Student Details" is open, containing fields for "Advance Year Level", "Change Course", "Section:", and "Change Section". The main table is identical to Figure 34. A search bar at the top left says "Enter first name or last name".

Select All	StudentNo	Student Name	Sex	Birth Date	Course, Year and Section	Reg. Date	Reset
<input type="checkbox"/>	1801025	Canciano, Mitch S	Male	27-10-1999	BSCS 4-1	6-12-2021	
<input type="checkbox"/>	1801026	Palabyab, Steven Charles P	Male	28-11-2021	BSIT 3-2	16-12-2021	
<input type="checkbox"/>	1801027	Dacalose, Mary Rose Anne M	Female	29-8-2021	BSCS 4-1	16-12-2021	
<input type="checkbox"/>	1801030	Maunahan, Judy Anne Mae M	Female	1-8-2021	BSCS 4-1	16-12-2021	
<input type="checkbox"/>	1801031	Tranca, Bryan M	Male	31-1-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	101032	Marmo, Shawn L	Female	30-5-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	1801033	Calanog, Ayescka Mae P	Female	29-8-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	1801019	Canciano, Mio S	Female	23-2-2021	BSIT 4-1	8-1-2022	
<input type="checkbox"/>	1801132	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-1	1-1-1970	
<input type="checkbox"/>	1234	das, asd zxc	Male	26-12-2021	BSIT 4-3	18-1-2022	
<input type="checkbox"/>	117013	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-7	18-1-2022	
<input type="checkbox"/>	1370743	Canciano, Mitch S	Male	15-9-2005	BSIT 4-7	10-4-2022	

Figure 35. MIS Officer edit student details

Figure 35. Shows what information the MIS Officer can modify on the SCS Student account. The MIS Officer can manually select or select all SCS Students to apply changes in course, section, or advancing of year level

The screenshot shows a software application window titled "Welcome Mr./Ms. Ezekiel R Cabasi". At the top, there is a search bar with the placeholder "Enter first name or last name". Below the search bar, a button labeled "Activate" is visible. The main content area is titled "Deactivated Student's Account" and contains a table with the following data:

<input type="checkbox"/> Select All	StudentNo	Student Name	Sex	Birth Date	Course, Year and Section	Reg. Date
<input type="checkbox"/>	1801034	Calugay, Justine Marc M	Male	1-8-2021	BSIT 2-4	16-12-2021
<input type="checkbox"/>	1801035	Josafat, Albert Joseph B	Male	1-8-2021	BSIT 4-4	16-12-2021
<input type="checkbox"/>	1801036	Ogatis, Klouney A	Female	25-4-2021	BSCS 3-5	16-12-2021
<input type="checkbox"/>	1801037	Canciano, Marcky S	Male	15-8-2006	BSCS 4-2	17-12-2021
<input type="checkbox"/>	1801024	Centeno, Andrea Mae C	Female	2-5-2021	BSCS 4-3	17-12-2021
<input type="checkbox"/>	1801011	Tuazon, Zyla N	Female	29-8-2021	BSCS 4-3	5-1-2022

Figure 36. MIS Officer Inactive Student.

Figure 36. Show the Deactivated Student Account From the list of accounts, The MIS Officer can manually select or select all SCS Students whom he wants activate.

The screenshot shows a software application window titled "Welcome Mr./Ms. Ezekiel R Cabasi". The main content area is titled "Register New Student" and contains the following form fields:

Student ID:	<input type="text"/>	Select Course:	<input type="button" value="BSIT"/>
First Name:	<input type="text"/>	Year Level:	<input type="button" value="1"/>
Middle Initial:	<input type="text"/>	Sex:	<input type="button" value="Male"/>
Last Name:	<input type="text"/>	Section:	<input type="text"/>
Name Extension:	<input type="text"/>	Date Registered:	2-6-2022
Birth Date	<input type="text"/> mm/dd/yyyy	Note: Default password for each account will be last name + 123 Example: Garcia123	
<input type="button" value="Register"/>			

Figure 37. MIS Officer Register New Student.

Figure 37. Shows the needed details to be filled up upon registering new SCS Student Account on the system.

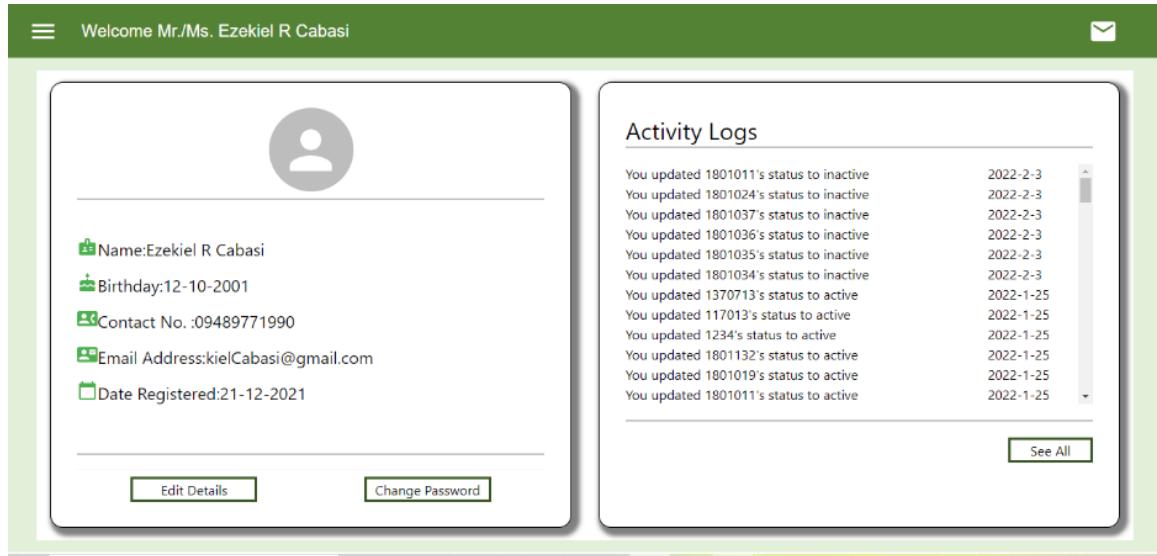


Figure 38. MIS Officer Profile.

Figure 38. Shows the Profile of the MIS Officer where the MIS Officer can change password, update personal information, and view activity logs.

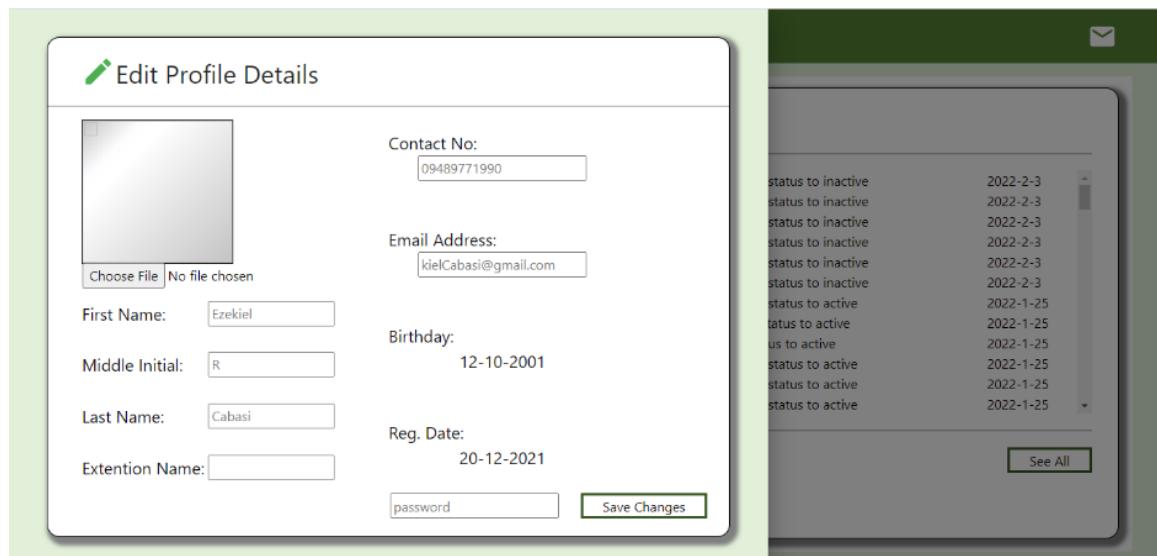


Figure 39. MIS Officer Edit Profile Details

Figure 39. Shows the needed information upon editing MIS Officer Profile Details.

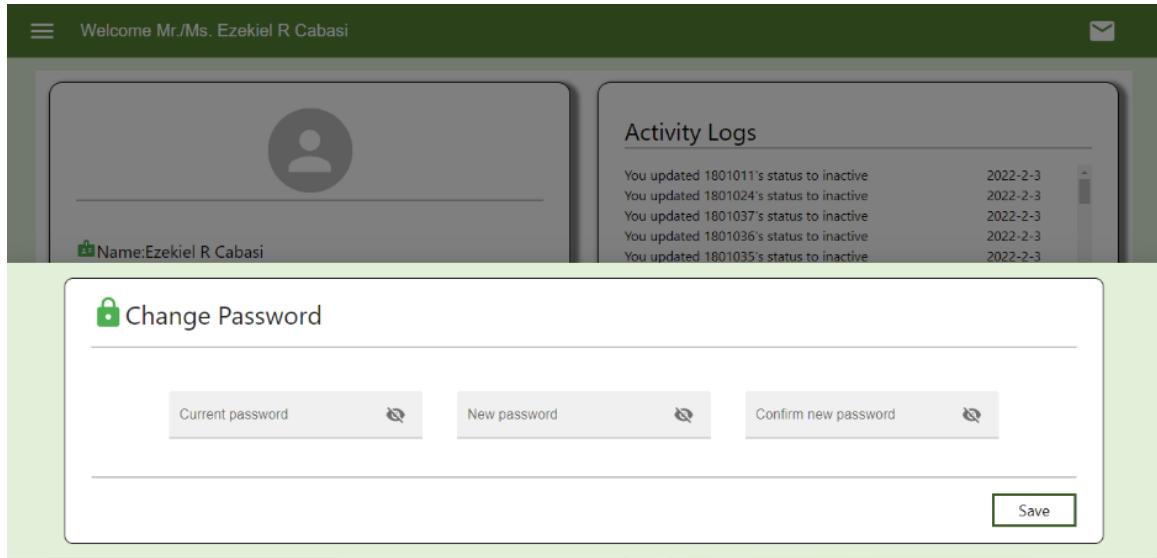


Figure 40. MIS Officer Change Password

Figure 40. Shows the needed information upon changing the password. The MIS Officer is allowed to change to a new password using save button.

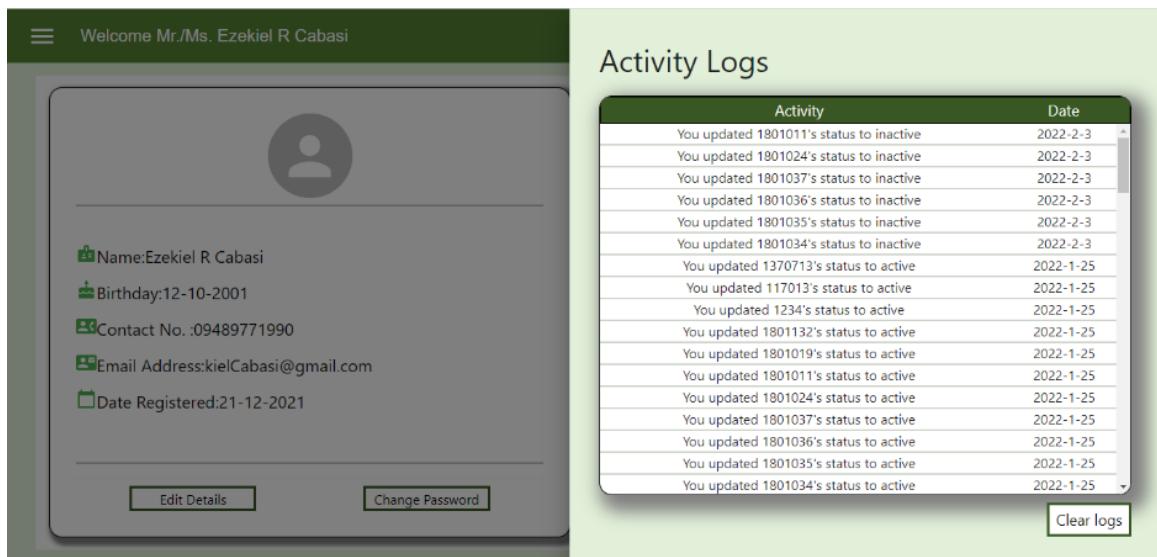


Figure 41. MIS Officer Activity logs

Figure 41. Shows the Activity Logs of MIS Officer where he/she can be able to view all activities made on the system.

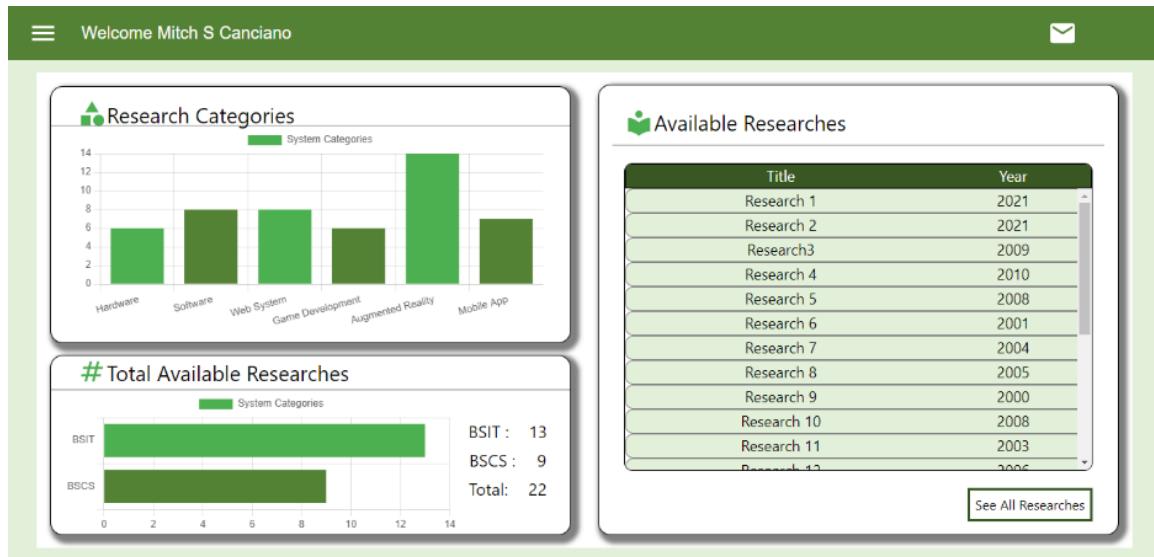


Figure 42. SCS Student Dashboard

Figure 42. Shows the SCS Student Dashboard which displays a graph showing number of Research in each Categories, total available research from courses under SCS and all the available research in the system. A notification inbox and menu option can also be found in the SCS Student dashboard.

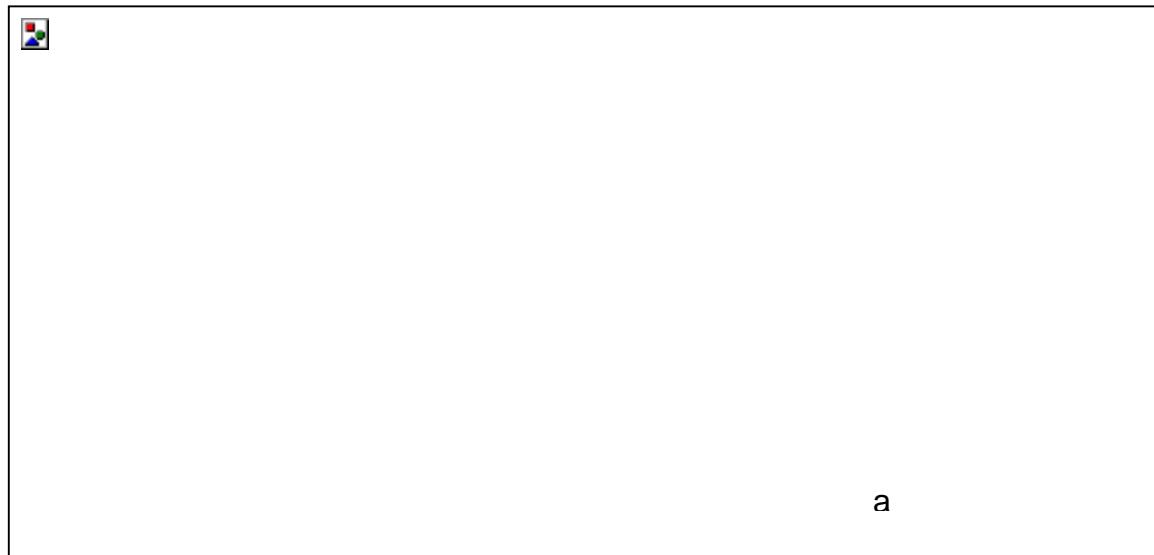


Figure 43. SCS Student Notification Inbox

Figure 43. Shows the SCS Student Notification Inbox where Students can get a confirmation when their password has been reset by the MIS Officer or their

request for viewing full content of a Research Content has been declined or accepted by the SCS Research Coordinator (System Administration). The SCS Student can also receive a notification once SCS Research Coordinator cleared the Request list from SCS Research Coordinator Dashboard.

