Employee Dashboard with Data Analytics

A Dissertation Presented
St. Paul University Philippines
Tuguegarao City, Cagayan

In Partial Fulfillment
of the Requirements for the Degree
BACHELOR OF SCIENCE
IN INFORMATION TECHNOLOGY

By

RODWIN D. VICQUERRA
ARJAE A. LARA
January 2026

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

THE PROBLEM AND REVIEW OF RELATED LITERATURE

Introduction

In the contemporary landscape of educational administration, the operational efficiency of an academic department relies heavily on its ability to manage human resources and information effectively. As universities evolve into complex organizational structures, the volume of administrative data generated—from faculty credentials to daily task outputs—has grown exponentially, necessitating robust management strategies. Consequently, as educational institutions transition into Industry 4.0, there is a growing imperative to shift from traditional, paper-based workflows to automated, data-driven digital ecosystems. This paradigm shift involves integrating cloud computing and intelligent systems into daily governance to ensure that administrative responsiveness matches the speed of modern academic demands. According to Benavides et al. (2020), the digital transformation of higher education institutions significantly optimizes administrative processes; it not only minimizes the latency caused by manual record-keeping but also enhances the overall

transparency and accountability of faculty operations, ensuring that institutional standards are consistently met.

However, despite the widespread availability of basic digital tools, many academic departments continue to struggle with fragmented data management. Often, departments utilize standalone technologies—such as disconnected spreadsheets, individual email threads, and local file storage—which creates an illusion of digitization without true integration. Baig et al. (2020) highlight this persistence of "information silos" in educational settings, where critical data are stored in disparate, disconnected formats that cannot communicate with one another. This fragmentation poses a significant challenge for administrators, specifically Program Coordinators and Deans, who require a unified, holistic view of the department's health to make informed resource allocation decisions. When data is trapped in silos, leadership is forced to rely on piecemeal reports rather than comprehensive analytics. Without a centralized platform, the process of monitoring employee compliance becomes reactive rather than proactive, often leading to severe administrative bottlenecks where issues are only

identified after deadlines have passed This context highlights (Haleem et al., 2022).

A critical opportunity for optimization within the School of Information Technology and Engineering (SITE) at St. Paul University Philippines. Given the department's rigorous standards for faculty performance and the increasing volume of professional documentation, maintaining manual or semi-automated monitoring methods has become operationally demanding. The transition to a specialized digital tool is a strategic step to align the department’s administrative workflows with its commitment to technological excellence. By adopting this system, the department ensures that its internal operations are as advanced as the curriculum it offers.

To address these challenges, this study aims to develop an "Employee Dashboard with Data Analytics." The general objective of this study is to create a centralized web-based platform that automates the monitoring of faculty performance and streamlines document management. By integrating data analytics, the study seeks to transform raw operational data into actionable insights, enabling the administration to practice evidence-based management.

Technically, the system will function as a secure, role-based environment. Faculty members will utilize the platform to upload professional documents and update task statuses, serving as the primary data input. The system will then process this input using analytical algorithms to generate real-time visual dashboards for the Dean and Program Coordinator. As emphasized by Matcha et al. (2020), these dashboard visualizations serve as critical cognitive aids, allowing decision-makers to perceive complex performance metrics instantly. Furthermore, Alix et al. (2022) validate this approach, noting that web-based platforms integrated with decision support mechanisms significantly enhance the accuracy of faculty evaluations while reducing the administrative workload required for manual monitoring.

Review of Related Literature and Studies

Design and Implementation of an Employee Management System with Data Analytic

Recent research underscores the transformative role of advanced technologies in modernizing human resource management. Anitha (2024) argues that synergizing design thinking with advanced data analytics is essential for navigating the digital economy, though they note the

challenges of integrating these new methods with legacy systems. Building on this approach to solve traditional inefficiencies, Liu (2023) demonstrates that utilizing data mining technology allows for the effective analysis of massive employee data, which significantly improves administrative efficiency and the accuracy of decision making in personnel allocation.

Information and Communication Technologies (ICT) in Educational and Organizational Administration

Recent studies emphasize the increasing reliance of educational institutions on ICT driven systems to enhance administrative and academic processes. Yang (2025) explains that traditional online platforms often fail to adapt to diverse user needs, highlighting the importance of intelligent system designs that can translate complex data into meaningful institutional decisions. Similarly, Freeman et al. (2021) note that while centralized digital decision-making allowed universities to respond quickly during periods of disruption, sustainable academic management now requires more flexible and collaborative digital infrastructures. Supporting this view, Kwon et al. (2021) argue that learning platforms should function as

fully integrated environments rather than supplementary tools, ensuring effective coordination between academic and administrative functions. These findings collectively underline the critical role of ICT systems in modernizing educational administration.

Recent studies highlight that while digital technologies have rapidly expanded across various sectors, their effectiveness is often limited by weak digital ecosystems, insufficient user skills, and infrastructure constraints (Mehrabi et al., 2023). Yousaf et al. (2024) further emphasize that even well-designed digital systems face challenges related to high implementation costs, data security concerns, and limited digital literacy among users. These findings suggest that the successful deployment of ICT based administrative systems depends not only on technological availability but also on organizational readiness, user training, and secure system design.

Chiyadzwa and Mukute (2025) explored the critical role of data analytics in driving strategic management across higher education institutions to enhance competitiveness and responsiveness. Their analysis of university strategic

plans reveals that leveraging data for decision making significantly improves institutional effectiveness in areas such as academic development, innovation, and overall teaching and learning strategies.

Educational and Organizational Data Analytics for Strategic Decision Making

Data analytics has become a vital component in institutional decision making, particularly in identifying risks and improving long term outcomes. Lauró et al. (2021) demonstrate that allowing institutions to implement targeted interventions. Likewise, McKinney et al. (2022) emphasize that decisions are influenced by academic confidence and advisory quality, reinforcing the need for data informed guidance systems. Choudhari and Rangari (2024) further highlight that visual analytics enable administrators to monitor performance trends and identify at-risk individuals before failure occurs. These studies align with McNaughtan and Irving's (2025) assertion that strategic enrollment management depends on integrated analytics that support proactive, institution wide planning.

Empirical evidence shows that higher levels of digital system adoption are strongly associated with improved organizational and economic outcomes. Zhai et al. (2024) demonstrated that increased intensity of digital technology use leads to measurable performance gains, emphasizing the value of data driven practices. Similarly, Liu et al. (2024) found that participation in integrated digital systems encourages the adoption of improved operational practices by enabling access to timely and relevant data. These findings support the role of data analytics in strengthening strategic decision making and institutional performance.

Effectiveness of Descriptive Analytics and Dashboard Based Monitoring Systems

Prayoga and Hasanuddin (2025) developed a web based interactive dashboard designed to modernize employee performance monitoring by providing real time visualization of key performance indicators and attendance records. Their research demonstrates that replacing static evaluation methods with dynamic visual tools like graphs and progress bars significantly improves managerial oversight and organizational decision making.

(Fullerton et al. (2025) demonstrate that web based dashboards are effective tools for monitoring data and supporting evidence driven decisions, which ultimately boosts organizational innovation and project performance. Building on this, Rahman et al. (2025) highlight that the success of such dashboards depends heavily on their design and implementation. They argue that streamlined interfaces are necessary to prevent cognitive overload and that structured training is essential for organizations to fully maximize the benefits of these decision support tools.

Chiyadzwa and Mukute (2025) explored the critical role of data analytics in driving strategic management across higher education institutions to enhance competitiveness and responsiveness. Their analysis of university strategic plans reveals that leveraging data for decision making significantly improves institutional effectiveness in areas such as academic development, innovation, and overall teaching and learning strategies

Descriptive analytics and dashboard systems play a crucial role in transforming raw data into actionable insights. Zipser et al. (2021) found that improvements in course evaluation ratings were directly associated with

increased the impact of visible performance indicators. Plante et al. (2022) further reveal that digital evaluation systems often generate more detailed and constructive feedback than traditional methods. In addition, Demszky et al. (2023) show that automated analytic tools can provide consistent feedback that enhances instructor engagement outcomes. These findings support the use of dashboards as effective monitoring tools for informed administrative oversight.

The effectiveness of analytics systems depends largely on how data is transformed into actionable insights. Uyar et al. (2024) argue that digital platforms should not merely present raw statistics but must translate processed data into meaningful indicators that support informed decision making. This underscores the importance of dashboards and descriptive analytics in enabling administrators to quickly interpret performance trends and respond to organizational needs.

Susnjak, Ramaswami, and Mathrani (2022) critiqued current learning analytics dashboards, finding that most rely on surface level descriptive data rather than actionable predictive insights. To address this, the

researchers developed a state of the art dashboard that integrates machine learning to provide both predictive and prescriptive analytics, allowing students to understand the reasoning behind performance forecasts. This innovative approach aims to build learner trust and trigger specific behavioral changes by offering concrete, data driven advice within a higher education setting.

Data Analytics Techniques and Algorithmic Support in Information Systems

in the modern digital landscape, the integration of data analytics into information systems has become a fundamental requirement for enhancing organizational efficiency. Moushumi and Alam (2024) emphasizes that traditional decision-making processes, which often rely on intuition or fragmented records, are increasingly being replaced by Data-Driven Decision-Making (DDDM) frameworks. By employing techniques such as descriptive and diagnostic analytics, information systems can transform vast amounts of raw operational data into "actionable intelligence," allowing administrators to identify performance bottlenecks and resource gaps in real-time.

Advanced analytics and algorithm driven systems significantly improve institutional efficiency. Lan and Li (2022) developed a big data based enrollment platform that drastically reduced processing time, demonstrating the operational value of optimized algorithms. Similarly, Zhang and Qiang (2022) confirmed that computational scheduling methods outperform manual systems in both speed and accuracy. Extending these findings, Liu (2025) introduced a framework combining machine learning algorithms and visual analytics to detect learning gaps and support evidence-based interventions. These studies highlight how algorithmic intelligence strengthens the reliability and responsiveness of academic information systems.

Advanced analytics and intelligent systems enhance decision support by automating data interpretation and reducing reliance on manual processes. Gupta et al. (2024) found that query systems provide timely, context information that reduces operational bottlenecks. In addition, Mansoor et al. (2025) predictive technologies enable real time analytics that support responsive planning. These studies demonstrate how algorithmic support

strengthens the accuracy and efficiency of modern information systems.

Susnjak, Ramaswami, and Mathrani (2022) examined learning analytics dashboards and found that most current tools rely on surface level descriptive data rather than actionable insights. To address this gap, the researchers developed a sophisticated dashboard that integrates machine learning to provide both predictive and prescriptive analytics for students. This innovative system aims to build learner trust and trigger positive behavioral changes by offering concrete advice based on automated performance forecasts.

Guzmán Valenzuela et al. (2021) conducted a bibliometric and content analysis of 385 papers to examine the current state of learning analytics in higher education and concluded that most studies prioritize technical components over pedagogical impact. Building on this need for a more educational focus, Buckingham Shum et al. (2024) emphasized the necessity of human centered design to ensure that artificial intelligence and data driven tools are both ethically sound and practically effective for improving learning outcomes.

Kobi (2025) investigated how dashboard analytics and data visualization tools can enhance performance management and continuous process improvement within organizations. The research findings indicate that interactive dashboards facilitate better decision making by allowing managers to track key performance indicators and identify operational inefficiencies through real time data insights.

Role Based Access Control (RBAC) and Information Security in Managing Documents and Report Systems

Ensuring data security and controlled access is critical in multi user academic systems. Shao (2022) demonstrates that hierarchical role assignments improve task accuracy and accountability. Complementing this, Hassan and Rahman (2025) argue that secure data architectures protect academic records from unauthorized modification. Niazi and Al Ahmadi (2025) further suggest that modern access control mechanisms support fairness and integrity in evaluation systems. These studies reinforce the importance of RBAC in safeguarding institutional data.

Ensuring data integrity and secure access remains a critical concern in multi user digital systems. Shahzad et al. (2022) demonstrate that decentralized data architectures enhance system security by reducing risks related to data manipulation and single failures. Similarly, Javaid et al.

(2022) highlight that secure and transparent record keeping strengthens trust among system stakeholders. These findings support the implementation of controlled access mechanisms such as RBAC to protect sensitive organizational data.

Automated Reporting and Notification Systems for Administrative Efficiency

Automation has become a key strategy in addressing administrative workload challenges. Mammadova et al. (2024) emphasize that automated scheduling systems improve alignment between course demand and resource allocation. Taye et al. (2023) further show that cloud based automation simplifies complex administrative tasks. Supporting this, Amponsah et al. (2025) identify the absence of digital monitoring systems as a major cause of delayed academic progress. These findings validate the role of automated reporting and notifications in enhancing operational efficiency.

Digital systems extend their value beyond operational efficiency by empowering users through timely information access and automated communication. Hosen (2023) found that digital platforms facilitate efficient information exchange and service access, strengthening institutional responsiveness. This supports the use of automated reporting and notification systems to improve coordination, transparency, and administrative efficiency.

International Applications of Data Driven Systems

Data driven decision support systems are increasingly applied to improve academic operations and governance. Shao (2022) highlights the effectiveness of hierarchical system designs that enable administrators to complete tasks with greater accuracy. Similarly, Villaruz and Diamante (2024) show that rule based digital admission systems enhance transparency and reduce manual errors. Xiao (2025) further demonstrates that structured evaluation models supported by automated feedback loops lead to continuous curriculum improvement. These applications illustrate the growing relevance of decision support technologies in academic management.

Digital System Integration of Data Analytics in the Philippine Context

The transition toward integrated digital infrastructures is essential for improving institutional efficiency, particularly in developing educational systems. Falolo et al. (2022) emphasize that digitizing academic records is a foundational step in ensuring reliable service delivery. Liu et al. (2024) further caution that isolated data systems increase the risk of data loss and inefficiency, advocating for interconnected platforms that support secure data sharing. In line with this, Tan et al. (2024) demonstrate that user centered digital enrollment systems reduce administrative

delays and enhance overall satisfaction. These studies underscore the importance of integrated infrastructures in supporting data driven management.

The transition from traditional to advanced digital record keeping in higher education presents both challenges and innovative solutions. Clemence et al. (2023) highlight the difficulties in this shift, noting that despite the availability of electronic records systems in Tanzanian institutions, effectiveness is often hindered by human and organizational factors, leaving many records still paper based. Addressing similar inefficiencies but proposing a technological leap, Pondkule and Kothari (2025) introduce blockchain based document management as a solution. They argue that blockchain's decentralized nature not only ensures security and credibility but also streamlines verification by creating unalterable, student controlled records, thus offering a pathway to overcome the limitations of earlier electronic systems.

Local Centralized System for Monitoring Faculty Performance in an Academic Institution

Secreto et al. (2025) investigated the perspectives of academic administrators regarding data driven decision making and the effectiveness of real time student progress monitoring. Using a mixed methods design, the study revealed that while administrators highly value data driven strategies and real

time monitoring for ensuring student success, they rated existing student information systems as only moderate. This discrepancy suggests a critical need for system enhancements to better support informed administrative decisions and institutional effectiveness.

Synthesis

Recent studies emphasize that employee and academic management systems are crucial for improving institutional efficiency, especially when combined with data analytics. Research indicates that integrating analytics into management platforms allows institutions to process large volumes of employee and academic data more accurately, enhancing administrative decisions and reducing manual workload (A and Anitha, 2024; Liu, 2023; Chiyadzwa and Mukute, 2025). These systems help monitor performance, ensure fair allocation of tasks, and support evidence based decision making. However, challenges remain in adopting new technologies within existing structures, particularly when legacy systems are still in use (Mehrabi et al., 2023; Yousaf et al., 2024).

Information and communication technologies are increasingly vital in educational and organizational administration. Studies suggest that traditional digital platforms often fail to meet diverse user needs, emphasizing the importance of intelligent system designs that translate

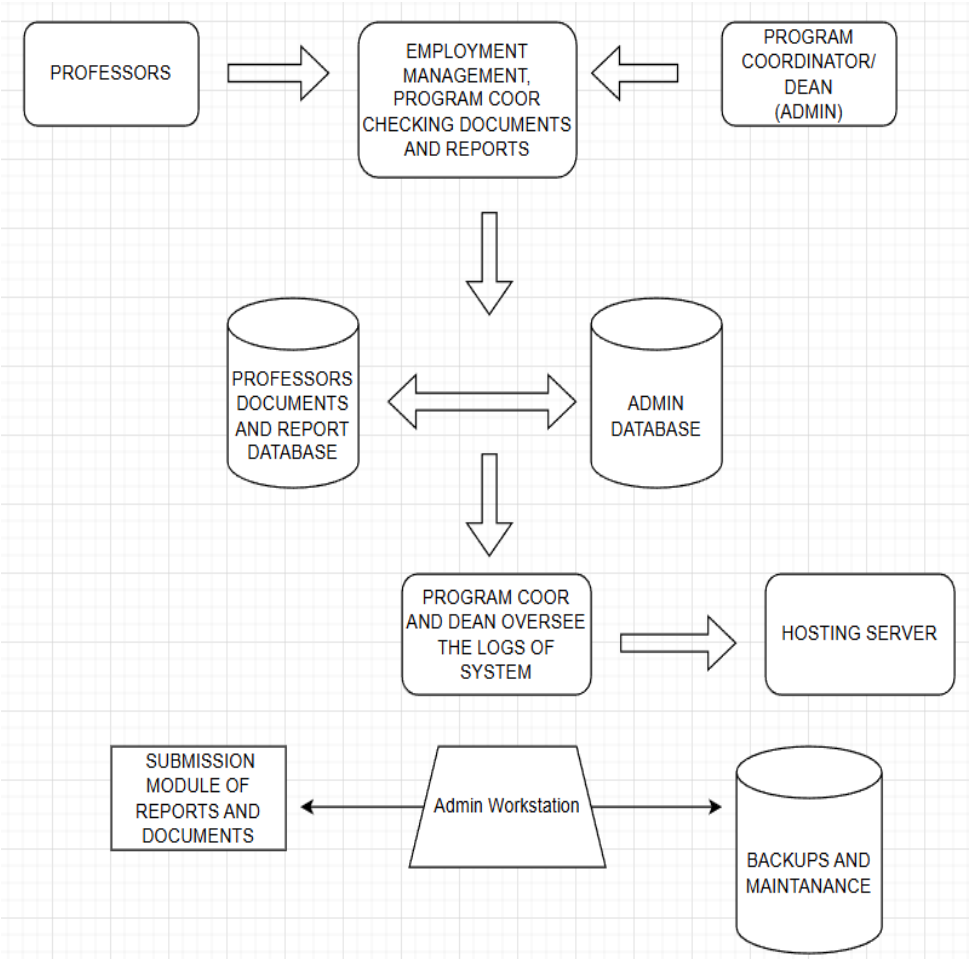
complex data into actionable decisions (Yang, 2025; Freeman et al., 2021; Kwon et al., 2021). Success also depends on organizational readiness, user training, and secure system design (Uyar et al., 2024; Gupta et al., 2024). Effective ICT systems support collaboration, integrate academic and administrative functions, and allow institutions to respond more efficiently to emerging challenges (Liu et al., 2024; Zhai et al., 2024).