The screenshot shows a web-based dashboard for a student named Mitch S Canciano. At the top, there's a green header bar with the text "Welcome Mitch S Canciano". Below the header, on the left, is a profile section featuring a circular logo with "SCHOOL OF COMPUTER STUDIES" and "SCS" in the center, surrounded by a blue border. To the right of the logo, there are several user details: Name: Mitch S Canciano, Birthday: 28-10-1999, Course: BSCS, Year Level: 4, Section: 1, and Date Registered: 7-12-2021. There's also a small "Update" button at the bottom of this section. On the right side of the dashboard, there are two main sections: "Number of Requested Research" and "Activity Logs". The "Number of Requested Research" section displays two counts: "Pending requested researches" (0) and "Approved requested researches" (6), with a "View List" button below. The "Activity Logs" section lists five entries of research requests made by the student, each with a timestamp of "2022-1-20". At the bottom right of this section is a "See All" button.

Figure 44. SCS Student Research List.

Figure 44. Show the Available Research from SCS Student view.

This page shows the list of available research abstracts in the system. SCS students can make a Request to view the full access of research contents from here

The screenshot shows a web-based application interface for a student profile. At the top, there is a green header bar with the text "Welcome Mitch S Canciano". Below the header is a search bar labeled "Enter Research Title". The main content area is titled "Available Researches" and contains a table with the following data:

Title	Research Categories	Year	View Details	Request
Research 1	Hardware, Software	2021		
Research 2	Hardware, Web System	2021		
Research 3	Software, Game Dev	2009		
Research 4	Software, Augmented Reality	2010		
Research 5	Mobile App, Game Dev	2008		
Research 6	Web System, Augmented Reality	2001		
Research 7	Web System, Game Dev	2004		
Research 8	Game Dev, Hardware	2005		
Research 9	Game Dev, Augmented Reality	2000		
Research 10	Software, Web System	2008		
Research 11	Software, Mobile App	2003		

Figure 45. SCS Student Profile.

Figure 45. Shows SCS Student Profile which displays profile information about the SCS Student. An SCS Student can only change their password and is not allowed to edit his profile information. From here, information about the requested research status can also be viewed as well as the activity logs.

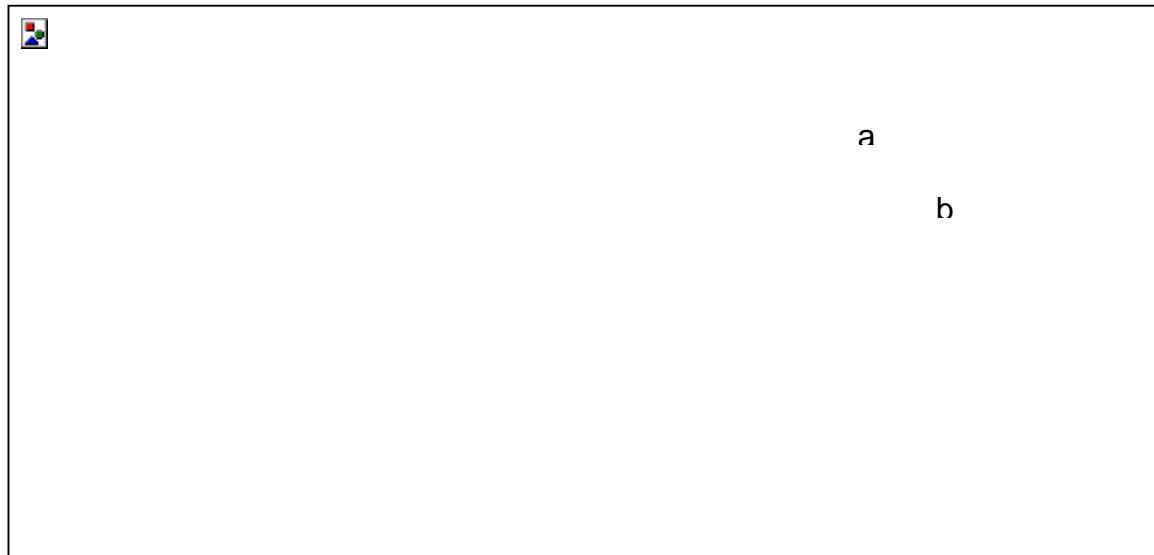


Figure 46. SCS Student Pending Request

Figure 46. Shows SCS Student Pending Research from which a Student Request that hasn't been accepted yet by the SCS Research Coordinator will be located

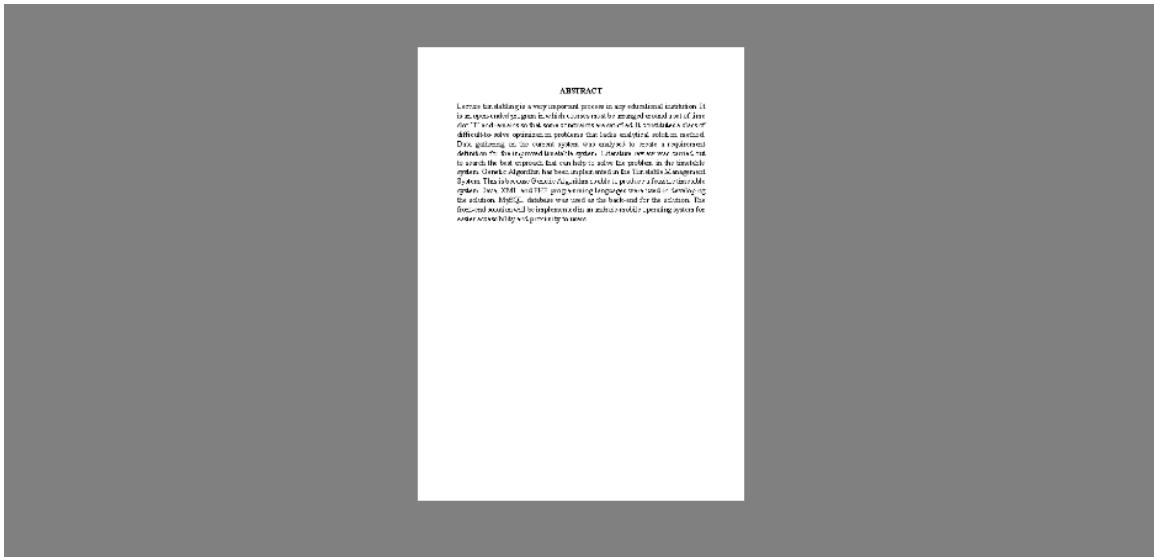


Figure 47. SCS Student Research Abstract

Figure 47. Shows the abstract view of the selected research for Students who don't have access to the full content

The screenshot shows a web-based application interface for managing research projects. At the top, there is a green header bar with the text "Welcome Mitch S Canciano" and a mail icon. Below the header is a white content area titled "Approved Requested Researches". A table lists five research projects with columns for Title, Research Categories, Year Submitted, Date Approved, and View. The "View" column contains small icons for each row. A "Pending Requests" button is located in the top right corner of the content area.

Title	Research Categories	Year Submitted	Date Approved	View
Research 8	Game Dev, Hardware	2005	2022-1-6	[View]
Research 12	Hardware, Mobile App	2006	2022-1-6	[View]
Research 15	Hardware, Augmented Reality	2004	2022-1-6	[View]
Research 16	Augmented Reality, Game Dev	2009	2022-1-6	[View]
Research 19	Web System, Augmented Reality	2010	2022-1-6	[View]

Figure 48. SCS Student Approved Research

Figure 48. Shows SCS Student Approved Research from which an SCS Student has access to full content.

The screenshot shows a dark-themed web-based application interface. On the left, there is a "Strict Reminder" dialog box with the following text:
This document is owned by the institution and the author of the study. You are only permitted to read/view this document for research purposes. It is illegal and punishable under the law to copy anything from this document. Illegal distribution or copying of the document outside the institution may result to expulsion. Do you understand?
 Yes, I understand
[Cancel] [Yes]
On the right, there is a sidebar titled "Research Information System" containing the following details:
Title: Research Information System
Course: BSIT
Categories: Software, Web System
Year Submitted: 2022
Authors:
Mitch Canciano
Bryan Iranca
John Shariff Reyes
Judy Ann Mae Maunahan
...
[View Document]
The main content area on the left shows a table with one row, where the first three columns are visible and the last two are hidden.

Figure 49. SCS Student Research Strict Reminder

Figure 49. Shows a dialog box of strict reminder before accessing the full content of the research



Figure 50. SCS Student Research Full Content

Figure 50. Shows the research full content.

A screenshot of a web application showing a "Change Password" form. The header says "Welcome Mitch S Canciano". On the left, there is a logo for "SCHOOL OF COMPUTER STUDIES". On the right, there is a sidebar with "Number of Requested Research" and two buttons: "Pending requested researches" (3) and "Approved requested researches" (6). The main form has fields for "Current password", "New password", and "Confirm new password", each with a "Save" icon. Below the fields is a "Save" button.

Figure 51. SCS Student Change password

Figure 51. Shows the needed information upon changing the SCS Student Password. The save button allows saving the new password.

Activity	Date
You requested Research 6 for full content viewing	2022-2-6
You requested Research 1 for full content viewing	2022-2-6
You requested Research3 for full content viewing	2022-2-6
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20

Figure 52. SCS Student Activity Logs

Figure 52. Shows the Activity Logs of SCS Student where he/she can be able to view all activities made on the system.

Project Evaluation

Following the development of the system, it was evaluated by IT professionals and students using ISO 9126. It was conducted at the City College of Tagaytay. ISO 9126 evaluation criteria are categorized into functionality - defined as a software product that assists in meeting the needs of clients, reliability - determines a software's ability to continue to function under varying conditions, usability - highly reliant on software's functional uses, efficiency - the ability of software to provide the desired functionality when used, maintainability – easily detect and correct a flaw and portability - easily adapt to the environmental changes frequently as possible. The ratings are as follows:

Rating Scale:

4.21 – 5.00	Excellent
3.41 – 4.20	Very Good
2.61 – 3.40	Good
1.81 – 2.60	Fair
1.00 – 1.80	Poor

Breakdown of Respondents

The proponents conducted a survey about a Capstone Project entitled "Development of Research Information System for School of Computer Studies in City College of Tagaytay's." The City College of Tagaytay has 4,340 students and 27 faculty members/IT professionals. How many of these students and faculty members/IT professionals would the proponents need to respond to the survey if the study is conducted with a 5% margin of error?

The proponents used the Raosoft sample size calculator to calculate the number of respondents with a 5% margin of error, an 85% confidence level, and a 50% response distribution given a population of 4340 students and 27 faculty members/IT professionals in the School of Computer Studies (SCS) at City College of Tagaytay.

Sample size calculator

What margin of error can you accept? %
5% is a common choice

The margin of error is the amount of error that you can tolerate. If 90% of respondents answer yes, while 10% answer no, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55.
Lower margin of error requires a larger sample size.

What confidence level do you need? %
Typical choices are 90%, 95%, or 99%

The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer yes would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone.
Higher confidence level requires a larger sample size.

What is the population size?
If you don't know, use 20000

How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.

What is the response distribution? %
Leave this as 50%

For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under [More Information](#) if this is confusing.

Your recommended sample size is

This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

Figure 53. Raosoft Sample Size Calculator for Faculty/Client and IT Professionals of City College of Tagaytay

Figure 53 Illustrates the sample size calculation for faculty members/IT professionals, resulting in 24 responses. To conduct the survey reliably with a 5% margin of error, the proponents would require 24 out of 27 Faculty Members/IT Professionals to respond.

The Raosoft Sample size calculator interface. It shows the following inputs and their descriptions:

- What margin of error can you accept?**: 5% (Note: 5% is a common choice)
- What confidence level do you need?**: 85% (Note: Typical choices are 90%, 95%, or 99%)
- What is the population size?**: 4340 (Note: If you don't know, use 20000)
- What is the response distribution?**: 50% (Note: Leave this as 50%)
- Your recommended sample size is**: 198 (Note: This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.)

Figure 54. Raosoft Sample size Calculator for Students of City College of Tagaytay

Figure 54. Shows how the students' sample size was calculated, yielding a total of 198 respondents. To conduct the survey reliably with a 5% margin of error, the proponents would need 198 out of 4340 students to respond.

Table 1 shows the number of respondents who will use ISO 9126 to evaluate the developed system to ensure that it adheres to the software quality characteristics.

Table 1. Breakdown of Respondents

IT professional	24	10.81
Students	198	89.19
TOTAL	222	100%

Respondents Assessment on the software Functionality

Table 2. Shows the respondent's assessment on the software functionality from the IT professionals, Suitability got the mean of 4.29, Accuracy got the mean of 4.21, Interoperability got the mean of 4.00, Compliance got the mean of 4.08, and Security got the mean of 3.96. This shows that a large number of users rated the system as "Very Good".

Table 2. IT Professionals Assessment on the software Functionality

INDICATORS	MEAN	INTERPRETATION
Suitability	4.29	Excellent
Accuracy	4.21	Excellent
Interoperability	4.00	Very Good
Compliance	4.08	Very Good
Security	3.96	Very Good
MEAN AVERAGE	4.11	Very Good

Table 3. Shows the respondent's assessment on the software functionality from the student's respondent, Suitability got the mean of 4.42, Accuracy got the mean of 4.37, Interoperability got the mean of 4.44, Compliance got the mean of 4.37, and Security got the mean of 4.36. This shows that a large number of users rated the system as "Excellent".

Table 3. Students Assessment on the software Functionality

INDICATORS	MEAN	INTERPRETATION
Suitability	4.42	Excellent
Accuracy	4.37	Excellent
Interoperability	4.44	Excellent
Compliance	4.37	Excellent
Security	4.36	Excellent
MEAN AVERAGE	4.39	Excellent

Respondents Assessment on the software Reliability

INDICATORS	MEAN	INTERPRETATION
Maturity	4.13	Very Good
Fault Tolerance	3.92	Very Good
Recoverability	4.08	Very Good
MEAN AVERAGE	4.04	Very Good

Table 4. Shows the respondent's assessment on the software reliability from the IT professionals, Maturity got the mean of 4.13, Fault Tolerance got the mean of 3.92, and Recoverability got the mean of 4.08. This shows that a large number of users rated the system as "Very Good".

Table 4. IT Professionals Assessment on the software Reliability

Table 5. This shows the respondent's assessment on the software reliability from the student's respondent, Maturity got the mean of 4.41, Fault Tolerance got the mean of 4.40, and Recoverability got the mean of 4.37. This shows that a large number of users rated the system as "Excellent".

Table 5. Students Assessment on the software Reliability

INDICATORS	MEAN	INTERPRETATION
Maturity	4.41	Excellent
Fault Tolerance	4.40	Excellent
Recoverability	4.37	Excellent
MEAN AVERAGE	4.39	Excellent

Respondents Assessment on the software Usability

Table 6. Shows the respondent's assessment on the software usability from the IT professionals, Understandability got the mean of 4.29, Learnability got the mean of 4.46, Operability got the mean of 4.33, and Attractiveness got the mean of 3.92. This shows that a large number of users rated the system as "Excellent".

Table 6. IT Professionals Assessment on the software Usability

INDICATORS	MEAN	INTERPRETATION
Understandability	4.29	Excellent
Learnability	4.46	Excellent
Operability	4.33	Excellent
Attractiveness	3.92	Very Good
MEAN AVERAGE	4.25	Excellent

Table 7. Shows the respondent's assessment on the software usability from the student's respondent, Understandability got the mean of 4.49, Learnability got the mean of 4.45, Operability got the mean of 4.43, and Attractiveness got the mean of 4.30. This shows that a large number of users rated the system as "Excellent".

Table 7. Students Assessment on the software Usability

INDICATORS	MEAN	INTERPRETATION
Understandability	4.49	Excellent
Learnability	4.45	Excellent
Operability	4.43	Excellent
Attractiveness	4.30	Excellent
MEAN AVERAGE	4.42	Excellent

Respondents Assessment on the software Efficiency

Table 8. Shows the respondent's assessment on the software reliability from the IT professionals, Time Behavior got the mean of 4.13, and Resource Behavior got the mean of 4.29. This shows that a large number of users rated the system as "Excellent".