The use of data analytics and dashboard based monitoring has further strengthened institutional decision making. Descriptive analytics and interactive dashboards allow administrators to track performance trends, identify risks, and respond proactively (Prayoga and Hasanuddin, 2025; Fullerton et al., 2025; Rahman et al., 2025). Research shows that dashboards providing processed and visualized data are more effective than presenting raw statistics, enabling faster interpretation and informed actions (Zipser et al., 2021; Plante et al., 2022; Demszky et al., 2023). While predictive and prescriptive analytics are gaining attention, most existing systems still rely primarily on descriptive data, revealing the need for more advanced analytical capabilities (Susnjak, Ramaswami, and Mathrani, 2022).Security, automation, and system integration are also essential in modern digital systems. Studies indicate that role based access control safeguards sensitive records, ensuring that users access only relevant information (Shao,

2022; Hassan and Rahman, 2025; Niazi and Al-Ahmadi, 2025). Automated reporting and notification systems reduce administrative delays, improve transparency, and facilitate efficient coordination (Mammadova et al., 2024; Taye et al., 2023; Hosen, 2023). Research in both international and local contexts shows moderate satisfaction with current systems, highlighting gaps in real time monitoring, integration, and analytic capabilities (Secreto et al., 2025; Tan et al., 2024; Clemence et al., 2023). These findings suggest a clear need

Conceptual Framework

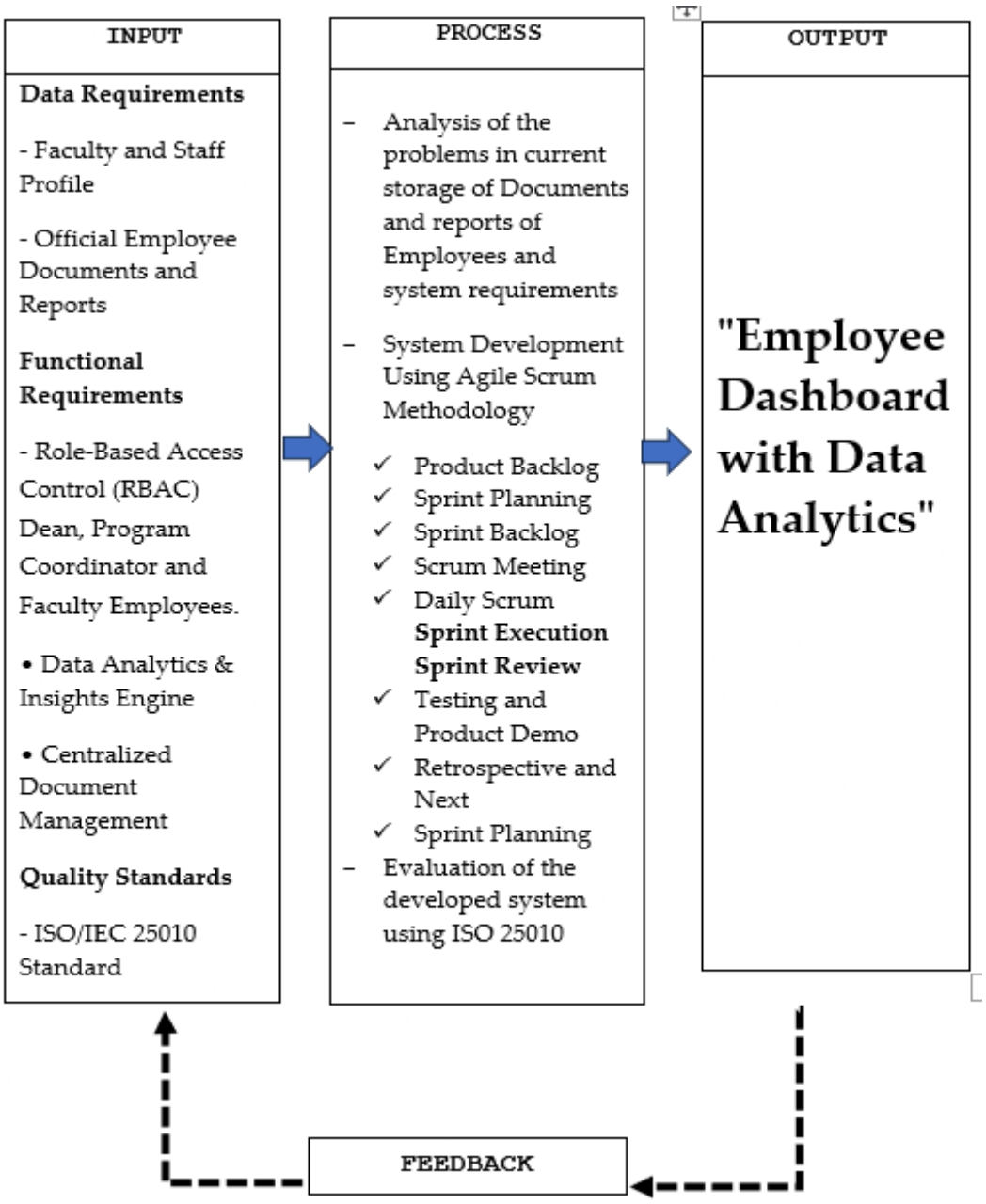
Figure 1. Performance Evaluation System with Application of Data Analytics (Fuente, 2021/2022)



The system shows how faculty employees, the program coordinator, and the dean interact through a centralized platform for managing reports and official documents. Faculty members submit required reports, while the program coordinator and dean monitor activities and review information using dashboard analytics and role-based access.

Paradigm of the Study

Figure 2. The Paradigm of the Study



The Input phase identifies the essential building blocks required to address the inefficiencies in current document storage and report management. It encompasses Data Requirements, such as faculty profiles and official

reports, alongside Functional Requirements like the Data Analytics engine and Centralized Document Management. Central to this stage is the integration of Role Based Access Control (RBAC), which ensures that the Dean, Program Coordinator, and Faculty Employees interact with the system through secure, specialized permissions. By aligning these needs with the ISO/IEC 25010 Standard from the outset, the research ensures that the foundation of the system is built upon recognized quality benchmarks that prioritize both security and user centered design.

The Process phase utilizes the Agile Scrum Methodology to transform raw requirements into a functional platform through a series of collaborative and iterative cycles. This humanized development approach begins with a deep analysis of existing problems, followed by the creation of a Product Backlog and subsequent Sprint Planning. Through Daily Scrums and Sprint Executions, the development team remains responsive to feedback, allowing for continuous refinement of the system's logic and user interface. The cycle concludes with Sprint Reviews and Product Demos, ensuring the software is intuitive and effective before it

undergoes a final, rigorous evaluation based on the ISO 25010 criteria for functional suitability and reliability.

The Output of this study is the completed system titled "Employee Dashboard with Data Analytics," representing a finalized solution for modernizing academic administration. This digital platform serves as the tangible result of the iterative development process, providing a centralized hub where data is not merely stored but transformed into actionable insights. By replacing manual, error prone workflows with an automated dashboard, the system achieves the research goal of enhancing operational efficiency and data driven decision making. Ultimately, this output stands as a bridge between institutional challenges and technological innovation, providing a sustainable tool that empowers users and secures institutional records.

Statement of the Problem

The increasing volume of employee records has overwhelmed traditional paper-based management systems, resulting in data security vulnerabilities and frequent errors during manual record reconciliation. These inefficiencies hinder effective performance monitoring and

decision making, emphasizing the need for an automated employee dashboard to reduce administrative delays and support accurate, data-driven management.

specifically, the study sought to answer the following questions:

1. What are the specific problems and challenges encountered by Program Coordinators and Dean regarding the current manual process of Organizing documents and reports?
2. What system can be developed to address the problems and challenges?
3. What is the quality level of the developed system according to its intended users, based on the ISO/IEC 25010 software quality standard in terms of:
   - 3.1. Functional Suitability
   - 3.2. Performance Efficiency
   - 3.3. Compatibility
   - 3.4. Interaction Compatibility
   - 3.5. Reliability
   - 3.6. Security
   - 3.7 Maintainability
   - 3.8 Flexibility
   - 3.9 Safety
4. What suggestions and improvements can be done to improve the system?

Scope and Limitations

The primary focus of this research is the creation of a centralized employee management platform that uses data

analytics to improve school administration. The system is designed to organize employee records and provide a clear dashboard where the Program Coordinator can monitor activities and assign tasks efficiently. A major part of the platform is its document management feature which allows faculty members to upload reports and access department files in one secure location. To keep everyone informed the system includes a notification feature that sends out alerts and announcements in real time. For security the platform uses role based access control which ensures that the Dean can view performance reports without editing them while faculty members can only manage their own submitted data. By gathering these records the system produces visual analytics that help leaders make better decisions based on actual performance.

While the system provides comprehensive tools for management it operates within certain boundaries. The platform is strictly focused on employee activities and professional documentation and it does not include features for financial management such as payroll processing or tax calculations. Although the system tracks task completion and generates reports it does not have the capability to

automatically hire or terminate staff as these actions remain part of the human resource department manual procedures. Technically the dashboard is a web based tool that requires a stable internet connection to function which means it cannot be accessed or updated in an offline environment. Finally the quality of the analytics produced by the system is entirely dependent on the accuracy of the information entered by the users. The system can organize and visualize data but it cannot automatically fix errors or missing details found in the original files provided by the faculty.

In addition to these boundaries, the study does not cover student related modules such as enrollment or grading since the platform is exclusively dedicated to faculty and staff management. By maintaining this specific focus, the research ensures that the development of the dashboard remains concentrated on improving institutional productivity and professional document handling.

Significance of Study

Department – The department will benefit from a more organized way of handling records by moving away from manual paperwork to a digital system. This change improves

daily operations and ensures that all employee information is kept safe and easy to find whenever needed.

Dean – The platform provides a high level view of the department's activities and staff performance without the need to check every small detail manually. It offers clear visual reports that help in making better leadership decisions based on actual data.

Program Coordinator – As the main user managing the staff, the coordinator will have a much lighter workload when tracking tasks and reports. The system acts as a helpful tool that organizes all employee documents in one place and provides quick summaries of finished work.

Faculty Employee – Faculty members will have a simple and easy to use space to upload their reports and keep their professional documents updated. By making the submission process digital, they can spend more time on their teaching duties while easily seeing their own tasks and progress. Of their tasks and performance metrics.

Researchers – This project allows the researchers to practice building a real world tool that solves actual office problems. It provides a chance to apply what they

have learned about creating software and managing databases in a practical way.

Future Researchers – This study can be used as a helpful guide for other students who want to create similar management tools. It shows how technology can be used to fix common administrative issues and makes it easier for next researchers to build even better systems.

Definition of Terms

Actionable Insights - refer to meaningful information generated from processed data that directly supports informed administrative and managerial decision making.

Audit Trail - refers to a chronological record of system activities that allows verification, monitoring, and review of user actions for accountability and security.

Automation Workflow - refers to a system-defined sequence of automated processes that manages document submissions, report generation, and notifications with minimal manual intervention.

Business Intelligence (BI) - refers to technologies and analytical practices used to collect, process, and

present institutional data to support strategic decision making.

Centralized Document Management - refers to a unified digital repository where all employee documents and reports are securely stored, organized, and accessed within a single system.

Cognitive Load - refers to the amount of mental effort required by users when interacting with the system interface and interpreting dashboard information.

Compliance Monitoring - refers to the systematic tracking of employee submissions and task completion to ensure adherence to institutional policies and deadlines.

Data Analytics Engine - refers to the core system component responsible for processing raw employee data and transforming it into visual reports, trends, and performance indicators.

Data Visualization - refers to the graphical representation of processed data using charts, graphs, and dashboards to improve understanding and interpretation.

Decision Support System (DSS) - refers to a computer based system that assists administrators by analyzing data and presenting relevant information for informed decisions.

Descriptive Analytics - refers to an analytical approach that summarizes historical system data to describe employee performance, task completion, and document status.

Information and Communication Technology (ICT) - refers to digital technologies used to manage, process, and communicate institutional data within organizational systems.

Interoperability - refers to the ability of the system to exchange and use data seamlessly with other institutional information systems.

Key Performance Indicators (KPIs) - refer to quantifiable performance metrics used to measure employee productivity, compliance, and completion of assigned tasks.

Operational Efficiency - refers to the system's ability to reduce manual workload, processing time, and administrative delays through automation.

Performance Trend Analysis - refers to the evaluation of historical performance data to identify patterns, progress, and areas for improvement.

Predictive Analytics - refers to an advanced form of data analytics that uses historical data patterns to forecast future outcomes and performance trends. *Predictive Analytics* - refers to an advanced form of data analytics that uses historical data patterns to forecast future outcomes and performance trends.

Role Based Access Control (RBAC)- refers to a security mechanism that restricts system access and functionalities based on predefined user roles such as Dean, Program Coordinator, and Faculty Employee.

Security Logs - refer to automatically generated system records that document user activities and system events for monitoring, auditing, and data protection purposes.

System Backup Database - refers to a secondary data storage component that maintains duplicate copies of system information to ensure data recovery and continuity.

System Reliability - refers to the capability of the system to perform consistently and accurately under normal operating conditions without failure

User Activity Logs - refer to recorded traces of actions performed by users within the system to support accountability, transparency, and system monitoring.

Visual Analytics - refer to the presentation of processed data through charts, graphs, and dashboards to enhance quick interpretation and decision making.

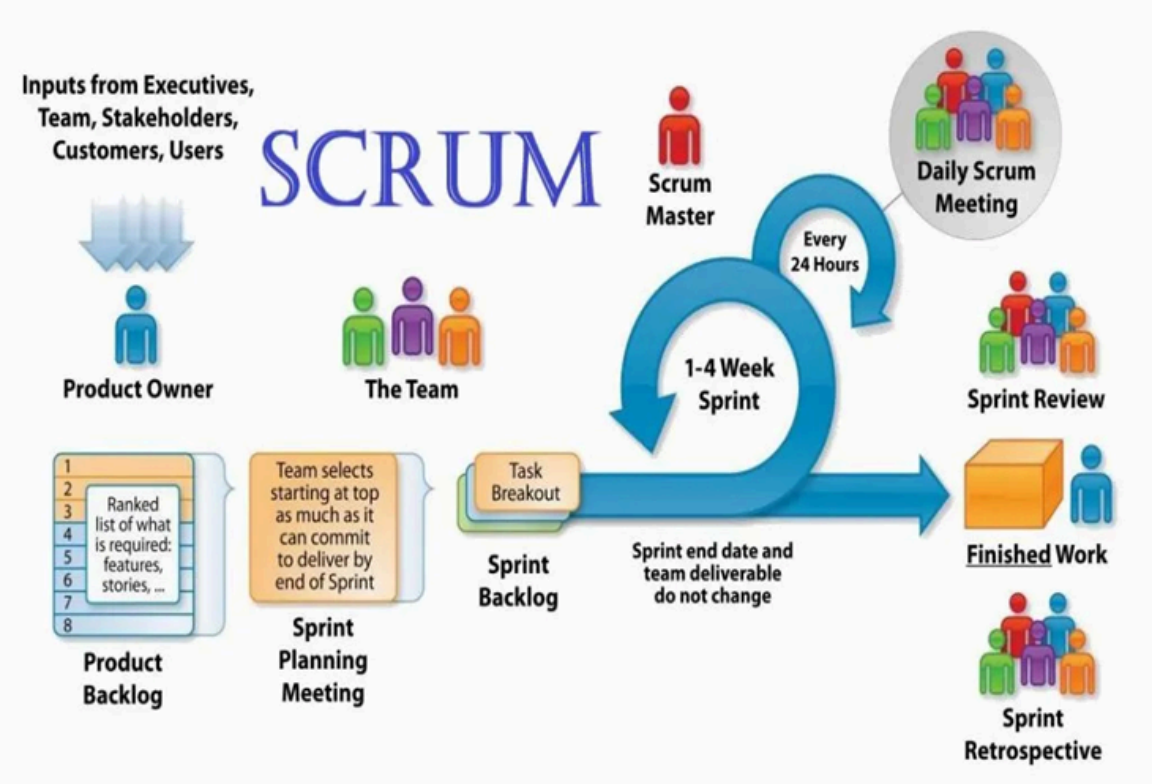
Chapter 2

METHODOLOGY

This chapter delineates the methodological framework by utilizing the Agile Scrum model to facilitate the iterative development of the centralized web platform while employing a mixed methods approach for data gathering. It details the systematic procedures for requirement identification and system design that culminate in a rigorous evaluation of software quality compliance to ensure functional suitability and operational efficiency for the intended users.