Table 8. IT Professionals Assessment on the software Efficiency

INDICATORS	MEAN	INTERPRETATION
Time Behavior	4.13	Very Good
Resource Behavior	4.29	Excellent
MEAN AVERAGE	4.21	Excellent

Table 9. Shows the respondent's assessment on the software reliability from the student's respondent, Time Behavior got the mean of 4.43, and Resource Behavior got the mean of 4.42. This shows that a large number of users rated the system as "Excellent".

Table 9. Students Assessment on the software Efficiency

INDICATORS	MEAN	INTERPRETATION
Time Behavior	4.43	Excellent
Resource Behavior	4.42	Excellent
MEAN AVERAGE	4.43	Excellent

Respondents Assessment on the software Maintainability

Table 10. Shows the respondent's assessment on the software maintainability from the IT professionals, Analyzability got the mean of 4.13, Changeability got the mean of 4.00, Stability got the mean of 4.08, and Testability got the mean of 4.29. This shows that a large number of users rated the system as "Very Good".

Table 10. IT Professionals Assessment on the software Maintainability

INDICATORS	MEAN	INTERPRETATION
Analyzability	4.13	Very Good
Changeability	4.00	Very Good
Stability	4.08	Very Good
Testability	4.29	Excellent
MEAN AVERAGE	4.13	Very Good

Table 11. Shows the respondent's assessment on the software maintainability from the student's respondent, Analyzability got the mean of 4.35, Changeability got the mean of 4.30, Stability got the mean of 4.37, and Testability got the mean of 4.37. This shows that a large number of users rated the system as "Excellent".

Table 11. Students Assessment on the software Maintainability

INDICATORS	MEAN	INTERPRETATION
Analyzability	4.36	Excellent
Changeability	4.31	Excellent
Stability	4.38	Excellent
Testability	4.38	Excellent
MEAN AVERAGE	4.36	Excellent

Respondents Assessment on the software Portability

Table 12. Shows the respondent's assessment on the software portability from the IT professionals, Adaptability got the mean of 4.25, Instability got the mean of 4.38, Conformity got the mean of 4.13, and Replaceability got the mean of 4.21. This shows that a large number of users rated the system as "Excellent".

Table 12. IT Professionals Assessment on the software Portability

INDICATORS	MEAN	INTERPRETATION
Adaptability	4.25	Excellent
Instability	4.38	Excellent
Conformity	4.13	Very Good
Replaceability	4.21	Excellent
MEAN AVERAGE	4.24	Excellent

Table 13. Shows the respondent's assessment on the software portability from the student's respondent, Adaptability got the mean of 4.41, Instability got the

mean of 4.36, Conformity got the mean of 4.37, and Replaceability got the mean of 4.36. This shows that a large number of users rated the system as “Excellent”.

Table 13. Students Assessment on the software Portability

INDICATORS	MEAN	INTERPRETATION
Adaptability	4.41	Excellent
Instability	4.36	Excellent
Conformity	4.37	Excellent
Replaceability	4.36	Excellent
MEAN AVERAGE	4.38	Excellent

Respondents Overall Assessment

Table 14 summarizes the result of the software evaluation. The Usability Criteria received the highest rating from the evaluators, with an average of 4.33, indicating that the system is effective, efficient, and engaging. On the other hand, IT Professionals/Instructors rated the overall mean performance of the Development of Research Information System for School of Computer Studies in City College of Tagaytay as 4.16, and the Students, which is 4.40 having an overall mean average of 4.28 affirming that the system fully meets and far exceeds the most expectations.

Table 14. Summary of Evaluation

Software Evaluation	Mean	Interpretation
Functionality	4.25	Excellent
Reliability	4.22	Excellent
Usability	4.33	Excellent
Efficiency	4.32	Excellent
Maintainability	4.24	Excellent
Portability	4.31	Excellent
Mean Average	4.28	Excellent

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATION

This chapter discussed the summary, conclusion, and recommendation of the study.

Summary

The Research Information System was developed for the School of Computer Studies in City College of Tagaytay to serve as a virtual storage facility that also functions as a viewer of Research documents that can be accessed by connecting to the School Wi-Fi Connection. The general objective of our study is to create a research information system for school of computer studies in city college of tagaytay which is a web-based local application that aims to ease the work of the SCS Research Coordinator by providing a more flexible, easy-to-use system to manage the research manuscripts and reduce the time of students searching for their needed research manuscripts.

The Proponents used JavaScript to serve as the programming language, React JS as the systems Framework, NodeJS to link the database from the front end, MongoDB as the system's database, and Bootstrap, CSS, and MUI in designing the system interface. With these applications, a fully working system was made and can be used by the institution.

The system comprises of five (5) modules: Account Management module, Record Management Module, Research Management Module, Transaction Management Module, and Activity Log Module. The Account Management Module is used to create a user account and log into the system. Record Management

Module, used to manage records of all users. Research Management Module, used for uploading, storing, and viewing research on the system. Transaction Management Module manages the request made by SCS students to view the full content of research and approval of such requests by the Research Coordinator (System Administrator). And lastly, the Activity log Module is used to track activities made by the users.

The system is intended for (3) users, namely, (1) the Research Coordinator (System Administrator), (2) MIS Officer, and (3) the SCS Student. The Research Coordinator (System Administrator) is responsible for managing research records, managing requests made by SCS students to view the full research content, and managing MIS Officers and Research. The Research Coordinator (System Administrator) is also responsible for the system maintenance. The MIS Officer is accountable for creating and managing SCS Student accounts. The SCS Student can only view the research abstract and request to view the full content.

The project was developed using the Scrum Framework. This methodology served as a guide for creating the study. The following phases are Product Backlog, Sprint Planning Meeting, Daily Scrum Meeting, Sprint Review, and Retrospective Meeting.

An online survey questionnaire based on ISO 9126 is the main tool in collecting and ranking the system performance. The study was composed of two hundred twenty-two (222) respondents: twenty-four (24) IT Professionals/Instructors, and one hundred ninety-eight (198) students from the City College of Tagaytay. The questionnaire was divided into six (6) categories,

namely: (1) functionality, (2) reliability, (3) usability, (4) efficiency, (5) maintainability, and (6) portability. The developed system has an overall rating of 4.28 with a descriptive rating of “Excellent,” which means the system fully meets and far exceeds the most expectations. Free from error, and can be recommended for the organization to be used.

Conclusion

Based on the study's objectives and the testing and evaluation results, the following conclusions were obtained.

1. The Research Information System for the School of Computer Studies in City College of Tagaytay was developed for efficiently managing the research manuscript with the following system capabilities:
 - a. it provides a virtual storage that could improve the manual process of storing and managing of research manuscripts;
 - b. it provides users with individual accounts to access the system;
 - c. it provides a notification inbox to manage communication between each user;
 - d. it provides SCS Students the ability to search and view research abstracts or research full content;
 - e. It provides a system with security features to protect research content
2. According to the various testing procedures, all of the system components are properly operating and performing effectively in various browsers..

3. The system was evaluated in accordance with ISO 9126 standards. "Usability" received the highest mean indicating that the system is effective, efficient, and engaging. The system received an overall mean score of "4.28" from the evaluators, implying that it fully satisfies and meets all of the requirements.

Recommendation

The following are recommended for future enhancement of the Development of Research Information System for the School of Computer Studies at City College of Tagaytay. Recommendations are as follows:

1. It is necessary to set a time limit for students to access the full content of a research file.
2. Disable copy-paste or screenshot while using the system.
3. Add an account for visitor or guest account.
4. Add a random password generator.
5. Deleted Logs must be retrieved for all users and not just the research coordinator in order to back-track activities of all users just in case logs are deleted on purpose or accidentally.

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Appendices:

Appendix A: Summary of Evaluation

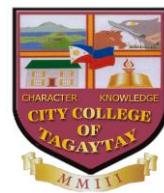
Indicators	IT Professionals	Student	Mean Average	Descriptive Rating
FUNCTIONALITY				
Suitability	4.29	4.42	4.36	Excellent
Accuracy	4.21	4.37	4.29	Excellent
Interoperability	4.00	4.44	4.22	Excellent
Compliance	4.08	4.37	4.23	Excellent
Security	3.96	4.36	4.16	Very Good
Average:	4.11	4.39	4.25	Excellent
RELIABILITY				
Maturity	4.13	4.41	4.27	Excellent
Fault Tolerance	3.92	4.40	4.16	Very Good
Recoverability	4.08	4.37	4.23	Excellent
Average:	4.04	4.39	4.22	Excellent
USABILITY				
Understandability	4.29	4.49	4.39	Excellent
Learnability	4.46	4.45	4.46	Excellent
Operability	4.33	4.43	4.38	Excellent
Attractiveness	3.92	4.30	4.11	Very Good
Average:	4.25	4.42	4.33	Excellent
EFFICIENCY				
Time Behavior	4.13	4.43	4.28	Excellent
Resource Behavior	4.29	4.42	4.36	Excellent
Average:	4.21	4.43	4.32	Excellent
MAINTAINABILITY				

Analyzability	4.13	4.36	4.24	Excellent
Changeability	4.00	4.31	4.15	Very Good
Stability	4.08	4.38	4.23	Excellent
Testability	4.29	4.38	4.34	Excellent
Average:	4.13	4.36	4.24	Excellent
PORTABILITY				
Adaptability	4.25	4.41	4.33	Excellent
Instability	4.38	4.36	4.37	Excellent
Conformity	4.13	4.37	4.25	Excellent
Replaceability	4.21	4.36	4.29	Excellent
Average:	4.24	4.38	4.31	Excellent
OVERALL MEAN AVERAGE	4.16	4.40	4.28	Excellent

Appendix B: Sample Evaluation Sheet



Republic of the Philippines
 City of Tagaytay
CITY COLLEGE OF TAGAYTAY
 Akle St., Kaybagal South, Tagaytay City 4120
 Tel. Nos. (046) 483-0470 / (046) 483 -0672



SCHOOL OF COMPUTER STUDIES

Title: **DEVELOPMENT OF RESEARCH INFORMATION SYSTEM FOR SCHOOL OF COMPUTER STUDIES IN CITY COLLEGE OF TAGAYTAY**

Proponents: **Canciano Mitch S., Maunahan Judy Ann Mae C., Reyes John Shariff D., Tranca Bryan M.**

Evaluator Name:

Type of Evaluator:

IT Professional

Client/Instructor

Student

Instruction: Please kindly evaluate the software material by using the given scale and placing a checkmark (✓) under the corresponding numerical rating.

NUMERICAL RATING	INTERPRETATION	DEFINITION
5	Excellent	The system fully meets and far exceeds the most expectations.

4	Very Good	The system fully meets all and exceeds several expectations.
3	Good	The system fully meets all expectations.
2	Fair	The system does not fully meet all expectations.
1	Poor	The system fails to meet expectation to a significant degree in several areas.

INDICATORS	5	4	3	2	1
A. FUNCTIONALITY (capability of the software product to provide functions which meet stated and implied needs).					
Suitability (appropriateness to specifications of the function of the software).					
Accuracy (correctness of the functions).					
Interoperability (ability of the software to interact with other components or system).					
Compliance (compliant capability of software in terms of laws and guidelines).					
Security (this relates to unauthorized access to the software).					
B. RELIABILITY (capability of the software product to maintain a specified level of performance).					
Maturity (this concern with the frequency of failure of the system).					
Fault-tolerance (ability of the software to withstand and recover from component or environmental failure).					
Recoverability (ability to bring back the failed system to full operation including data needed).					
C. USABILITY (capability of the software product to be understood, learned, used and attractive to the user).					
Understandability (determines the ease of which the system functions can be understood).					
Learnability (learning effort for different users).					
Operability (ability of the software to be easily operated by a given user in a given environment).					
Attractiveness (attribute of software that has the capability of the software product to be attractive to the user).					

D. EFFICIENCY (capability of the software product to provide appropriate performance, relative to the amount of resources used).					
Time behavior (characterized response times for a given throughput).					
Resource behavior (characterizes resources used).					
E. MAINTABILITY (capability of the software product to be modified. Modifications may include corrections, improvements or adaptation of the software to changes in environment, and in requirements and functional specifications)					
Analyzability (ability to identify the root cause of a failure within the software).					
Changeability (amount of effort to change a system).					
Stability (sensitivity to change of a given system).					
Testability (effort needed to verify/test a system change).					
F. PORTABILITY					
Adaptability (ability of the system to change new specification or operating environments).					
Instability (the effort required to install the software).					
Conformity (relates to portability of database used).					
Replaceability (plug and play aspects of software components).					

- *Based on ISO 9126*

Findings:

1. _____
2. _____
3. _____

Recommendations:

1. _____
2. _____
3. _____

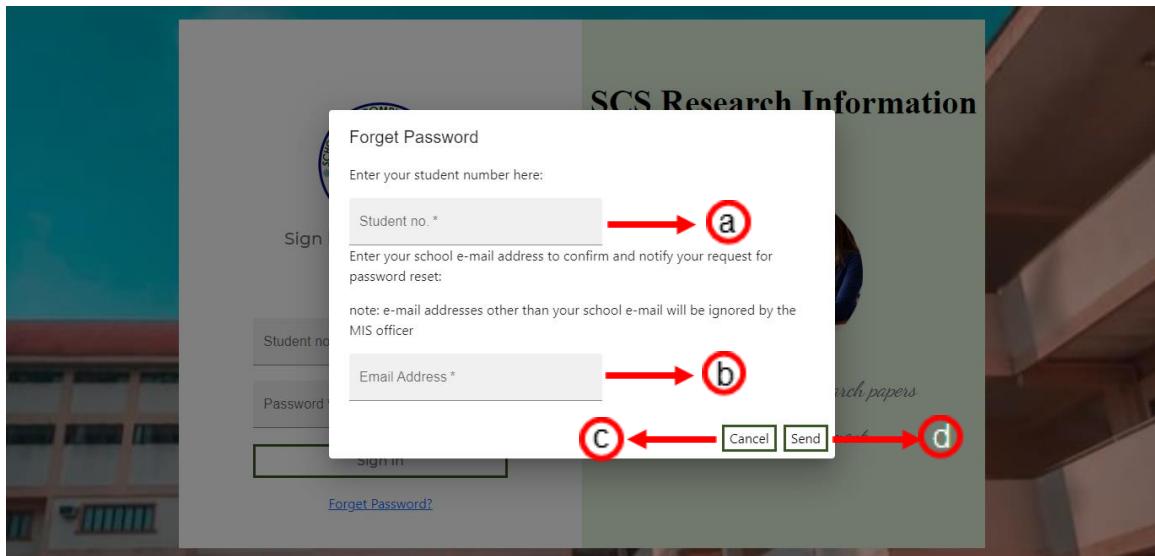
Signature

Appendix C: Operations Manual / User's Guide



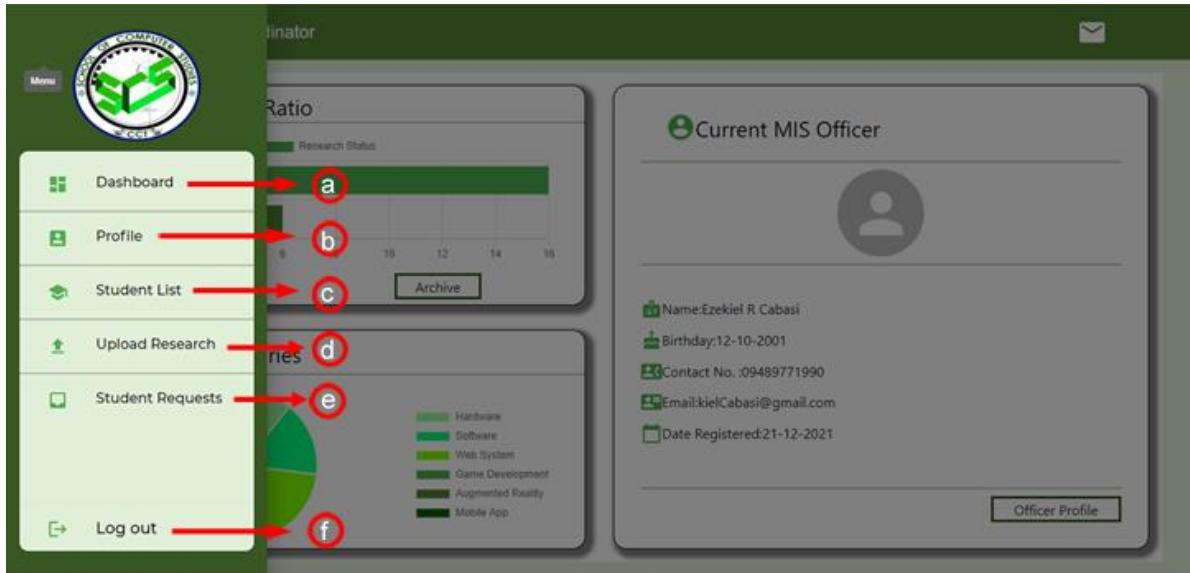
User Login

- a. Student Number text field- is where users inputs their Student Number or Username
- b. Password text field- is where users inputs their Password
- c. Sign-in button- allows users to send their login ID and password to the server for authentication, with any errors, validation message widget will pop up
- d. Forgot Password- allows SCS Students to make a request to the MIS Officer to reset their password



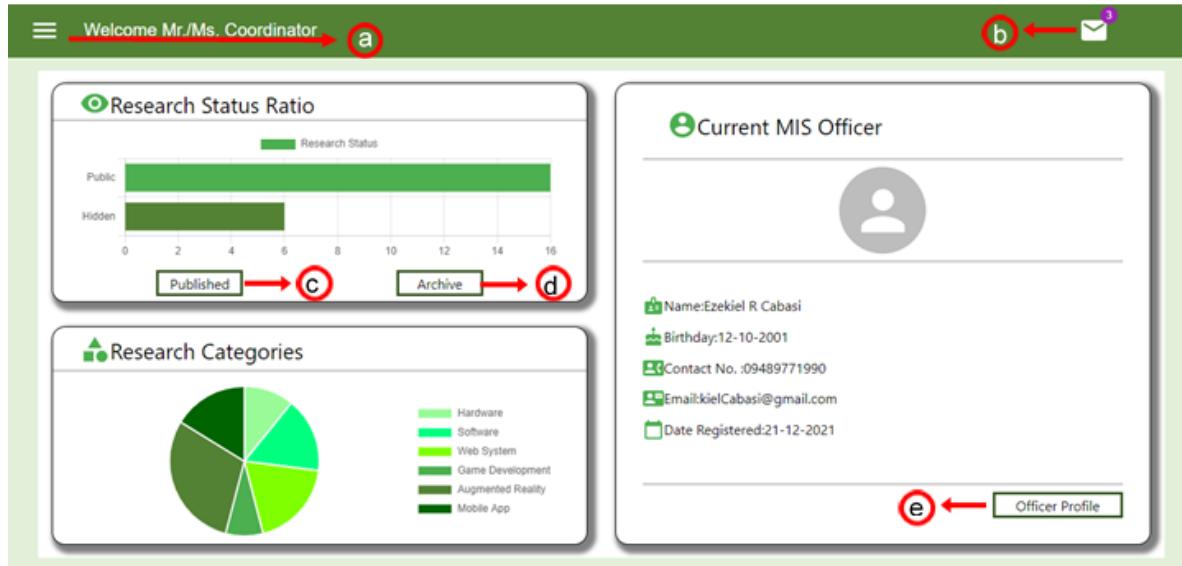
Student Forget Password

- a. Student Number text field- is where those SCS Students who wish to reset their password input their Student Number
- b. Email Address text field- is where SCS Students input their email address for password request
- c. Cancel button- button that allows cancellation of request password reset
- d. Send button- button that allows to confirm request for password reset



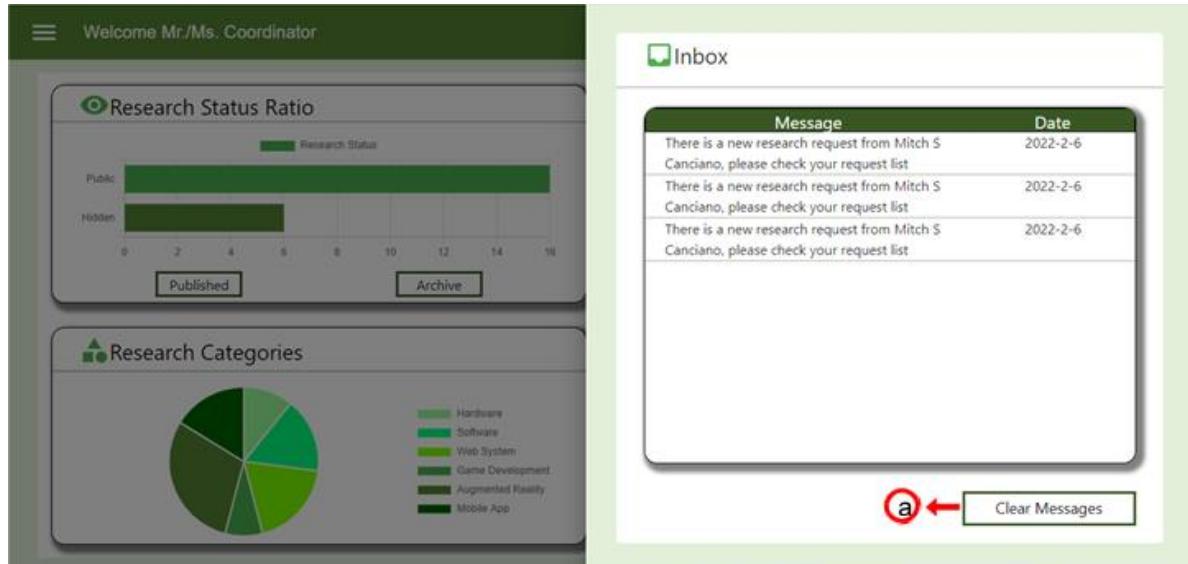
SCS Research Coordinator (System Administrator)
Menu

- a. Dashboard (menu option) - allows to go back or to display the SCS Research Coordinator (System Administrator) dashboard.
- b. Profile (menu option) – shows the profile of the SCS Research Coordinator (System Administrator)
- c. Student List (menu option) – shows the List of SCS Students that has an account on the system.
- d. Upload Research (menu option) – allows the SCS Research Coordinator (System Administrator) to upload Research files on the system.
- e. Student Request (menu option) – allows the SCS Research Coordinator (System Administrator) to display Request of SCS Students to view full research content.
- f. Log out (menu option) – allows the SCS Research Coordinator (System Administrator) to log out his account from the browser.



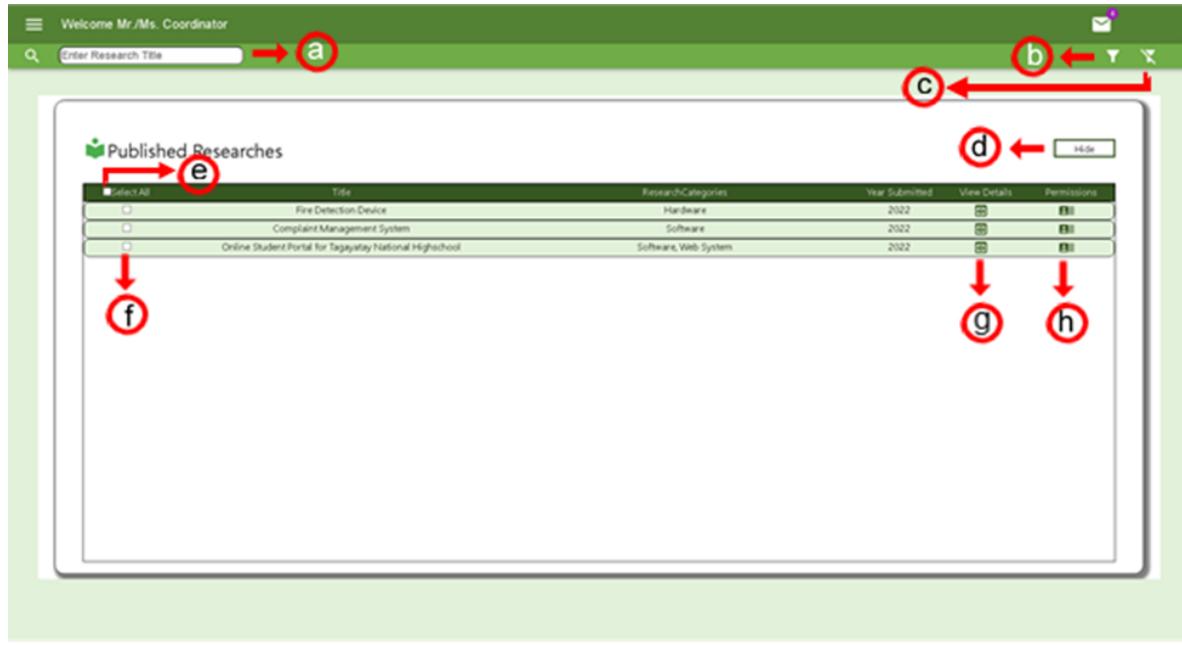
SCS Research Coordinator (System Administrator)
Dashboard

- a. Menu button- shows different options such as Dashboard, Profile, Student List, Upload Research, Students Request and Log out Option
- b. Notification Inbox - shows notification about request for full content viewing of Research
- c. Published Button – allows to view research available for public viewing
- d. Archived Button – allows to view hidden research
- e. Officer Profile Button – allows to view current MIS officers Profile



SCS Research Coordinator (System Administrator)
Notification Inbox

- a. Clear Messages Button- allows to clear messages from the notification inbox



SCS Research Coordinator (System Administrator) Published research

- a. Search Bar- where the SCS Research Coordinator (System Administrator) input title of a research that he/she wants to find
- b. Search filter button- allows the SCS Research Coordinator (System Administrator) to use search filters
- c. Off-search filter button- allows to search without the use of search filter
- d. Hide button- allows to move selected publish research to the Hidden Research
- e. Select all check box- allows to select all research on the published research
- f. Selection box- allows to manually select research for the purpose of moving it to the hidden Research
- g. View Details button- allows to check information about a Research such as Research category, year published, authors, course it belongs

- h. Permission button- allows to view and manage all of the SCS Student who has access to the selected research

The screenshot shows a modal window titled "Fire Detection Device". Inside the modal, there is a table with two rows:

Student Name	Date Approved
Bryan M Trancia	2022-4-23
Mitch S Canclano	2022-4-23

A red arrow labeled "a" points to the "Remove" button (an "X" icon) in the top right corner of the modal window.

- a. Remove button- remove SCS student permission to access the research

The screenshot shows a modal window titled "Filters:" overlaid on the "Published Researches" list. The filters include:

- Course: BSIT (circled with red arrow "a")
- Year: ex. 2001 (circled with red arrow "b")
- Sort from: A-Z (circled with red arrow "c")
- Sort by year: Newest (circled with red arrow "d")
- Research Categories:
 - Hardware (circled with red arrow "e")
 - Software
 - Web System
 - Game Dev
 - Augmented Reality
 - Mobile App
- Filter button (circled with red arrow "f")

The main list of research projects is visible in the background, showing items like Research 7 through Research 19 with their respective titles and categories.

SCS Research Coordinator (System Administrator)
Use of Research Filters

- a. Course drop down button- allows to select between BSIT and CS
- b. Year input box- where to input the year a particular research is published
- c. Sorting Option- allows to select whether to show search result alphabetically or alphabetically reverse
- d. Sort by Year Option- allows to sort year of published research in ascending or descending order
- e. Research Category Selection box- allows to manually select category of research
- f. Filter button- Allows to apply search filters and to view the search results

The screenshot shows a web-based application interface. At the top, there is a green header bar with the text "Welcome Mr./Ms. Coordinator". Below the header is a search bar containing the placeholder "Enter Research Title". The main content area has a light green background and displays a table titled "Hidden Researches". The table has columns for "Select All" (checkboxes), "Title", "ResearchCategories", "Year", and "View Details" (a small icon). There are six rows in the table, each representing a research entry. A red circle with the letter "a" and a red arrow point to the "View Details" column of the first row. The table is enclosed in a white border.

Select All	Title	ResearchCategories	Year	View Details
<input type="checkbox"/>	Research 8	Game Dev, Hardware	2005	
<input type="checkbox"/>	Research 9	Game Dev, Augmented Reality	2000	
<input type="checkbox"/>	Research 10	Software, Web System	2008	
<input type="checkbox"/>	Research 11	Software, Mobile App	2003	
<input type="checkbox"/>	Research 15	Hardware, Augmented Reality	2004	
<input type="checkbox"/>	Research 16	Augmented Reality, Game Dev	2009	

SCS Research Coordinator (System Administrator)
Archived Research

- a. Publish button – allows to move selected Hidden Research to the published research for public viewing.

The screenshot shows the MIS Officer Management interface. On the left, a card displays "Current MIS Officer" with a placeholder profile picture. Below it are five fields: Name (Ezekiel R Cabasi), Birthday (12-10-2001), Contact No. (09489771990), Email Address (kielCabasi@gmail.com), and Date Registered (21-12-2021). A red circle labeled "b" points to the "See All" button in the Activity Logs section. On the right, a card titled "Activity Logs" lists recent updates made by the officer, each with a timestamp. At the bottom of this card are two buttons: "New Officer" and "Change Officer". Red circles labeled "C" point to both of these buttons.

SCS Research Coordinator (System Administrator)
MIS Officer Management

- See all button- shows list of activities made by the current MIS Officer
- New officer button- allows to register new MIS Officer
- Change Officer button- Allows to appoint new MIS Officer

The screenshot shows the "Register New Officer" form. It includes a file upload field (a) with a "Choose File" button and a "No file chosen" message. Below are seven input fields for personal information: Username (b), Password (c), First Name (d), Middle Initial (e), Last Name (f), and Name Extention (g). To the right are four more input fields: Birth Date (h), Contact No. (i), Email Address (j), and Date Registered (k). At the bottom are two buttons: "Cancel" (l) and "Register" (l). Red arrows labeled from a to l indicate the flow of data from the user inputs to the system fields.

SCS Research Coordinator (System Administrator)
Register New Officer

- a. Choose file button (upload pic) - allows to attach picture
- b. Username input box- allows to input username of MIS Officer
- c. Password input box- allows to input password of MIS Officer
- d. First name input box- allows to input first name of MIS Officer
- e. Middle name input box- allows to input middle name of MIS Officer
- f. Last name input box- allows to input last name of MIS Officer
- g. Name Extension input box- allows to input name extension of MIS Officer
- h. Birthday/Calendar- allows to select birthdate of MIS Officer from the calendar
- i. Contact number input box- allows to input contact number of the MIS Officer
- j. Email Address input box- allows email address of the MIS Officer
- k. Cancel button- cancel registration of MIS Officer
- l. Register button- confirms registration of MIS Officer

Welcome Mr./Ms. Coordinator

Enter first name or last name

Username	Password	Officer's Name	Birthday	Contact No.	Email	Day
ChoyMIS	mis123	Mitch S Canciano	27-10-1999	09772741036	mitchsaudenio@gmail.com	15-12-2021
MarckyMIS	marcky123	Marcky S Canciano	15-8-2006	09489771990	marcky123@gmail.com	20-12-2021
MISMarcky	macky123	Marcky S Canciano	15-8-2006	09489771990	mackyCanciano@gmail.com	6-1-2022
Choy27	choy123	Choy S Canciano	27-10-1999	09772741036	choykun27@gmail.com	6-1-2022
MarckyOfficer	macky123	Marcky S Canciano	15-6-2006	09489771990	macky123@gmail.com	8-1-2022

Deactivated Officer's Account

Activate

SCS Research Coordinator (System Administrator)

Change Active MIS Officer

- Activate button- Allows to activate the account of an old MIS Officer

The screenshot shows the 'Coordinator's Profile' section on the left and 'Activity Logs' on the right.

- Coordinator's Profile:** Displays a placeholder profile picture and the following details:
 - Name: Choy L Saudenio
 - Birthday: 24-4-1970
 - Contact No.: 09772741036
 - Email Address: mitchsaudenio@gmail.com
 - Date Registered: 25-4-1970With buttons for 'Edit Details' (labeled b), 'Change Password' (labeled c), and 'New Coordinator'.
- Activity Logs:** Shows a log entry: 'You updated your profile' on 2022-1-5. It includes a 'See All' button (labeled a) and a 'Change Coordinator' button (labeled e). A red arrow labeled d points from the 'New Coordinator' button to the 'Change Coordinator' button.