Research Design

Figure 3. *Agile Scrum Methodology (Schwaber & Sutherland, 2020)*



Agile and Scrum are iterative software development methodologies that prioritize flexibility and stakeholder feedback to address evolving project requirements. This framework relies on transparent communication and collaborative problem solving to ensure the system remains adaptable to changing user needs. When implemented effectively, this approach facilitates the delivery of robust solutions that directly align with institutional priorities and user expectations.

Developing the Employee Dashboard with Data Analytics using the Agile methodology and the Scrum framework follows a cycle of continuous improvement to ensure all security and

analytical features meet user needs. The process is divided into these five shortened stages:

1. *Product Backlog* Creation In this initial phase, the researchers identify all essential features for the dashboard, such as Role Based Access Control (RBAC), document management, and data analytics engines. Requirements are gathered through consultations with the Dean, Program Coordinator, and faculty to ensure the system addresses actual administrative bottlenecks. These tasks are documented and prioritized in a master list known as the Product Backlog, with high impact features like secure login and automated reporting ranked at the top.

2. *Sprint* Planning and Creating Backlog During this stage, the researchers select a manageable set of high priority items from the Product Backlog to be completed within a specific timeframe. The team determines the work sequence and technical requirements for features like the analytics dashboard or the document upload module. These selected tasks are organized into a Sprint Backlog, which serves as the primary roadmap for that particular development cycle.

3. *Working on the Sprint* The researchers focus on building functional modules, such as the Coordinator's task

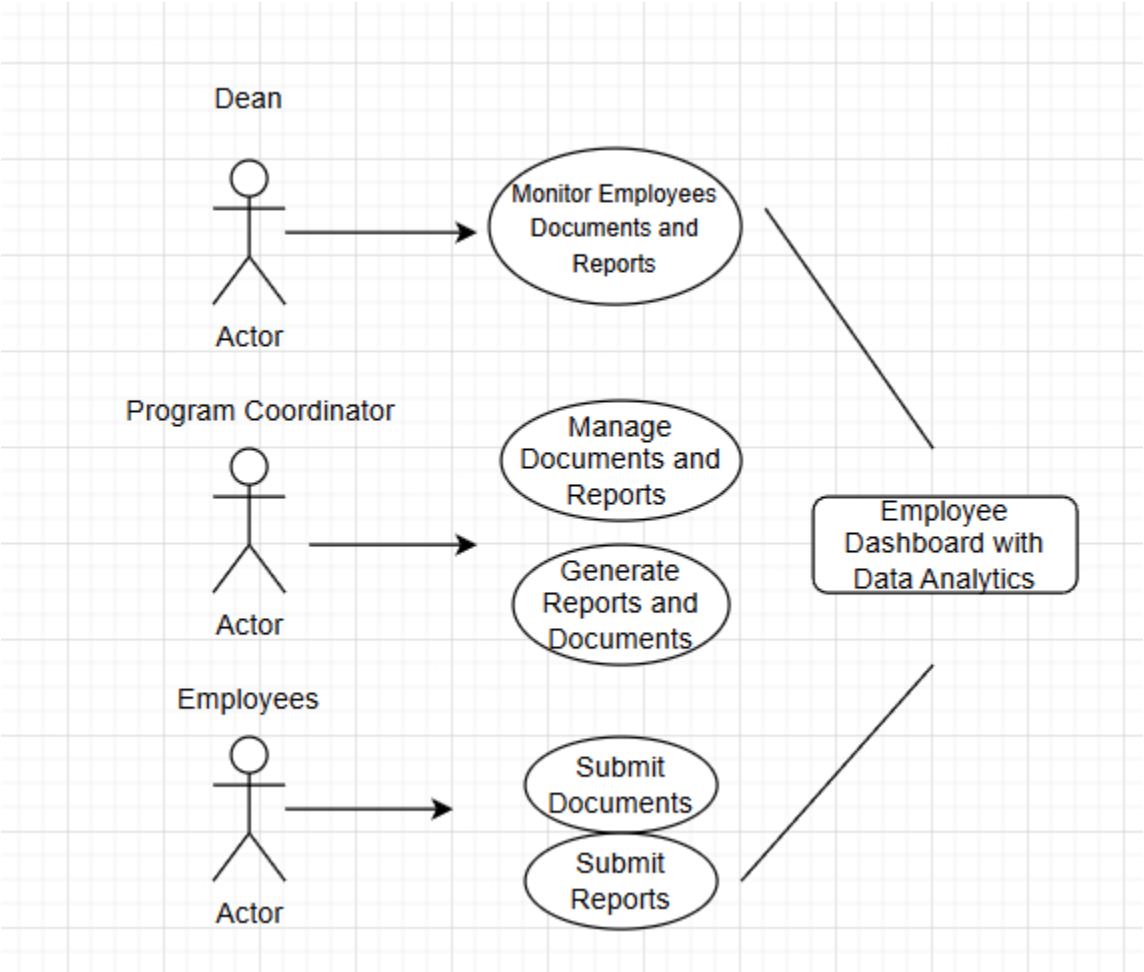
assignment tool, the Dean's view only reports, and the Faculty's report submission portal. Progress is monitored through Daily Scrum meetings to identify technical obstacles and ensure the analytics logic correctly processes employee records. This stage results in a working increment of the system, such as a functional login screen or a basic data visualization page.

4. *Testing and Product Demonstration* Once a sprint is finished, the newly developed features undergo rigorous testing to ensure they are secure and error free. The working version is then demonstrated to the stakeholders—the Dean, Coordinator, and Faculty—to gather their immediate feedback. This ensures that the analytics and reporting tools are intuitive and that the access levels correctly restrict information as intended.

5. *Next Sprint Planning* After the demonstration, the researchers reflect on the development process to identify what went well and where the workflow can be improved. Lessons learned are documented to refine the next cycle, and the team adjusts the Product Backlog based on the feedback received. This iterative process continues, moving from one sprint to the next, until the entire Employee Dashboard with Data Analytics is fully realized and evaluated against ISO 25010 standards.

Use Case Diagram

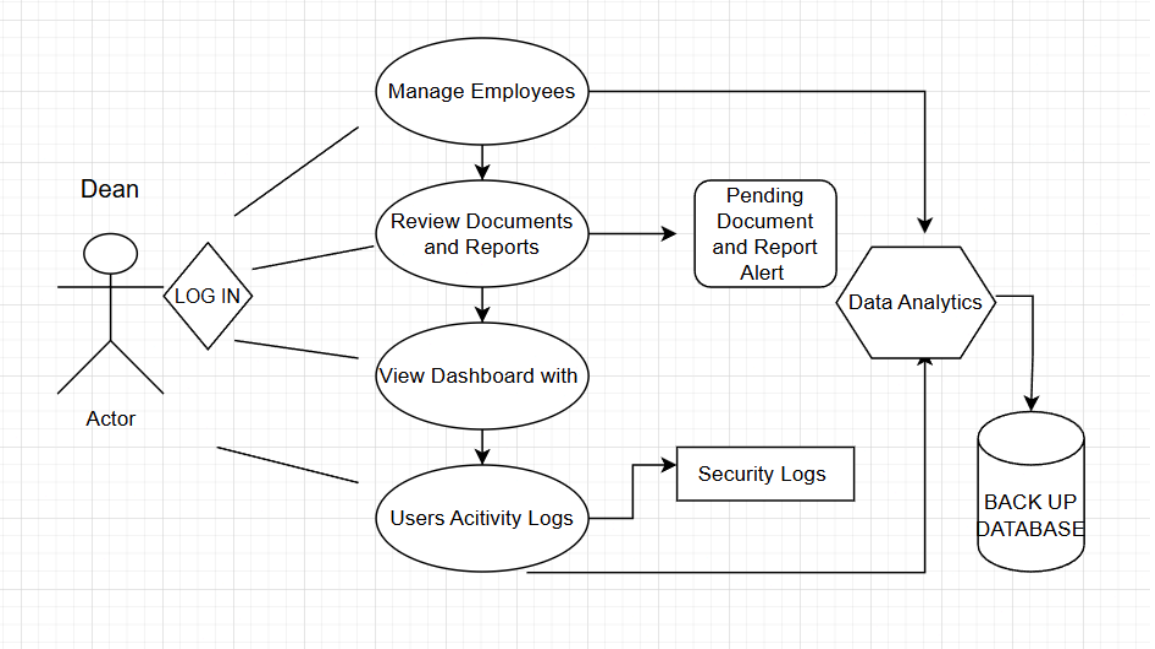
Figure 4: Use Case Diagram Employee Dashboard With Data Analytics



This use case diagram shows how the Employee Dashboard with Data Analytics is used by the Dean, Program Coordinator, and Employees. The Dean uses the system to monitor employee documents and reports for supervision and evaluation purposes. The Program Coordinator is responsible for managing documents and reports and generating needed reports to support

administrative work. Employees use the system to submit their documents and reports to ensure that records are complete and updated. The diagram presents a simple role based interaction that helps organize employee tasks, improve monitoring, and support decision making in the institution.