SCS Research Coordinator (System Administrator)
Account Profile

- See all button- allows to view activity logs/ made by the current SCS Coordinator (System Administrator)

- b. Edit details- allows the SCS Research Coordinator (System Administrator) to edit their profile information
- c. Change Password button- allows to change password of the SCS Research Coordinator (System Administrator)
- d. New Coordinator button- allows to register new MIS Officer
- e. Change Coordinator- allows to appoint new SCS Research Coordinator (System Administrator)

Activity	Date
Mitch S Canciano updated Research 16's status to archive	2022-2-6
Mitch S Canciano updated Research 15's status to archive	2022-2-6
Mitch S Canciano updated Research 11's status to archive	2022-2-6
Mitch S Canciano updated Research 10's status to archive	2022-2-6
Mitch S Canciano updated Research 9's status to archive	2022-2-6
Mitch S Canciano updated Research 8's status to archive	2022-2-6
Mitch S Canciano updated CCT Virtual Map's status to public	2022-1-25
Mitch S Canciano updated Research 15's status to public	2022-1-25
Mitch S Canciano updated Research 21's status to public	2022-1-25
Mitch S Canciano updated Research 19's status to public	2022-1-25
Mitch S Canciano updated Research 18's status to public	2022-1-25
Mitch S Canciano updated Research 17's status to public	2022-1-25
Mitch S Canciano updated Research 16's status to public	2022-1-25
Mitch S Canciano updated Research 15's status to public	2022-1-25
Mitch S Canciano updated Research 14's status to public	2022-1-25
Mitch S Canciano updated Research 13's status to public	2022-1-25

SCS Research Coordinator (System Administrator) Activity Logs Management

- a. Activity Archive button- View all activity logs of the past coordinators

- b. Clear logs button – allows to clear activity log of the SCS Research Coordinator (System Administrator) and the deleted logs automatically put on the Activity Archive

Activity	Date
Mitch S Canciano updated CCT Virtual Map's status to public	2022-2-13
Mitch S Canciano updated Research 15's status to public	2022-2-13
Mitch S Canciano updated Research 21's status to public	2022-2-13
Mitch S Canciano updated Research 19's status to public	2022-2-13
Mitch S Canciano updated Research 18's status to public	2022-2-13
Mitch S Canciano updated Research 17's status to public	2022-2-13
Mitch S Canciano updated Research 16's status to public	2022-2-13
Mitch S Canciano updated Research 15's status to public	2022-2-13
Mitch S Canciano updated Research 14's status to public	2022-2-13
Mitch S Canciano updated Research 13's status to public	2022-2-13
Mitch S Canciano updated Research 12's status to public	2022-2-13
Mitch S Canciano updated Research 11's status to public	2022-2-13
Mitch S Canciano updated Research 10's status to public	2022-2-13
Mitch S Canciano updated Research 9's status to public	2022-2-13

SCS Research Coordinator (System Administrator) Archive Activity Logs

- a. Activity Search bar- allows to filter result according to date and activities that the user wishes to find.

Edit Profile Details

Username: ChoyAdmin → f

Contact No: 09489771990 → g

Email Address: mitchsaudenio@gmail.com → h

First Name: Mitch → b

Middle Initial: S → c

Last Name: Canciano → d

Extention Name: → e

Reg. Date: 24-4-1970 → j

password → i

Save Changes

See All

Change Coordinator

SCS Research Coordinator (System Administrator) Edit Profile

- Choose file button (upload pic) - allows to attach picture
- First name input box- allows to input first name of the SCS Research Coordinator (System Administrator)
- Middle name input box- allows to input middle name of the SCS Research Coordinator (System Administrator)
- Last name input box- allows to input last name of the SCS Research Coordinator (System Administrator)
- Name Extension input box- allows to input name extension the SCS Research Coordinator (System Administrator)
- Username input box- allows to input username of the SCS Research Coordinator (System Administrator)
- Contact number input box- allows to input contact number of the SCS Research Coordinator (System Administrator)

- h. Email Address input box- allows to input email address of the SCS Research Coordinator (System Administrator)
- i. Password input box- allows to input password of the SCS Research Coordinator (System Administrator)
- j. Cancel button- cancel registration of SCS Research Coordinator (System Administrator)

Welcome Mr./Ms. Coordinator

Coordinator's Profile

Activity Logs

Mitch S Canciano updated Research 16's status to archive	2022-2-6
Mitch S Canciano updated Research 15's status to archive	2022-2-6
Mitch S Canciano updated Research 11's status to archive	2022-2-6

Change Password

a

b

c

d

Save

SCS Research Coordinator (System Administrator) Change Password

- a. current password input box – allows to enter current password
- b. new password input box - allows to enter new password
- c. confirm new password – double checks new password entry
- d. save button- allows to save new password

The screenshot shows a registration form titled "Register New Coordinator". The form includes the following fields and controls:

- Profile Picture:** A placeholder box with a "Choose File" button and a message "No file chosen". This is circled with a red circle labeled "a".
- Personal Information:**
 - Username: Input box (labeled "b")
 - Password: Input box (labeled "c")
 - First Name: Input box (labeled "d")
 - Middle Initial: Input box (labeled "e")
 - Last Name: Input box (labeled "f")
 - Name Extension: Input box (labeled "g")
- Contact Details:**
 - Birth Date: Input box with a date picker icon (labeled "h")
 - Contact No.: Input box (labeled "i")
 - Email Address: Input box (labeled "j")
 - Date Registered: Pre-filled value "2-6-2022" (labeled "k")
- Action Buttons:**
 - Cancel button (labeled "l")
 - Register button (labeled "m")

SCS Research Coordinator (System Administrator) Register New Coordinator

- Choose file button (upload pic) - allows to attach picture
- Username input box- allows to input username of the SCS Research Coordinator (System Administrator)
- Password input box- allows to input password of the SCS Research Coordinator (System Administrator)
- First name input box- allows to input first name of the SCS Research Coordinator (System Administrator)
- Middle name input box- allows to input middle name of the SCS Research Coordinator (System Administrator)
- Last name input box- allows to input last name of the SCS Research Coordinator (System Administrator)
- Name Extension input box- allows to input name extension the SCS Research Coordinator (System Administrator)

- h. Birthday/Calendar- allows to select birthdate of MIS Officer from the calendar
- i. Contact number input box- allows to input contact number of the SCS Research Coordinator (System Administrator)
- j. Email Address input box- allows to input email address of the SCS Research Coordinator (System Administrator)
- k. Cancel button- cancel registration of SCS Research Coordinator (System Administrator)
- l. Register button – allows to register new SCS Research Coordinator (System Administrator) account

Welcome Mr./Ms. Coordinator

Enter first name or last name

Deactivated Coordinator's Account

Username	Password	Coordinator's Name	Birthday	Contact No.	Email	Date
AdminChoy	admin2710	Choy S Canciano	29-11-2021	09772741036	mitchsaudenio@gmail.com	24-12-2021
Admin.Mitch	mitch123	Mitch S Canciano	27-10-1999	09489771990	choykun27@gmail.com	24-12-2021
Mitch2710	admin271099	Mitch S Canciano	27-10-1999	09489771990	choykun27@gmail.com	24-12-2021
AdminMarcky	macky123	Marcky S Canciano	15-8-2006	09489771990	marcky_canciano@gmail.com	5-1-2022
MackyCoor	macky123	Marcky S Canciano	15-8-2006	08489771990	macky123@gmail.com	8-1-2022
Macky123	admin123	Marcky S Canciano	15-8-2006	09489771990	macky123@gmail.com	21-1-2022
Choy123	admin234	Mitch S Canciano	27-10-1999	09772741034	mitchsaudenio@gmail.com	21-1-2022
asdf	asdf	Marcky S Canciano	15-8-2006	09489771990	macky123@gmail.com	21-1-2022

SCS Research Coordinator (System Administrator) Change Active Coordinator

- Activate button- if a need for previous SCS Research Coordinator (System Administrator) to use the system. He/she has a record in the system which can be activated again if needed replacing the current active SCS Research Coordinator (System Administrator)

Welcome Mr./Ms. Coordinator

Enter first name or last name

Activated Student's Account

StudentNo	Student Name	Sex	Birth Date	Course,Year and Section	Reg. Date
1801025	Canciano, Mitch S	Male	27-10-1999	BSCS 4-1	6-12-2021
1801026	Palabyab, Steven Charles P	Male	28-11-2021	BSIT 3-2	16-12-2021
1801027	Dacalose, Mary Rose Anne M	Female	29-8-2021	BSCS 4-1	16-12-2021
1801030	Maunahan, Judy Anne Mae M	Female	1-8-2021	BSCS 4-1	16-12-2021
1801031	Tranca, Bryan M	Male	31-1-2021	BSIT 4-1	16-12-2021
101032	Marmo, Shawn L	Female	30-5-2021	BSIT 4-1	16-12-2021
1801033	Calanog, Ayhescka Mae P	Female	29-8-2021	BSIT 4-1	16-12-2021
1801019	Canciano, Mio S	Female	23-2-2021	BSIT 4-1	8-1-2022
1801132	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-1	1-1-1970
1234	das,asd zxc	Male	26-12-2021	BSIT 4-3	18-1-2022
117013	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-7	18-1-2022
1370713	Canciano, Marcky S	Male	15-8-2006	BSIT 4-7	19-1-2022

a Deactivated **b** Researches

SCS Research Coordinator (System Administrator) Activated Student List

- Deactivated button- allows to view deactivated Students Account
- Researches button- allows to view list of approved full content research access of a selected student

Welcome Mr./Ms. Coordinator

Enter first name or last name

Deactivated Student's Account

StudentNo	Student Name	Sex	Birth Date	Course,Year and Section	Reg. Date
1801034	Calugay, Justine Marc M	Male	1-8-2021	BSIT 2-4	16-12-2021
1801035	Josafat, Albert Joseph B	Male	1-8-2021	BSIT 4-4	16-12-2021
1801036	Ogatis, Klouney A	Female	25-4-2021	BSCS 3-5	16-12-2021
1801037	Canciano, Marcky S	Male	15-8-2006	BSCS 4-2	17-12-2021
1801024	Centeno, Andrea Mae C	Female	2-5-2021	BSCS 4-3	17-12-2021
1801011	Tuazon, Zyra N	Female	29-8-2021	BSCS 4-3	5-1-2022

a Activated

SCS Research Coordinator (System Administrator) Inactive Student List

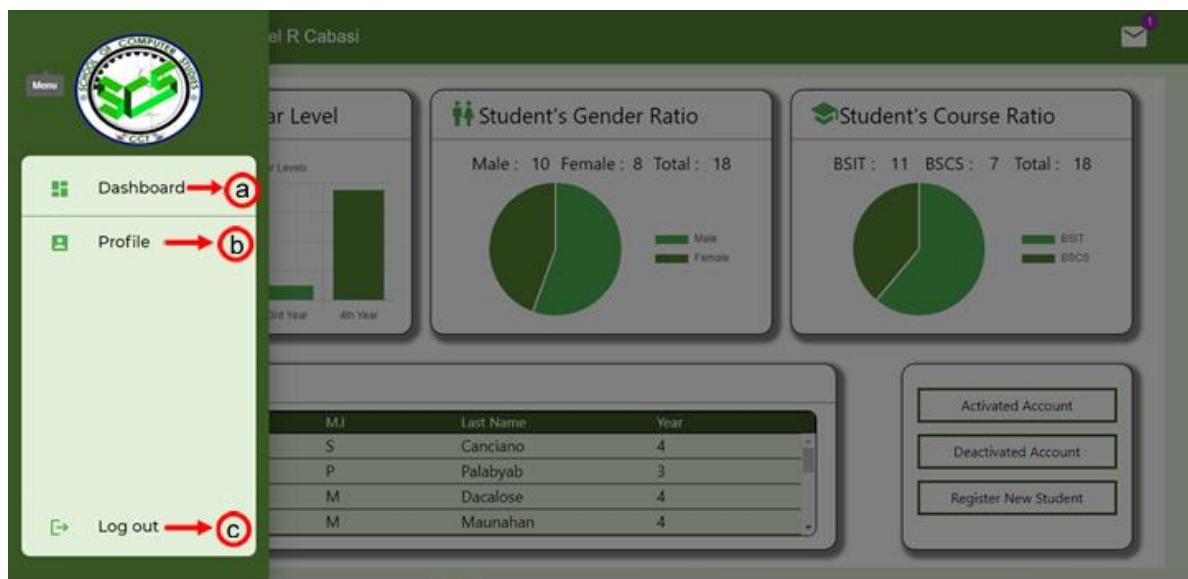
- Activated button- Shows list of Activated Student Account

Mitch S Canciano's Approved Researches

Title	Course	ResearchCategories	Year Submitted	Date Approved	Remove
Research 8	BSIT	Game Dev, Hardware	2005	2022-1-6	
Research 12	BSCS	Hardware, Mobile App	2006	2022-1-6	
Research 15	BSIT	Hardware, Augmented Reality	2004	2022-1-6	
Research 16	BSCS	Augmented Reality, Game Dev	2009	2022-1-6	
Research 19	BSIT	Web System, Augmented Reality	2010	2022-1-6	

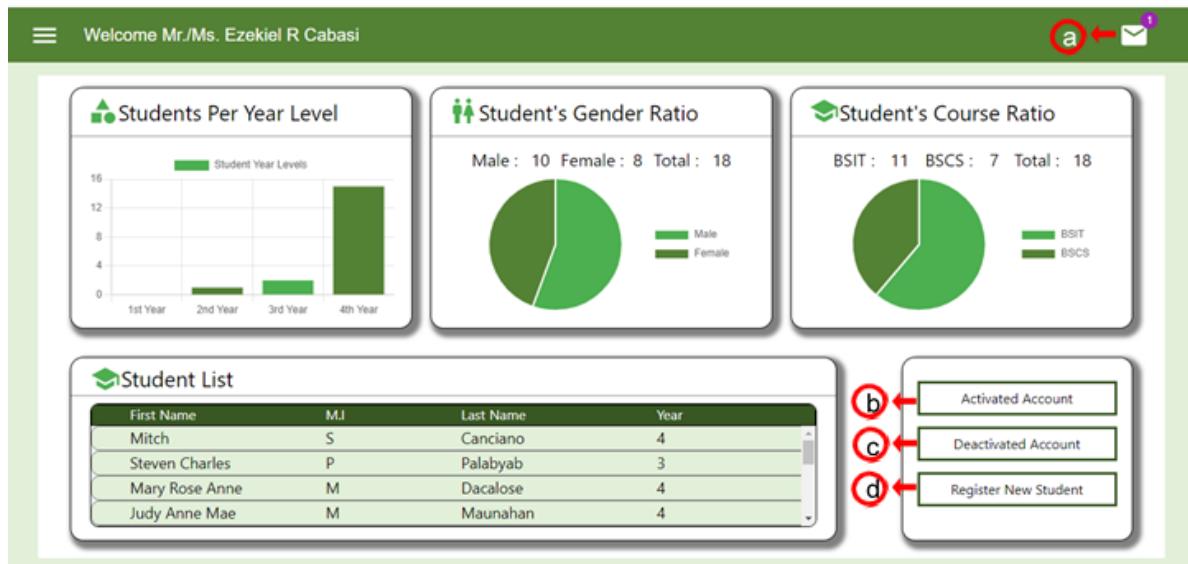
SCS Research Coordinator (System Administrator) Student Approved List

- a. Remove button- allows the SCS Research Coordinator (System Administrator) to remove the full content access of the selected SCS Student on particular research.



MIS Officer Menu

- a. Dashboard (menu option) - allows to comeback or display MIS Officer Dashboard
- b. Profile (menu option)-allows to review profile information of the MIS Officer
- c. Log out – logs the SCS Research Coordinator (System Administrator) out of the system



MIS Officer Dashboard

- MIS Officer Notification Inbox - shows notification about SCS Students request for password reset
- Activated Account button – allows to shift to the activated Student Account Page
- Deactivated Account button – allows to shift to the deactivated Student Account Page
- Register New Student button – allows to shift to the registration page for new student account on the system

The screenshot shows a dashboard with the following components:

- Welcome Mr./Ms. Ezekiel R Cabasi**: Greeting message.
- Students Per Year Level**: Bar chart showing student distribution by year level.

Year Level	Count
1st Year	1
2nd Year	2
3rd Year	3
4th Year	14
- Student's Gender**: Pie chart showing male and female student distribution.

Gender	Count
Male	10
Female	10
- Student List**: Table listing student names, M.I., and Last Name.

First Name	M.I.	Last Name
Mitch	S	Canciano
Steven Charles	P	Palabyab
Mary Rose Anne	M	Decalose
Judy Anne Mae	M	Maunahan
- Inbox**: A list of messages with a header and a table.

Inbox Table Headers: Message, Date

Inbox Content:

Message	Date
Student 1801025 has requested to reset their password. please send an email at mitch.canciano@citycollegeoftagaytay.edu.ph to notify them	2022-2-2

Annotations:

- A red circle labeled **a** points to the message content area.
- A red circle labeled **b** points to the **Clear Messages** button.

MIS Officer Inbox

- Messages by the student for request for a password reset
- Clear Messages button, allows you to delete inbox content

Activated Student's Account

<input type="checkbox"/> Select All	StudentNo	Student Name	Sex	Birth Date	Course,Year and Section	Reg. Date	Reset
<input type="checkbox"/>	1801025	Canciano, Mitch S	Male	27-10-1999	BSCS 4-1	6-12-2021	
<input type="checkbox"/>	1801026	Palabyab, Steven Charles P	Male	28-11-2021	BSIT 3-2	16-12-2021	
<input type="checkbox"/>	1801027	Dacalose, Mary Rose Anne M	Female	29-8-2021	BSCS 4-1	16-12-2021	
<input type="checkbox"/>	1801030	Maunahan, Judy Anne Mae M	Female	1-8-2021	BSCS 4-1	16-12-2021	
<input type="checkbox"/>	1801031	Tranca, Bryan M	Male	31-1-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	101032	Marmo, Shawn L	Female	30-5-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	1801033	Calanog, Ayhescka Mae P	Female	29-8-2021	BSIT 4-1	16-12-2021	
<input type="checkbox"/>	1801019	Canciano, Mio S	Female	23-2-2021	BSIT 4-1	8-1-2022	
<input type="checkbox"/>	1801132	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-1	1-1-1970	
<input type="checkbox"/>	1234	das, asd zxc	Male	26-12-2021	BSIT 4-3	18-1-2022	
<input type="checkbox"/>	117013	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-7	18-1-2022	
<input type="checkbox"/>	4330343	Canciano, Mio S	Male	27-10-1999	BSIT 4-7	18-1-2022	

MIS Officer Active Student

- a. Search Bar- where the MIS Officer input first name or last name of the SCS Student that he/she wants to find
- b. Search filter button- allows the MIS Officer to use search filters
- c. Deactivate button- allows to move deactivated SCS Student
- d. Edit button- allows to edit SCS Student account details such as advance year level, change course and change section
- e. Reset Password button- allows to reset password of SCS Student

The screenshot shows a web-based application interface for managing student accounts. At the top, there is a green header bar with the text "Welcome Mr./Ms. Ezekiel R Cabasi". Below the header is a search bar with the placeholder "Enter first name or last name". The main content area displays a table titled "Activated Student's Account" with the following columns: "Select All", "StudentNo", "Student Name", "Sex", "Birth Date", and "Course,Year". The table lists several student records, such as:

Select All	StudentNo	Student Name	Sex	Birth Date	Course,Year
<input type="checkbox"/>	1801025	Canciano, Mitch S	Male	27-10-1999	BSCS
<input type="checkbox"/>	1801026	Palabyab, Steven Charles P	Male	28-11-2021	BSIT
<input type="checkbox"/>	1801027	Dacalose, Mary Rose Anne M	Female	29-8-2021	BSCS
<input type="checkbox"/>	1801030	Maunahan, Judy Anne Mae M	Female	1-8-2021	BSCS
<input type="checkbox"/>	1801031	Tranca, Bryan M	Male	31-1-2021	BSIT
<input type="checkbox"/>	101032	Marmo, Shawn L	Female	30-5-2021	BSIT
<input type="checkbox"/>	1801033	Calanog, Ayhescka Mae P	Female	29-8-2021	BSIT
<input type="checkbox"/>	1801019	Canciano, Mio S	Female	23-2-2021	BSIT
<input type="checkbox"/>	1801132	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-1
<input type="checkbox"/>	1234	das, asd zxc	Male	26-12-2021	BSIT 4-3
<input type="checkbox"/>	117013	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-7

 To the right of the table is a "Filters:" panel with the following options:

- Course: all → (a)
- Section: (input box) → (b)
- Sex: all → (c)
- Year: all → (d)
- Sort from: A-Z → (e)
- Filter button (green box) → (f)

MIS Officer Activated Student Account Filter

- a. Course filter drop down – allows to select between BSIT, BSCS or all courses
- b. Section filter input box- allows to input section SCS Student
- c. Sex filter drop down – allows to select between male and female
- d. Year level filter input box- allows to filter between 1st, 2nd, 3rd, 4th or all year level of SCS Student
- e. Sorting Option- allows to select whether to show search result alphabetically or alphabetically reverse
- f. Sort by Year Option- allows to sort published research in ascending or descending order
- g. Sort filter potion – allows to sort result alphabetically or alphabetically reverse
- h. Filter button- Allows to apply search filters and to view the search results

Deactivated Student's Account

<input type="checkbox"/> Select All	StudentNo	Student Name	Sex	Birth Date	Course,Year and Section	Reg. Date
<input type="checkbox"/>	1801034	Calugay, Justine Marc M	Male	1-8-2021	BSIT 2-4	16-12-2021
<input type="checkbox"/>	1801035	Josafat, Albert Joseph B	Male	1-8-2021	BSIT 4-4	16-12-2021
<input type="checkbox"/>	1801036	Ogatis, Klouney A	Female	25-4-2021	BSCS 3-5	16-12-2021
<input type="checkbox"/>	1801037	Canciano, Marcky S	Male	15-8-2006	BSCS 4-2	17-12-2021
<input type="checkbox"/>	1801024	Centeno, Andrea Mae C	Female	2-5-2021	BSCS 4-3	17-12-2021
<input type="checkbox"/>	1801011	Tuazon, Zyra N	Female	29-8-2021	BSCS 4-3	5-1-2022

MIS Officer Inactive Student.

- Activate button- allows to activate account of selected SCS student

Activated Student's Account

<input type="checkbox"/> Select All	StudentNo	Student Name	Sex	Birth Date	Course,Year
<input type="checkbox"/>	1801025	Canciano, Mitch S	Male	27-10-1999	BSIT
<input type="checkbox"/>	1801026	Palabyab, Steven Charles P	Male	28-11-2021	BSIT
<input type="checkbox"/>	1801027	Dacalose, Mary Rose Anne M	Female	29-8-2021	BSIT
<input type="checkbox"/>	1801030	Maunahan, Judy Anne Mae M	Female	1-8-2021	BSIT
<input type="checkbox"/>	1801031	Tranca, Bryan M	Male	31-1-2021	BSIT
<input type="checkbox"/>	101032	Marmo, Shawn L	Female	30-5-2021	BSIT
<input type="checkbox"/>	1801033	Calanog, Ayhescka Mae P	Female	29-8-2021	BSIT
<input type="checkbox"/>	1801019	Canciano, Mio S	Female	23-2-2021	BSIT
<input type="checkbox"/>	1801132	Saudenio, Mitch L	Male	27-10-1999	BSIT
<input type="checkbox"/>	1234	das, asd zxc	Male	26-12-2021	BSIT 4-3
<input type="checkbox"/>	117013	Saudenio, Mitch L	Male	27-10-1999	BSIT 4-7

MIS Officer Edit Student Details.

- Advance Year level button- allows to advance year level of selected SCS Student
- Student
- Change Course button- allows to change course of selected SCS Student
- Change Section button- allows to change section selected SCS Student

Welcome Mr./Ms. Ezekiel R Cabasi

Register New Student

Student ID:	<input type="text"/> → a	Select Course:	<input type="text"/> BSIT → g
First Name:	<input type="text"/> → b	Year Level:	<input type="text"/> 1 → h
Middle Initial:	<input type="text"/> → c	Sex:	<input type="text"/> Male → i
Last Name:	<input type="text"/> → d	Section:	<input type="text"/> → j
Name Extension:	<input type="text"/> → e	Date Registered:	2-6-2022
Birth Date	<input type="text"/> mm/dd/yyyy → f	Note: Default password for each account will be last name + 123 Example: Garcia123	
<input type="button" value="Register"/> → k			

MIS Officer Registration of Student

- a. Student ID input box- allows to input username of the SCS Research Coordinator (System Administrator)
- b. First name input box- allows to input first name of the SCS Student
- c. Middle name input box- allows to input middle name of the SCS Student
- d. Last name input box- allows to input last name of the SCS Student
- e. Name Extension input box- allows to input name extension the SCS Research Coordinator (System Administrator)
- f. Birthday/Calendar- allows to select birthdate of the SCS Student from the calendar
- g. Course drop down button- allows to choose the course of SCS Student between BSIT or BSCS
- h. Year drop down button- allows to set yr level of SCS Student
- i. Sex drop down-allows to identify sex of SCS Student
- j. Section input box - allows to identify section of SCS Student
- k. Register button – allows to register new SCS Student account

The screenshot shows a user profile page for 'Mr./Ms. Ezekiel R Cabasi'. The top bar displays the welcome message and a mail icon. The left panel contains a placeholder profile picture and account information: Name: Ezekiel R Cabasi, Birthday: 12-10-2001, Contact No.: 09489771990, Email Address: kielCabasi@gmail.com, and Date Registered: 21-12-2021. Below this are two buttons: 'Edit Details' and 'Change Password', each with a red circle and a letter 'a' or 'b' indicating they are clickable. The right panel is titled 'Activity Logs' and lists recent updates with dates: You updated 1801011's status to inactive (2022-2-3), You updated 1801024's status to inactive (2022-2-3), You updated 1801037's status to inactive (2022-2-3), You updated 1801036's status to inactive (2022-2-3), You updated 1801035's status to inactive (2022-2-3), You updated 1801034's status to inactive (2022-2-3), You updated 1370713's status to active (2022-1-25), You updated 117013's status to active (2022-1-25), You updated 1234's status to active (2022-1-25), You updated 1801132's status to active (2022-1-25), You updated 1801019's status to active (2022-1-25), and You updated 1801011's status to active (2022-1-25). A 'See All' button is located at the bottom right of the log panel, with a red circle and a letter 'c' indicating it is clickable.

MIS Officer Profile.

- a. Edit details button- allows to edit account information of the MIS Officer
- b. Change password button- allows to change password of the MIS Officer
- c. Activity log See all Button- allows to view all activities made by the MIS Officer

Edit Profile Details

Contact No: 09489771990 → f

Email Address: kielCabasi@gmail.com → g

First Name: Ezekiel → b

Middle Initial: R → c

Last Name: Cabasi → d

Extention Name: → e

password → h

Reg. Date: 20-12-2021 → i

Save Changes

status to inactive 2022-2-3
status to active 2022-1-25
status to active 2022-1-25
status to active 2022-1-25
status to active 2022-1-25
status to active 2022-1-25

See All

MIS Officer Edit Own Profile.

- Choose file button- allows the MIS Officer to upload/update their profile picture
- First name input box- allows the MIS Officer to make modification on his registered first name in case it was misspelled
- Middle name input box- allows the MIS Officer to make modification on his registered middle name in case it was misspelled
- Last name input box- allows the MIS Officer to make modification on his registered last name in case it was misspelled
- Name Extension input box- allows the MIS Officer to make modification on his registered last name in case it was misspelled
- Contact number input box- allows the MIS Officer to make modification on his registered contact number
- Email Address input box- allows the MIS Officer to make modification on his registered email address in case it was misspelled

- h. Password input box- where MIS Officer input his password before he/she clicks the save button that allows to make changes in his profile information
- i. Save button- allows to system to check password of the MIS Officer in order to confirm all modifications that has been made; once the MIS Officer inputs the correct password, all changes in their profile information will be saved.

MIS Officer Change Password.

- a. Current Password input box- Allows to enter the current password of the MIS Officer for the purpose of changing his password
- b. New Password input box- Allows to enter the new password of the MIS Officer
- c. Confirm New Password input box- Allows to confirm the new password entered by the MIS Officer

- d. Saved button- Validate password entered and once correct information has been provided new password will be saved.

Activity	Date
You updated 1801011's status to inactive	2022-2-3
You updated 1801024's status to inactive	2022-2-3
You updated 1801037's status to inactive	2022-2-3
You updated 1801036's status to inactive	2022-2-3
You updated 1801035's status to inactive	2022-2-3
You updated 1801034's status to inactive	2022-2-3
You updated 1370713's status to active	2022-1-25
You updated 170713's status to active	2022-1-25
You updated 1234's status to active	2022-1-25
You updated 1801132's status to active	2022-1-25
You updated 1801019's status to active	2022-1-25
You updated 1801011's status to active	2022-1-25
You updated 1801024's status to active	2022-1-25
You updated 1801037's status to active	2022-1-25
You updated 1801036's status to active	2022-1-25
You updated 1801035's status to active	2022-1-25
You updated 1801034's status to active	2022-1-25

MIS Officer Activity Logs.

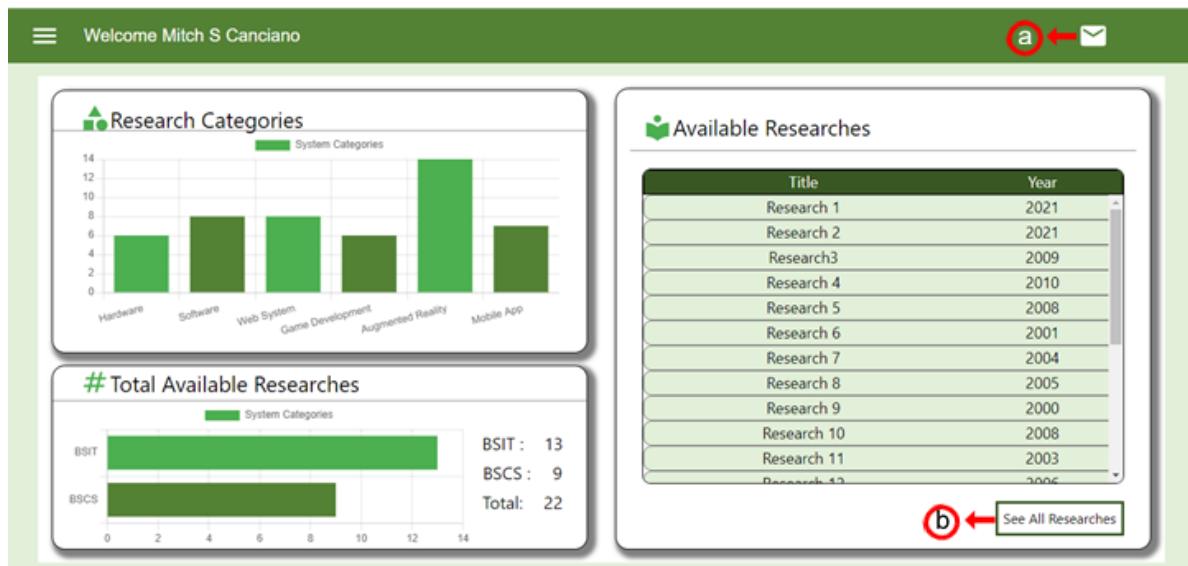
- a. Clear log button- allows the MIS officer to clear his activity logs in their account

Title	Year
Research 1	2021
Research 2	2021
Research 3	2009
Research 4	2010
Research 5	2008
Research 6	2001
Research 7	2004
Research 8	2005
Research 9	2000
Research 10	2008
Research 11	2003
Research 12	2006

SCS Student Menu

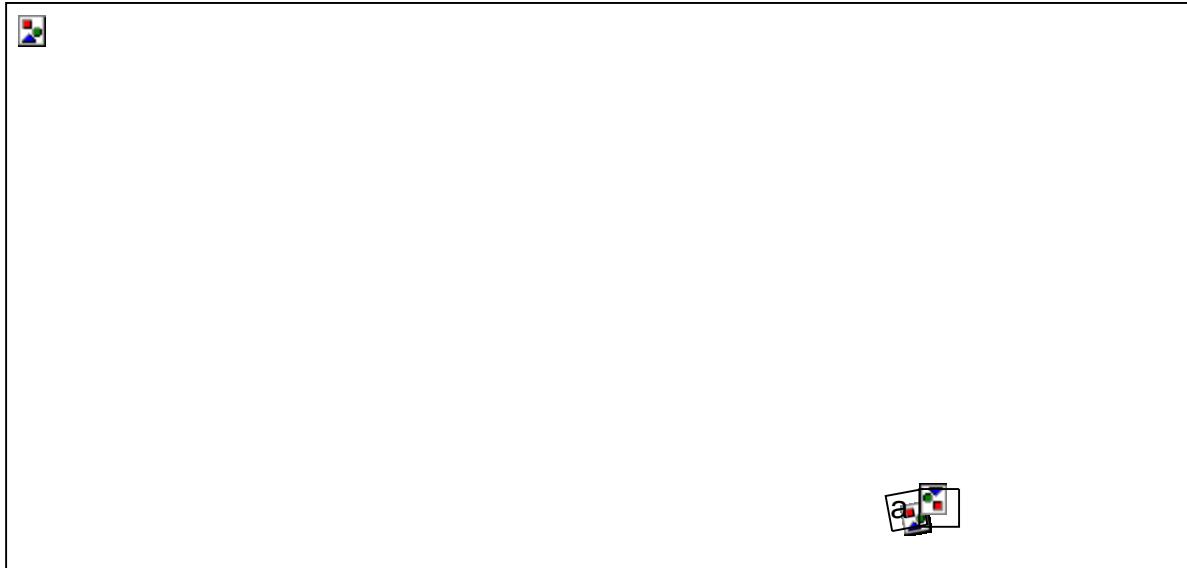
- a. Dashboard button(menu option) – allows SCS Student to go back/ or view the SCS Student Dashboard

- b. Profile button (menu option) – allows to view the profile information of the SCS Student
- c. Log out button (menu option) – allows SCS Student to log out of the system



SCS Student Dashboard.