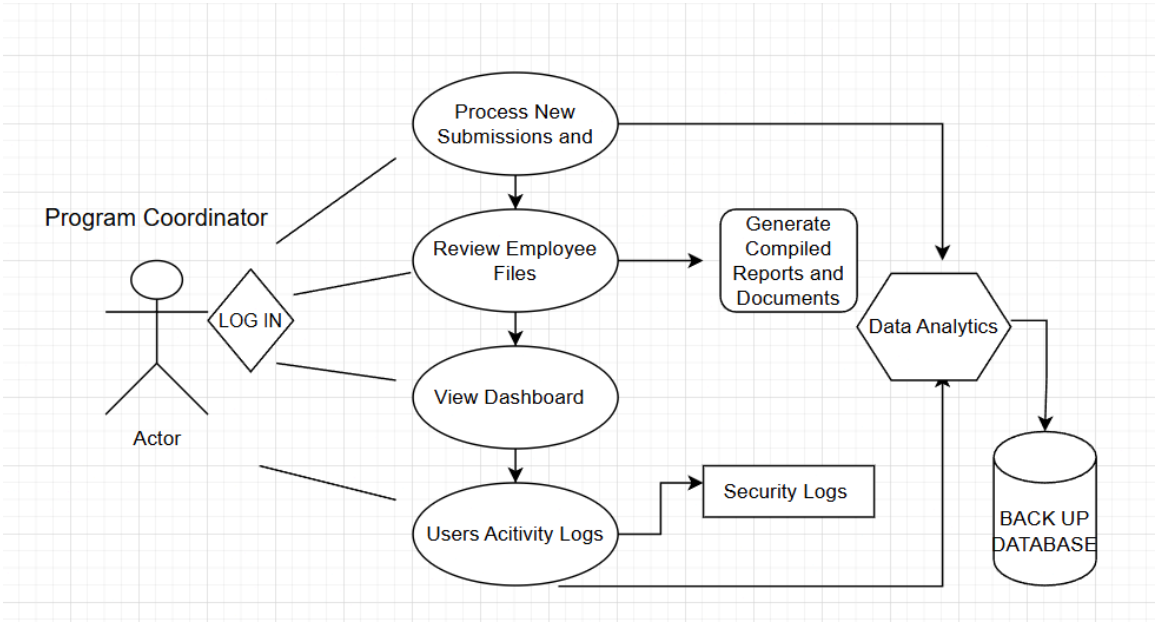
Figure 5. Use Case Diagram for Dean



This diagram presents the process flow of the Employee Dashboard with Data Analytics from the perspective of the Dean. The Dean logs in to the system to access functions such as managing employees, reviewing submitted documents and reports, and viewing the dashboard supported by data analytics. If documents or reports are incomplete, the system generates pending document and report alerts to notify the Dean for

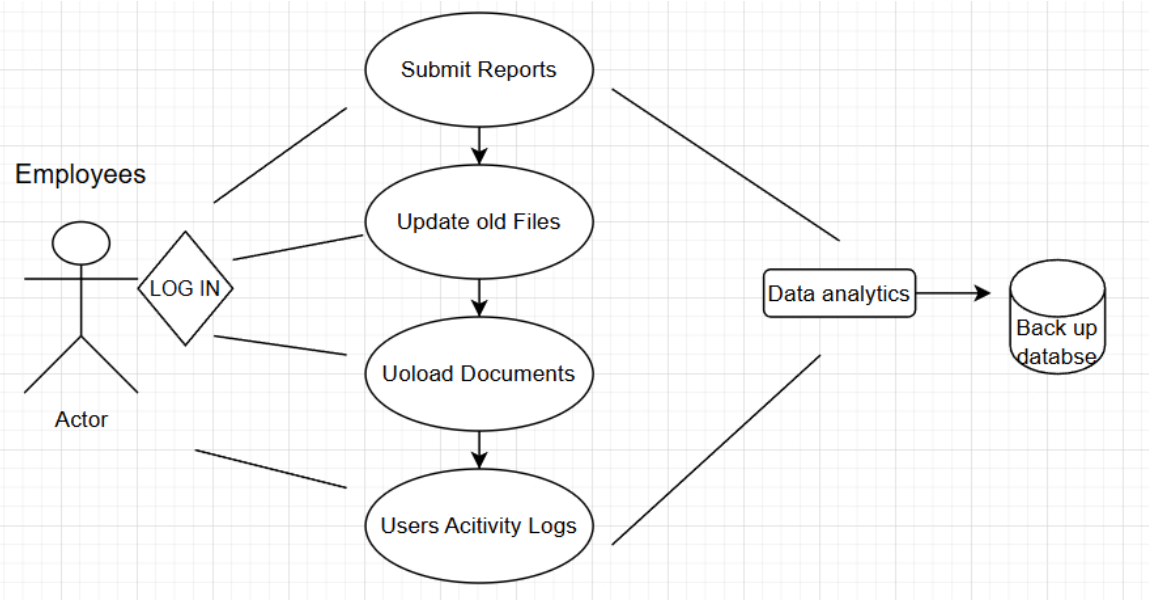
monitoring purposes. User activity logs are recorded as security logs, while all processed data are stored in a backup database to ensure system security, reliability, and proper decision support.

Figure 6. Use Case Diagram for Program Coordinator



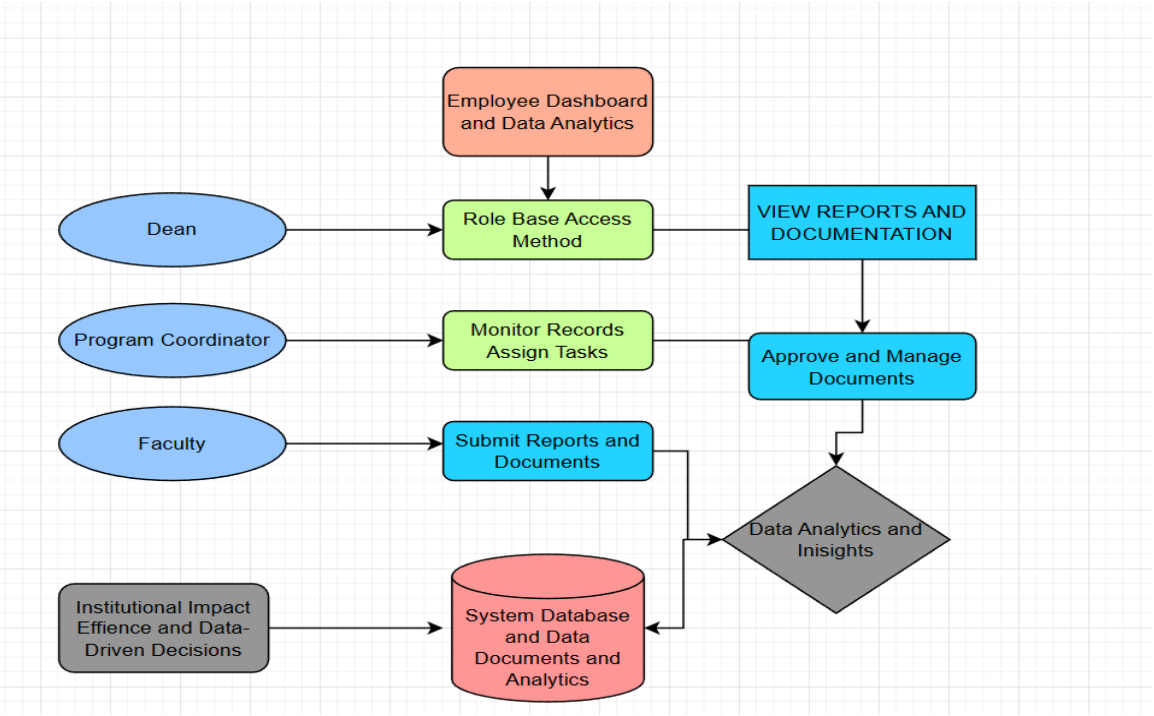
The use case diagram presents the Program Coordinator as the main user who accesses the system through a secure login to manage academic related records. After logging in, the Program Coordinator can process new submissions, review employee files, view the dashboard, and generate compiled reports and documents based on the reviewed data. All user activities are recorded in logs and supported by data analytics and a backup database to ensure security, reliability, and proper monitoring of system operations.

Figure 7. Use Case Diagram for Employees



The use case diagram shows the interaction of employees with the system after logging in through an authorized account. Once access is granted, employees can submit reports, update old files, and upload documents, which ensures that records remain current and complete. All actions performed by the users are recorded in activity logs and processed through data analytics, with information securely stored in a backup database to maintain data reliability and system integrity.

Architectural Design



This *System Architecture* illustrates how the platform manages the flow of information starting from a secure entry point. By using Role Based Access Control (RBAC), the system identifies the specific identity of each user, such as the Dean, Program Coordinator, or Faculty Employee. This initial step is vital for maintaining data privacy, as it ensures that each user can only interact with the features assigned to their role. For instance, while the Coordinator manages records and the Faculty submits updates, the Dean is restricted to a view only mode to prevent any unauthorized changes to official performance reports.

The middle section of the architecture represents the core logic where raw data is transformed into meaningful insights. Once a user submits reports or updates their professional records, the Data Analytics engine processes this information to create visual reports. This automated layer acts as the system's brain, replacing the need for manual record checking and ensuring that department leaders have access to accurate, real time analytics. By centralizing the analysis process, the system reduces human error and provides a clear overview of departmental productivity and document compliance.

The final part of the architecture is the System Database and Dashboard, which serves as the permanent storage for all institutional information. Every action taken by a user, from uploading a document to assigning a task, is recorded in this central database to keep the dashboard updated and consistent. This structure ensures that all official files and analytics are kept in one secure digital location, making them easily accessible for future audits or decision making. Ultimately, this architecture provides a reliable foundation that helps the department move away from disorganized manual systems toward a more efficient, data driven environment.

Participants of the Study

The participants of the study were composed of selected individuals who play important roles in the

academic and technical operations of the institution. These participants were chosen because of their direct involvement in decision making, teaching activities, and system administration. Their experiences and responsibilities provided valuable input needed to achieve the objectives of the study.

A total of eighteen participants took part in the study. This included one Dean and one Program Coordinator, each representing 5.56 percent of the respondents. Ten faculty members participated in the study, making up 55.56 percent of the total participants, while six IT administrators were also involved, representing 33.33 percent. All participants collectively accounted for one hundred percent of the study population.

Table 1. Participants of the Study

PARTICIPANTS	FREQUENCY	PERCENTAGE
Dean	1	5.56%
Program Coordinator	1	5.56%
Faculty	10	55.56%
IT admin	6	33.33%
Total	18	100%

Instrumentation

The interview guide was utilized to identify and determine the problems and challenges encountered by the Dean and Program Coordinator in managing employee records and gathering reports from faculty members. During the assessment, it was noted that the manual process of storing documents often leads to disorganized files and delayed performance tracking for the staff. The department heads also recommended the development of this system to help improve operational efficiency, provide cl data insights, and reduce the overall workload through a centralized digital platform.

ISO 25010 Standardize Questionnaire. The researcher made use of this tool to determine the extent of compliance of the developed system to using the ISO 25010 software quality standards.

Data-Gathering Procedure

1. Ethical clearance was secured from the Ethics Review Committee to ensure all data handling processes for the Employee Dashboard with Data Analytics comply with established research ethics

2. The researcher requested endorsement and approval for data gathering and system development from the thesis adviser and the designated department heads.

3. Permission was obtained to conduct interviews and consultations with the Program Coordinator, selected faculty employees, and an IT expert knowledgeable in administrative management systems.

4. Prior to data collection, the research instruments were reviewed and validated, and appropriate participants were identified based on their roles in handling employee records and departmental reports. Informed consent was obtained from all participants to ensure voluntary participation and to maintain strict adherence to ethical research and data privacy standards.

5. Upon approval from the Capstone Adviser and the Dean of the department, coordination was conducted to begin the data gathering activities and system requirements analysis.

6. Direct observations were carried out to supplement interview data, focusing on how faculty members

currently submit reports and how the coordinator manually tracks employee records and task completion.

7. Lastly, IT experts evaluated the developed *Employee Dashboard with Data* Analytics using a questionnaire based on the *ISO/IEC 25010* software quality standards to assess its functionality, security, and overall performance.

Data Analysis

The study employed a qualitative research approach using thematic analysis to examine data gathered from interviews with the participants. This method allowed the researcher to systematically analyze the shared experiences of the staff and identify key issues and challenges related to the current manual process of storing employee documents and submitting reports.

Through thematic analysis, the insights provided by the Dean, Program Coordinator, and faculty were categorized to determine the essential features of the proposed Employee Dashboard with Data Analytics. These findings directly guided the design of the system's core functions, including the role-based access control, the centralized document

management system, and the automated analytics engine for performance tracking.

In addition, a weighted mean was utilized to evaluate the system's compliance with the ISO/IEC 25010 Software Quality Standards. This approach provided a clear assessment of the system's quality, usability, and overall performance based on user feedback.

Table 2. Likert Scale

Weight	Weighted Mean	Descriptive Interpretation
5	4.20 - 5.00	Very Great Extent
4	3.40 - 4.19	Great Extent
3	2.60 - 3.39	Moderate Extent
2	1.80 - 2.59	Low Extent
1	1.00 - 1.79	Very Low Extent

REFERENCES

Alix, A., Datul, D. J., Fernando-Raguro, M. C., Lagman, A., & Adao, R. T. (2022). Faculty evaluation system platform with decision support mechanism. *2022 10th International Conference on Information and Education Technology (ICIET)*, 235–240. https://doi.org/10.1109/ICIET55102.2022.9779033

Amponsah, K. D., Mensah, R. O., & B. (2025). *Demystifying postgraduate research delays: Perceptions of graduate students in a selected public university*. Policy Reviews in Higher Education, 1–25. https://doi.org/10.1080/23322969.2025.2590059

Anitha, R. (2024). Synergizing design thinking and advanced data analytics in HRM: Transforming employee experience and organizational performance. *2024 International Conference on Emerging Research in Computational Science (ICERCS)*, 1–5. https://doi.org/10.1109/ICERCS63125.2024.10895111

Baig, M. I., Shuib, L., & Yadegaridehkordi, E. (2020). Big data in education: A state of the art, limitations, and future research directions. *International Journal of Educational Technology in Higher Education*, 17, 44. https://doi.org/10.1186/s41239-020-00223-0

Benavides, L. M. C., Tamayo Arias, J. A., Arango Serna, M. D., Branch Bedoya, J. W., & Burgos, D. (2020). Digital transformation in higher education: A systematic review. *Sustainability*, 12(20), 8691. https://doi.org/10.3390/s20113291

Buckingham Shum, S., et al. (2024). Human-centred learning analytics and AI in education: A systematic literature review. *Computers and Education: Artificial Intelligence*, 6, 100215. https://doi.org/10.1016/j.caeai.2024.100215

Chiyadzwa, I. T., & Mukute, J. (2025). Data-informed decision-making: Using analytics to drive strategic

management in higher education. In *Advances in Educational Marketing, Administration, and Leadership* (pp. 67–87). IGI Global. https://doi.org/10.4018/979-8-3693-6967-8.ch004

Choudhari, M., & Rangari, S. (2024). Review on educational academic performance analysis and dropout visualization by analyzing grades of student. *International Research Journal of Advanced Engineering and Management*, 2(5), 1404–1409. https://doi.org/10.47392/IRJAEM.2024.0194

Clemence, O., Luambano, I., & Mwantimwa, K. (2023). Adoption and application of electronic records systems in higher learning institutions. *Information Development*. Advance online publication. https://doi.org/10.1177/02666669231158336

Demszky, D., Liu, J., Hill, H. C., Jurafsky, D., & Piech, C. (2023). Can automated feedback improve teachers' uptake of student ideas? Evidence from a randomized controlled trial in a large-scale online course. *Educational Evaluation and Policy Analysis*, 45(1), 84–111. https://doi.org/10.3102/01623737231169270

Falolo, V. M., Capillas, K. T., Vergarra, N. A., & Cerbito, A. F. (2022). Student registration and records management services towards digitization. *International Journal of Educational Management and Development Studies*, 3(1), 131–147. https://doi.org/10.53378/352867

Freeman, B., Leihy, P., Teo, I., & Kim, D. K. (2021). Rapid, centralised decision-making in a higher education emergency. *Quality Assurance in Education*, 29(4), 393–407. https://doi.org/10.1108/QAE-12-2020-0154

Fullerton, C. E., Gaharwar, S. S., & Jaselskis, E. J. (2025). Strategic web-based data dashboards as monitoring tools for promoting organizational innovation. *Buildings*, 15(13), 2204. https://doi.org/10.3390/buildings15132204

Guzmán-Valenzuela, C., Gómez-González, C., Rojas-Murphy Tagle, A., & Villalobos, C. (2021). Learning analytics in higher education: A preponderance of analytics but very little learning? *International Journal of Educational Technology in Higher Education*, 18, 23. https://doi.org/10.1186/s41239-021-00258-x

Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275-285. https://doi.org/10.1016/j.susoc.2022.05.004

Hassan, M., & Rahman, S. (2025). A blockchain-based models for student information systems. *Journal of Academic Technology and Security*, 8(2), 44-59. https://doi.org/10.1016/j.jats.2025.01.004

Ikwunne, T. (2021). *Designing mobile health for user engagement: The importance of socio-technical approach* (Doctoral dissertation, University of Bristol). ResearchGate.

Kobi, J. (2025). Developing dashboard analytics and visualization tools for effective performance management and continuous process improvement. *International Journal of Innovative Science and Research Technology*, 9(5). https://doi.org/10.38124/ijisrt/IJISRT24MAY1147

Kwon, S., Kim, W., Bae, C., et al. (2021). The identity changes in online learning and teaching. *International Journal of Educational Technology in Higher Education*, 18, 67. https://doi.org/10.1186/s41239-021-00304-8

Lan, T., & Li, M. (2022). Design of college digital enrollment system based on big data platform. *6th International Conference on Wireless Communications and Applications*. https://doi.org/10.1109/ICWCAPP57292.2022.00055

Lauró, A., Fonseca, D., Villegas, E., Aláez, M., & Romero, S. (2021). Educational data mining application for improving academic tutorial sessions. *International*

Conference on Technological Ecosystems for Enhancing Multiculturality.