- a. SCS Student Notification inbox- allow the SCS Student view notifications such as accepting or declining of request to view full content of a research made and revoking full content access once decided by the SCS Research Coordinator(System Administrator)
- b. See All Research button- allows the SCS Student to view all Research Abstract available on the system.



SCS Student Inbox.

- a. Clear Messages- Allows the SCS Student to clear inbox messages from the SCS Student Notification Inbox

Title	Research Categories	Year	View Details	Request
Research 1	Hardware, Software	2021		
Research 2	Hardware, Web System	2021		
Research 3	Software, Game Dev	2009		
Research 4	Software, Augmented Reality	2010		
Research 5	Mobile App, Game Dev	2008		
Research 6	Web System, Augmented Reality	2001		
Research 7	Web System, Game Dev	2004		
Research 8	Game Dev, Hardware	2005		
Research 9	Game Dev, Augmented Reality	2000		
Research 10	Software, Web System	2008		
Research 11	Software, Mobile App	2003		
Research 12	Hardware, Mobile App	2006		

SCS Student Research List

- a. Search Bar- where the SCS Student to input title of a research that he/she wants to find
- b. Search filter button- allows the SCS Research Coordinator (System Administrator) to use search filters
- c. View details button- allows to check information about a Research such as Research category, year published and authors
- d. Request button- allows to make a request to access full content of a particular research

Available Researches

Title	Research Category
Research 1	Hardware, Software
Research 2	Hardware, Web System
Research 3	Software, Game Dev
Research 4	Software, Augmented
Research 5	Mobile App, Game
Research 6	Web System, Augmented
Research 7	Web System, Game
Research 8	Game Dev, Hardware
Research 9	Game Dev, Augmented Reality
Research 10	Software, Web System
Research 11	Software, Mobile App
Research 12	Hardware, Mobile App

Filters:

- Course: all → **a**
- Year: ex. 2001 → **b**
- Sort from: A-Z → **c**
- Research Categories:
 - Hardware → **d**
 - Software
 - Web System
 - Game Dev
 - Augmented Reality
 - Mobile App
- Filter → **e**

SCS Student Research Filter

- a. Course drop down button- allows SCS Student to select between BSIT and CS
- b. Sort by Year Option- allows SCS Student to sort published research in ascending or descending order
- c. Sorting Option- allows SCS Student to select whether to show search result alphabetically or alphabetically reverse
- d. Research Category Selection box- allows to manually select category of research
- e. Filter button- Allows to apply search filters and to view the search results

The screenshot displays the SCS Student Profile interface. At the top, a green header bar shows the welcome message "Welcome Mitch S Canciano". Below the header, there are two main sections: "Number of Requested Research" and "Activity Logs".

Number of Requested Research:

Number of Requested Research	
Pending requested researches	0
Approved requested researches	6

Activity Logs:

Activity Logs	
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20

Annotations with red circles and arrows point to specific buttons:

- a** points to the "Update" button located at the bottom right of the left panel.
- b** points to the "View List" button located at the bottom right of the "Number of Requested Research" panel.
- c** points to the "See All" button located at the bottom right of the "Activity Logs" panel.

SCS Student Profile

- a. Update button- allows SCS Student to shift to the page where SCS Student can update their Profile
- b. View List button – allows SCS Student to view list of approved and pending research
- c. See all button – allows SCS Student to view their history of all activities made in their account

Welcome Mitch S Canciano

Number of Requested Research

Pending requested researches 3

Approved requested researches 6

Change Password

Only MIS officers are allowed to edit your information, you can only update your password

a ← Current password b c →

Save → d

SCS Student Change Password

- a. Current Password input box- Allows to enter the current password of the SCS Student for the purpose of changing his password
- b. New Password input box- Allows to enter the new password of the SCS Student
- c. Confirm New Password input box- Allows to confirm the new password entered by the SCS Student
- d. Saved button- Validate password entered by SCS Student and once correct information has been provided, the new password will be saved.

Title	Research Categories	Year Submitted	View Details
Research 1	Hardware, Software	2021	<input type="button" value="View Details"/>
Research3	Software, Game Dev	2009	<input type="button" value="View Details"/>
Research 6	Web System, Augmented Reality	2001	<input type="button" value="View Details"/>

SCS Student Pending Requested Research

- a. Approved Requests button- Allows to SCS Student to shift to Approved Request Page and check their list of Approved viewing of a research full content access request
- b. View Button- Allows to view the abstract of research in pending request

ABSTRACT

Lecture scheduling is a very important process in any educational institution. It is an optimization problem that can be solved by using Genetic Algorithm. This is a hard "NP" problem so that some constraints are satisfied. It constitutes a class of difficult-to-solve optimization problems that lack a analytical solution method. Due to the complexity of the problem, it is hard to find a good solution. Therefore, a system was developed for the improved timetable system. Literature review was carried out to search the best approach that can help to solve the problem in the timetable system. The system was developed using Java programming language and MySQL Database. Thus it because Genetic Algorithms is able to produce a feasible timetable system. Java, XML and PHP programming languages were used in developing the solution. MySQL Database was used as the database for the solution. The final system is a web-based application that can be used in different operating systems for easier accessibility and portability to users.

SCS Student Research Abstract

Abstract view of the selected research for Students who doesn't have access to the content

The screenshot shows a web application interface titled "Approved Requested Researches". At the top right, there is a button labeled "Pending Requests" with a red circle and arrow "a" pointing to it. Below the table, there is a "View" button with a red circle and arrow "b" pointing to it. The table lists five research projects:

Title	Research Categories	Year Submitted	Date Approved	View
Research 8	Game Dev, Hardware	2005	2022-1-6	[View]
Research 12	Hardware, Mobile App	2006	2022-1-6	[View]
Research 15	Hardware, Augmented Reality	2004	2022-1-6	[View]
Research 16	Augmented Reality, Game Dev	2009	2022-1-6	[View]
Research 19	Web System, Augmented Reality	2010	2022-1-6	[View]

SCS Student Approved Requested Research

- Pending Requests button- Allows to SCS Student to shift to Pending Request Page and check their list of pending Request
- View Button- Allows to view the full content of Approved Research full content access

The screenshot shows a "Strict Reminder" dialog box in the foreground, containing a warning message about document ownership and restrictions. At the bottom of the dialog are "Cancel" and "Yes" buttons, with a red circle and arrow "a" pointing to "Cancel" and another red circle and arrow "b" pointing to "Yes". In the background, there is a detailed panel for a specific research project titled "Research Information System". The panel includes fields for Title, Course, Categories, Authors, and a "View Document" button.

Research Information System

- Title: Research Information System
- Course: BSIT
- Categories: Software, Web System
- Authors:
 - Mitch Canciano
 - Bryan Tranca
 - John Shariff Reyes
 - Judy Ann Mae Maunahan
- Year Submitted: 2022

SCS Student Research Strict reminder

- Cancel button- Exit the strict reminder and won't proceed to the viewing of the full content of the research pdf

- b. Ok button- This indicates that you agree to the reminder and proceed to view the full content of the research.



SCS Student Research Full Content

- a. Scroll Bar – Navigate to view Research pages. You can't download or copy the text in this research full content.

SCS Student Change Password

- a. Current Password input box- Allows to enter the current password of the SCS Student for the purpose of changing his password

- b. New Password input box- Allows to enter the new password of the SCS Student
- c. Confirm New Password input box- Allows to confirm the new password entered by the SCS Student
- d. Saved button- Validate password entered by SCS Student and once correct information has been provided, the new password will be saved.

Activity	Date
You requested Research 6 for full content viewing	2022-2-6
You requested Research 1 for full content viewing	2022-2-6
You requested Research3 for full content viewing	2022-2-6
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20
You requested Research 4 for full content viewing	2022-1-20
You requested Research 1 for full content viewing	2022-1-20
You requested Research 9 for full content viewing	2022-1-20
You requested Research 7 for full content viewing	2022-1-20

SCS Student Activity Logs

- a. Clear Logs button- Allows to clear activity log of the Student

Appendix D: Test Result

Unit Testing

Login Window		
Function	Status	Date Tested
Login as Student	working	February 9, 2022
Login as MIS officer	working	February 9, 2022
Login as Admin		February 9, 2022
Deny access to unauthorized users	working	February 9, 2022
Send message on MIS officer inbox when requesting for password reset	working	February 9, 2022

Student Window		
Function	Status	Date Tested
Disable Requested/Approved Request	working	February 9, 2022
Send Request for full content of research	working	February 9, 2022
View the Abstract page only if the research is not yet approved	working	February 9, 2022
Searching research titles on search bar	working	February 9, 2022
Filtering research titles based on categories	working	February 9, 2022
Filter categories based on year	working	February 9, 2022
Remove filter on researches	working	February 9, 2022
Updating of activity logs every activity done in the system	working	February 9, 2022
Clearing Logs	working	February 9, 2022
Changing of password	working	February 9, 2022
Requested researches are on pending list	working	February 9, 2022
Approved researches are on approved list	working	February 9, 2022
Must check "Yes, I understand" on reminder before accessing full content	working	February 9, 2022
Can view full content on approved researches	working	February 9, 2022

Inbox can receive messages from Coordinator and MIS officer	working	February 9, 2022
Clear messages on inbox	working	February 9, 2022

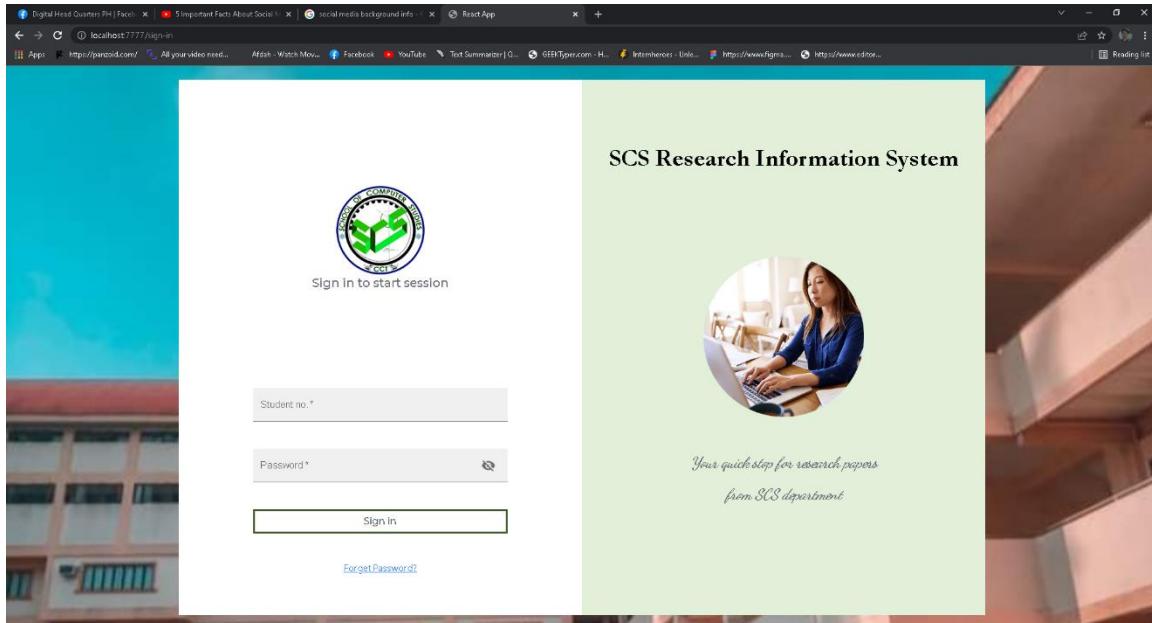
MIS Officer Window

Function	Status	Date Tested
Search for student's first name or last name	working	February 9, 2022
Filter students using course, section, sex, and year	working	February 9, 2022
remove filter	working	February 9, 2022
Activating deactivated student accounts	working	February 9, 2022
Deactivating activated student accounts	working	February 10, 2022
Multiple deactivation using select all on filtered and searched data	working	February 10, 2022
Multiple activation using select all on filtered and searched data	working	February 10, 2022
Multiple updating of section using select all and checkbox on filtered and searched data	working	February 10, 2022
Multiple updating of course using select all and checkbox on filtered and searched data	working	February 10, 2022
Multiple advancement of year level using select all and checkbox on filtered and searched data	working	February 10, 2022
Registration of new student	working	February 10, 2022
Inbox receiving message request from students to reset password	working	February 10, 2022
Clear messages on inbox	working	February 10, 2022
Updating of profile details	working	February 10, 2022
Uploading profile image	working	February 10, 2022
Changing password	working	February 10, 2022
Activity logs records all activities of the user	working	February 10, 2022
Clearing of logs	working	February 10, 2022

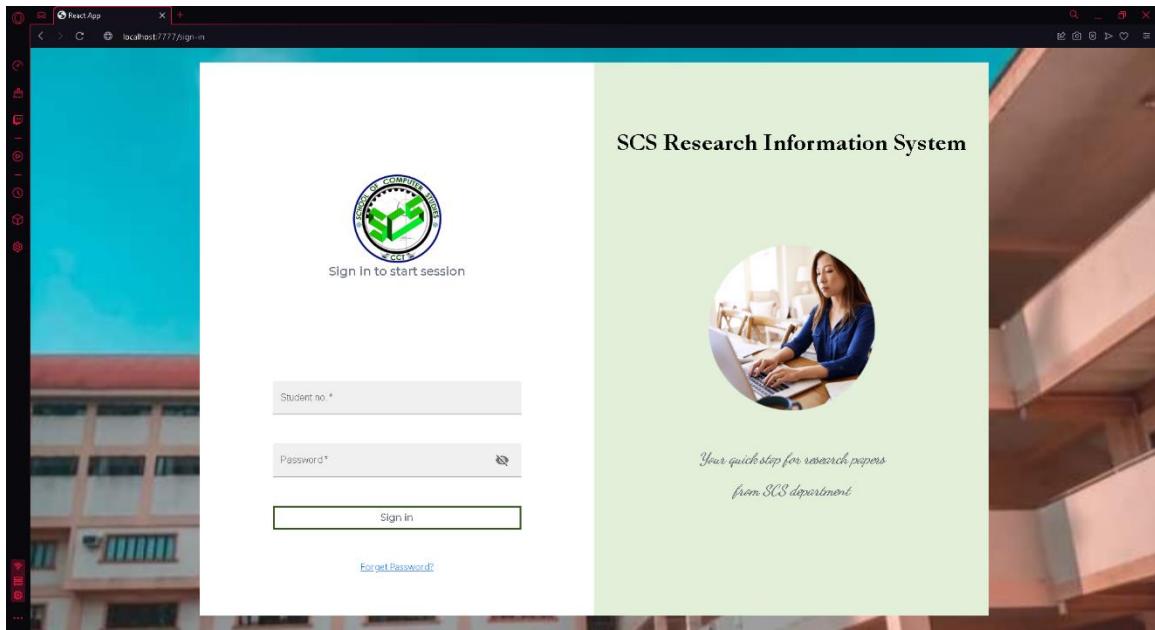
Performance Testing

Browser	Findings	Date Tested
Google Chrome	Runs smoothly	February 10, 2022
Opera GX	Runs smoothly	February 10, 2022
Microsoft Edge	Runs properly, server seldom hangs up	February 10, 2022
Mozilla Firefox	Runs smoothly, some colors are changed from the original design, UI is much smaller than the original size	February 10, 2022
UC Browser	Doesn't work on this browser	February 10, 2022
Opera Browser	Runs smoothly, some colors are changed from the original design, UI is much smaller than the original size	February 10, 2022

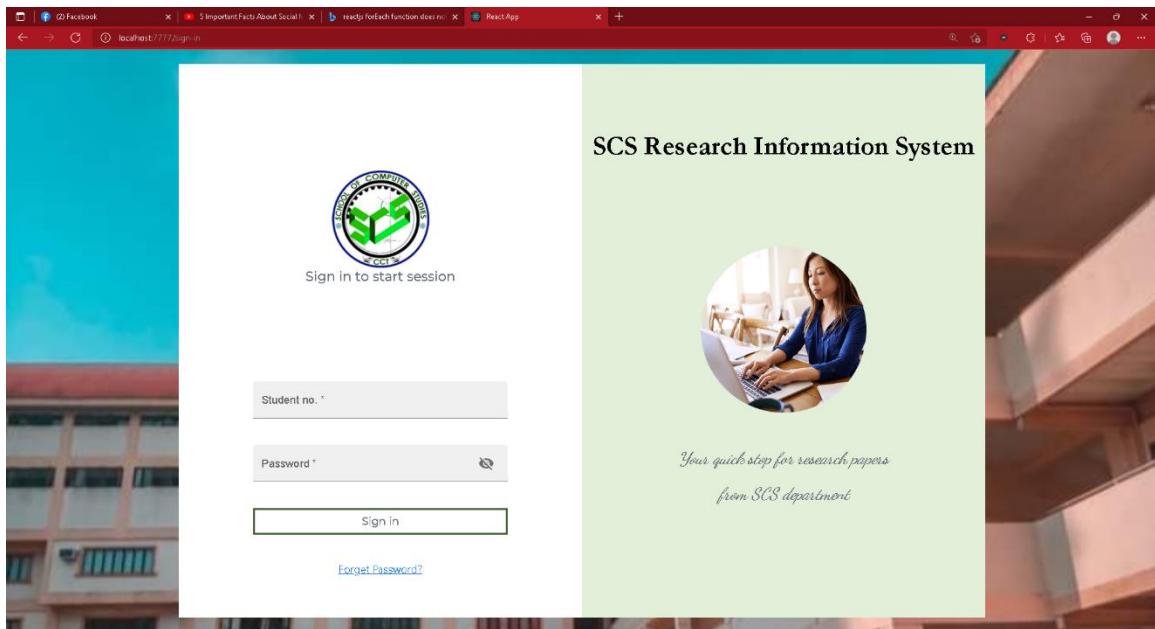
Using Google Chrome



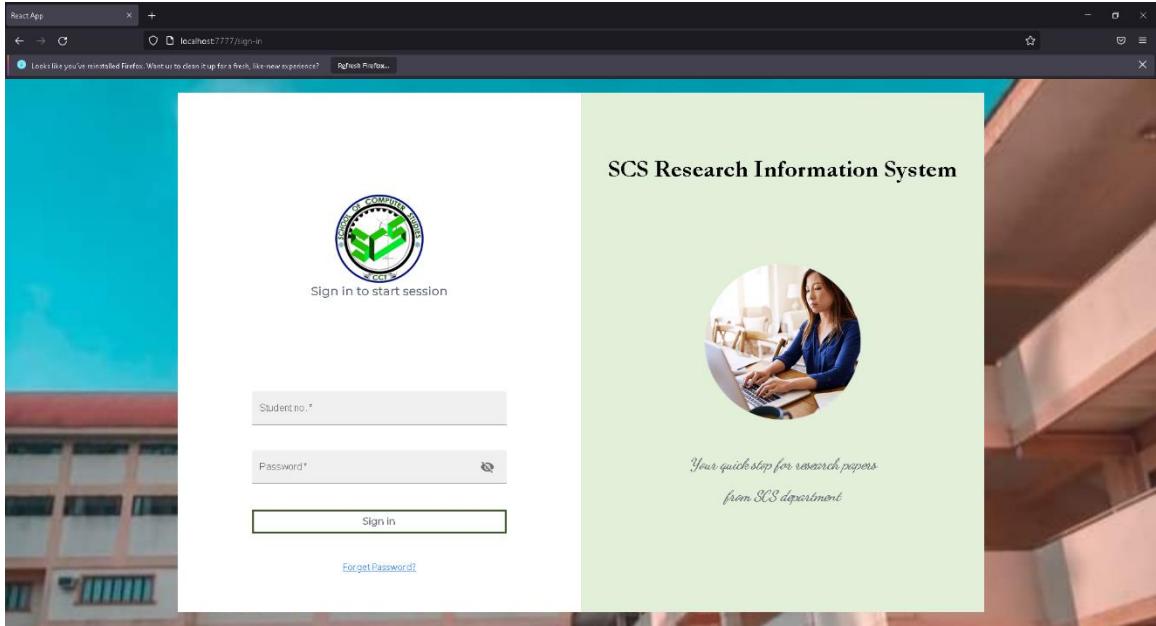
Using Opera GX



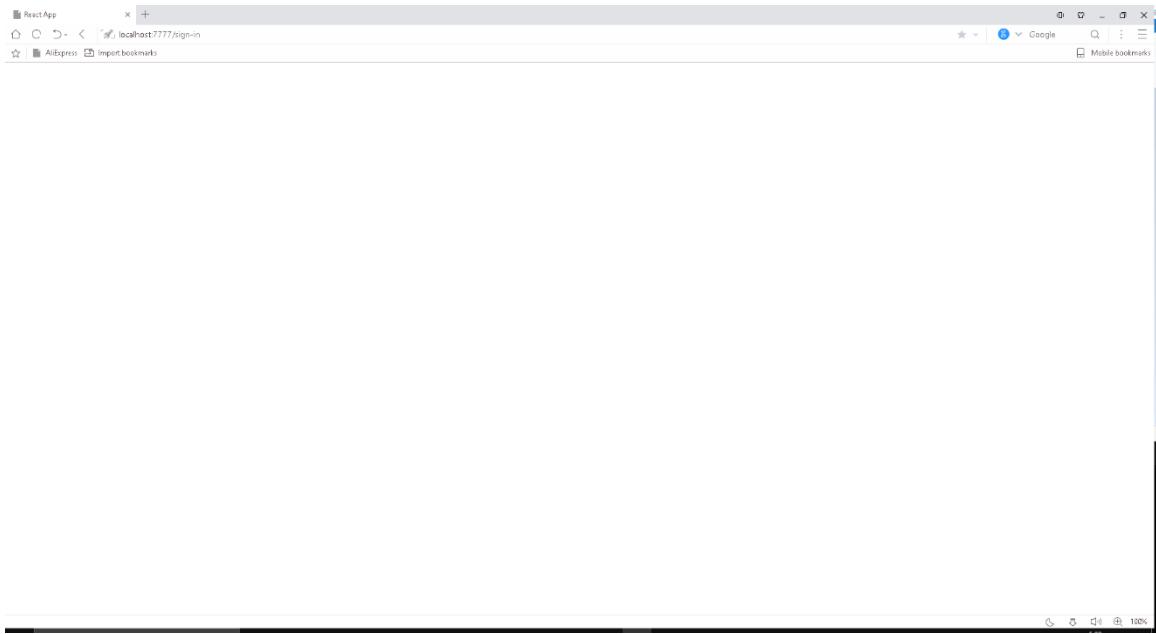
Using Microsoft Edge



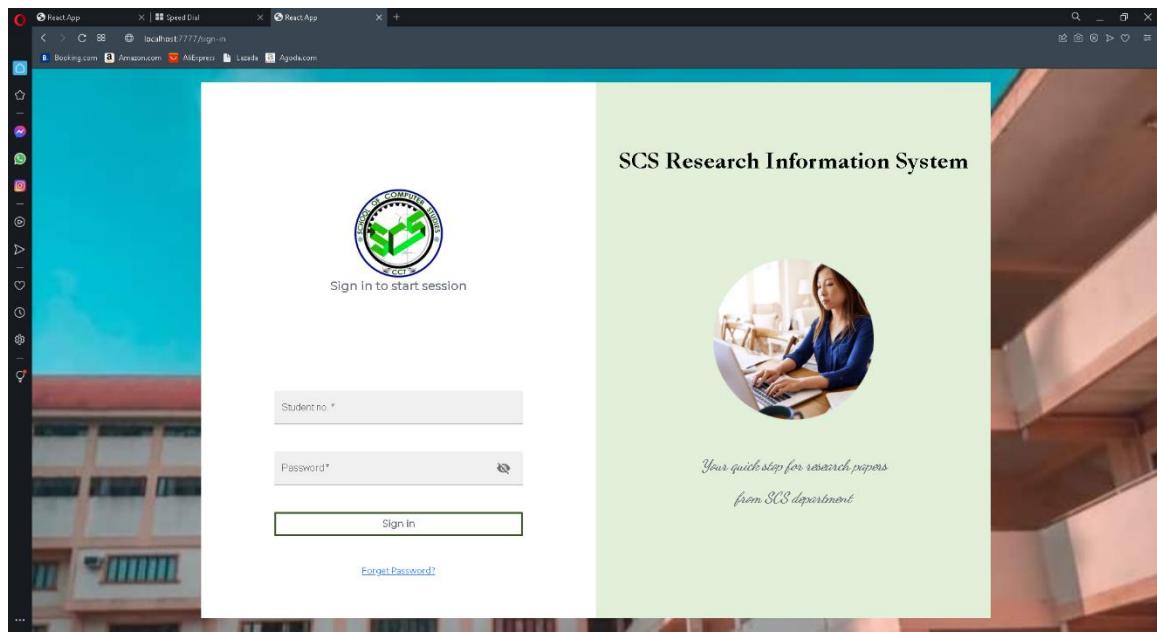
Using Mozilla FireFox



Using UC Browser



Using Opera Browser



Appendix E Sample Code.

C:\Users\Choy\Desktop\Research-IS\front-end\src\views\AdminDashboard.js (Research-IS) - Sublime Text (UNREGISTERED)

```
File Edit Selection Find View Goto Tools Project Preferences Help
```

server.js AdminDashboard.js

```
142     return(143       <div style={{width: '100%', height: '100%'}} className="d-flex justify-content-center align-items-center">(144         <div style={{height: '95%', width: '95%', backgroundColor: 'white', color: 'black', overflow: 'auto', overflowX: 'auto'}}>(145           <div className="d-flex flex-row justify-content-center align-items-center" style={{height: '100%', width: '100%'}}>(146             <div className="d-flex flex-column justify-content-around align-items-center" style={{height: '100%', width: '50%'}}>(147               <div style={{width: '100%', height: '100%', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(148                 <div style={{width: '90%', height: '90%', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(149                   <div style={{height: '2px', width: '100%', color: 'black'}}/>(150                     <div style={{fontSize: '25px', textAlign: 'center', height: '24px'}}>Research Status Ratio</p>(151                   </div>(152                 </div>(153               <div style={{height: '2px', width: '100%', color: 'black'}}/>(154                 <div style={{width: '90%', height: '90%'}}>(155                   <BarChart width='20' height='5' label={[Public,Hidden]} data={[Public,archive] color=[#4CAF50,'#548235']} setLabel='Research Status Ratio'>(156                   <a href={`/admin/list/${username}`}>Published</a><br>(157                   <a href={`/admin/archive/${username}`}>Archive</a></Link>(158               </div>(159             </div>(160           <div className="d-flex justify-content-around align-items-center flex-column" style={{height: '45%', width: '95%', backgroundColor: 'white', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(161             <div style={{width: '90%', height: '10px'}}>(162               <CategoryIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(163                 <p style={{fontSize: '25px', textAlign: 'center', height: '24px'}}>Research Categories</p>(164             </div>(165             <div style={{height: '2px', width: '100%', color: 'black'}}/>(166               <div style={{width: '90%', height: '70%'}}>(167                 <PieChart width='20' height='5' label={[Hardware,Software,'Web System', 'Game Development', 'Augmented Reality', 'Mobile App]} data={[Hardware,Software,WebSystem,GameDevelopment,AugmentedReality,MobileApp] color=[#4CAF50,'#548235']} setLabel='Research Categories'>(168               </div>(169             </div>(170           </div>(171         </div>(172       </div>(173     </div>(174   <div className="d-flex justify-content-around align-items-center flex-column" style={{height: '100%', width: '95%', backgroundColor: 'white', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(175     <div style={{width: '90%', height: '10px'}}>(176       <AccountCircleIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(177         <p style={{fontSize: '25px', textAlign: 'center', height: '24px'}}>Current MIS Officer</p>(178       </div>(179     <div style={{height: '2px', width: '100%', color: 'black'}}/>(180       <Avatar style={{height: '2px', width: '100%'}} src={image}/>(181     <div style={{height: '2px', width: '100%', color: 'black'}}/>(182       <FacultyData.map((obj)=>(183         <div style={{width: '100%', height: '50%', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(184           <div style={{width: '15%', height: '100%', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(185             <BadgeIcon sx={{color:green[500]}}/>(186             <label style={{fontSize: '17px'}}>Name:</label>(187             <label style={{fontSize: '17px'}}>{name ?? 'Loading'}</label>(188           </div>(189         </div>(190       </div>(191     </div>(192   </div>(193 </div>
```

Line 1, Column 1

master Tab Size:4 JSX

C:\Users\Choy\Desktop\Research-IS\front-end\src\views\FacultyDashboard.js (Research-IS) - Sublime Text (UNREGISTERED)

```
File Edit Selection Find View Goto Tools Project Preferences Help
```

server.js FacultyDashboard.js

```
186 <div style={{height: '95%', width: '95%', backgroundColor: 'white', color: 'black', overflow: 'auto', overflowX: 'auto'}}>(187   <div className="d-flex flex-column justify-content-around align-items-center" style={{height: '100%', width: '100%'}}>(188     <div className="d-flex flex-row justify-content-center align-items-center" style={{height: '100%', width: '32%'}}>(189       <div style={{width: '100%', height: '100%', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(190         <div style={{width: '100%', height: '10px'}}>(191           <CategoryIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(192             <p style={{fontSize: '25px', textAlign: 'center', height: '24px'}}>Students Per Year Level</p>(193           </div>(194         <div style={{height: '2px', width: '100%', color: 'black'}}/>(195           <BarChart width='20' height='5' label={[1st Year, 2nd Year, 3rd Year, 4th Year]} data={[first,second,third,fourth] color=[#4CAF50,'#548235']} setLabel='Students Per Year Level'>(196           </div>(197         </div>(198       </div>(199     </div>(200   <div className="d-flex justify-content-around align-items-center flex-column" style={{height: '100%', width: '95%', backgroundColor: 'white', border: '1px solid black', border-radius: '10px', padding: '10px'}}>(201     <div style={{width: '90%', height: '10px'}}>(202       <IconIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(203         <p style={{fontSize: '25px', textAlign: 'center', height: '24px'}}>Student's Gender Ratio</p>(204       </div>(205     <div style={{height: '2px', width: '100%', color: 'black'}}/>(206       <Divide style={{width: '2px', height: '20px'}}>(207         <div className="d-flex flex-column justify-content-around align-items-center" style={{width: '80%', height: '20%'}}>(208           <div style={{width: '100%', height: '10px'}}>(209             <MaleIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(210               <p style={{fontSize: '20px', textAlign: 'center', height: '20px'}}>Male</p>(211             </div>(212           <div style={{width: '100%', height: '10px'}}>(213             <FemaleIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(214               <p style={{fontSize: '20px', textAlign: 'center', height: '20px'}}>Female</p>(215             </div>(216           <div style={{width: '100%', height: '10px'}}>(217             <TotalIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(218               <p style={{fontSize: '20px', textAlign: 'center', height: '20px'}}>Total</p>(219             </div>(220           <div style={{width: '100%', height: '10px'}}>(221             <SchoolIcon sx={{color:green[500]},height:'35px',width:'35px'}/>(222               <p style={{fontSize: '20px', textAlign: 'center', height: '20px'}}>Male + Female</p>(223             </div>(224           </div>(225         </div>(226       </div>(227     </div>(228   </div>(229 </div>
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Line 1, Column 1

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C:\Users\Choy\Desktop\Research-IS\front-end\src\views\StudentDashboard.js (Research-IS) - Sublime Text (UNREGISTERED)

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C:\Users\Choy\Desktop\Research-IS\front-end\src\views\Login.js (Research-IS) - Sublime Text (UNREGISTERED)

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Appendix F (Interview Report).

Informal Interview for the Development of Research Information System for School of Computer Studies in City College of Tagaytay.

What are the process in managing research manuscript in City College of Tagaytay?

The School of Computer Studies (SCS) Faculty Room located at 4th floor, City College of Tagaytay has a storage cabinet for its collection of Information Technology/Computer Science-related research manuscripts. It's the location where the School's Research Coordinator stores the list of manuscripts submitted by students of SCS. The School's current situation of handling and recording student research is being done manually by the School Research Coordinator where the process of recording is being done per batch. The students were having a hard time accessing the list of research established in the previous year because of lack of student research masters list.

What are the expected functionalities in the development of research information system for SCS in CCT?

- ✓ Create accounts for (Students, MIS Officer, School Research Coordinator)
- ✓ Create student account to view researches.
- ✓ Allow Students to view the full content of SCS researches and add available researches on the system to favorites.
- ✓ Add Researches for public viewing for students.
- ✓ Create MIS Officer Account to manage student accounts as well as upload and view list of researches.

- ✓ Create Research Coordinator account to manage MIS Officer Accounts as well as manage researches that can be viewed by the students.
- ✓ Create a web based system accessible only by being connected on the school Wi-Fi network range.
- ✓ Allow user to use search filter for researches which includes research title, research category, year they were submitted and which specific course they belong to.
- ✓ Disable Student from downloading research.
- ✓ Web based and only available on the institution.

Signature over printed name

SCS Research Coordinator