Li, C. (2022). Construction of digital management courses in the big data era. In J. Macintyre et al. (Eds.), *Machine Learning and Big Data Analytics for IoT Security and Privacy* (pp. 385–391). Springer. https://doi.org/10.1007/978-3-030-89508-2_54

Liu, J. (2023). Design and application of human resource management system based on data mining technology. *Procedia Computer Science*, 228, 241–252. https://doi.org/10.1016/j.procs.2023.11.028

Liu, J. (2025). Students' learning diagnosis and evaluation system with decision support. *Learning Technologies and Learner Well-being*, 1(1). https://doi.org/10.57180/LTLW5317

Liu, T., Sun, L.-Q., Ren, R., Wu, Y.-H., Kang, Y., & Wu, S.-P. (2024). Design and practice research of digital enrollment management system. *International Conference on Digital Technology in Education*, 1–7. https://doi.org/10.1145/3696230.3696246

Mammadova, G., Ismibayli, R., & Rzayeva, S. (2025). Schedule system for universities under the Bologna education process. https://doi.org/10.1007/978-3-031-73420-5_32

McKinney, L., Burridge, A. B., Bowers, G., Lee, M. M., & Miller-Waters, M. (2022). Incentivizing full-time enrollment at community colleges. *Community College Review*, 50(2), 196–220. https://doi.org/10.1177/00915521211061416

McNaughtan, J., & Irving, M. (2025). Strategic enrollment management. In *The Community College President's Guide to Success* (pp. 95–115). Springer. https://doi.org/10.1007/978-3-032-10107-5_6

Niazi, A. S., & Al-Ahmadi, M. S. (2025). Comparative analysis of grading models using fuzzy logic. *Journal*

of Educational Data Science and Analytics, 4(2), 112–129. https://doi.org/10.5567/jedsa.2025.040203

Plante, S., LeSage, A., & Kay, R. (2022). Examining online course evaluations and student feedback. *Journal of Educational Informatics*, 3(1), 21–31. https://doi.org/10.51357/jei.v3i1.182

Prayoga, A. A., & Hasanuddin, M. (2025). Development of an employee performance monitoring information system. *Journal of Computer Science and Artificial Intelligence*, 2(2). https://doi.org/10.64803/jocsaic.v2i2.63

Sandoval-Ríos, F., Gajardo-Poblete, C., & López-Núñez, J. A. (2025). Role of data literacy training for decision-making in teaching practice. *Frontiers in Education*, 10, 1485821. https://doi.org/10.3389/feduc.2025.1485821

Secreto, P. V., Ofrin, D., & Tabo, E. (2025). Data-driven decision-making through real-time student progress monitoring. *International Journal in Information Technology in Governance, Education and Business*, 7(1), 97–115. https://doi.org/10.32664/ijitgeb.v7i1.147

Tan, E. T. S., Tabudlong, A. L. C., Lomantas, J. M. E., & Estember, R. D. (2024). Evaluation and improvement of enrollment information systems. *World Symposium on Software Engineering*, 22–26. https://doi.org/10.1145/3698062.3698084

Taye, et al. (2023). Exploring the role of artificial intelligence in class scheduling. *International Conference on Computer Science and Emerging Technologies*, 1–11. https://doi.org/10.1109/CSET58993.2023.10346898

Villaruz, R. J., & Diamante, R. (2024). Enrollment appraisal using rule-based decision support system. *Journal of Information Technology and Computing*, 6(1), 85–94. https://doi.org/10.69478/JITC2024v6n002a07

Xiao, L. (2025). Research on teaching quality evaluation system. *Journal of Education and Educational Research*, 7(3), 154–158. https://doi.org/10.54097/904bhq86

Yang, J. (2025). Fuzzy comprehensive evaluation system for learning management. *Scientific Reports*, 15, 18113. https://doi.org/10.1038/s41598-025-01782-w

Zhang, Q. (2022). Optimized solution to course scheduling problem. *Journal of Intelligent Systems*, 31(1), 1065–1073. https://doi.org/10.1515/jisys-2022-0114

Zipser, N., Yu, K. W., & Mincieli, L. (2021). How student evaluations of teaching affect enrollment. *Assessment & Evaluation in Higher Education*, 46(2), 292–306. https://doi.org/10.1080/02602938.2020.1808593

Zhai, Z., Martínez, J. F., Beltran, V., & Martínez, N. L. (2024). Digital technologies adoption in agriculture. *Sustainability*, 16(11), 4431. https://doi.org/10.3390/su16114431

APPENDICES

Appendix A

Interview Guide

1. What are the specific problems and challenges encountered by Program Coordinators and Dean regarding the current manual process of Organizing documents and reports?

APPENDIX B

Questionnaire for IT Experts

Instructions: Please indicate your assessment as to the compliance of the system to the ISO/IEC 25010:2011 requirements and its relevance in terms of the system's efficiency, usability, reliability, functionality. Please check the corresponding column that best represents your response using the following scales:

5 – Very Great Extent 4 – Great Extent 3 – Moderate Extent
2 – Low Extent 1 – Very Low Extent

(PART I) Quality Criteria of System based on ISO/IEC 25010:2011					
Attributes	**Level of Agreement**				
A. Functional Suitability	**5**	**4**	**3**	**2**	**1**
a.1 Functional completeness. The system covers all the specified tasks and user objectives.					
a.2 Functional correctness. The system provides the correct results with the needed degree of precision.					
a.3 Functional appropriateness. The system facilitates the accomplishment of specific tasks, and objectives.					

B. Performance Efficiency	**5**	**4**	**3**	**2**	**1**
b.1 Time Behavior. The system's response and processing times and throughput rates when performing its functions, meet requirements.					
b.2 Resource Utilization. The system's amounts and types of resources used when performing its functions, meet requirements.					
b.3 Capacity. The system's maximum limits of parameter meet requirements.					
C. Compatibility	**5**	**4**	**3**	**2**	**1**
c.1 Co-existence. The system can perform its required functions efficiently while sharing a common environment and resources with other products, without detrimental impact on any other product.					
c.2 Interoperability. The system can exchange information and use the information that has been exchanged.					

D. Usability	5	4	3	2	1
d.1 Appropriateness Recognizability. The system allows users to recognize if it is appropriate for their needs.					
d.2 Learnability. The system can be used by specified users to achieve specified goals of learning to use the application with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use.					
d.3 Operability. The system has attributes that make it easy to operate and control.					
d.4 User Error Protection. The system protects users against making errors.					
d.5 User Interface Aesthetics. The system's user interface enables pleasing and satisfying interaction for the user.					
d.6 Accessibility. The system can be used by people with the widest range of characteristics and capabilities to achieve a					

specified goal in a specified context of use.					
E. Reliability	**5**	**4**	**3**	**2**	**1**
e.1 Maturity. The system meets the needs for reliability under normal operation.					
e.2 Availability. The system is operational and accessible when required for use.					
e.3 Fault tolerance. The system operates as intended despite the presence of hardware and software faults.					
e.4 Recoverability. The system can recover the data directly affected and re-established the desired state.					
F. Security	**5**	**4**	**3**	**2**	**1**
f.1 Confidentiality. The system ensures that data are accessible only to those authorized to have access.					
f.2 Integrity. The system is developed to prevent unauthorized access to, or					

modification of computer programs and data.					
f.3 non-repudiation. The system's event can be proven to have taken place and cannot be repudiated.					
f.4 Accountability. The system's action of an entity can be traced uniquely to the entity.					
f.5 Authenticity. The systems identity of a subject or resource can be proved to be the one claimed.					
G. Maintainability	**5**	**4**	**3**	**2**	**1**
g.1 Modularity. The system is composed of discrete components such that a change to one component has minimal impact on other components.					
g.2 Reusability. The system's asset can be used in more than one system, or in building other assets.					

g.3 Analyzability. The system has the possibility to assess the impact on a product or system of an intended change to one or more of its parts, or to diagnose a product for deficiencies or causes of failures, or to identify parts to be modified.					
g.4 Modifiability. The system can be effectively and efficiently modified without introducing defects or degrading existing product quality.					
g.5 Testability. The system can establish test criteria and test can be performed to determine whether those criteria have been met.					
H. Portability	**5**	**4**	**3**	**2**	**1**
h.1 Adaptability. The system can effectively and efficiently be adapted for different or evolving hardware, software or other operational or usage environments.					
h.2 Installability. The system can be successfully installed					

and/or uninstalled in a specified environment.					

APPENDIX C

Curriculum Vitae

RODWIN D. VICQUERRA

PERSONAL DATA

Birth Date : July 31, 2003

Birthplace : Roxas, Isabela

Gender : Male

Citizenship : Filipino

Religion : Roman Catholic

Address : San Antonio, Roxas, Isabela

Email Address : rodwinvicquerra@spup.edu.ph

EDUCATIONAL BACKGROUND

Bachelor's degree	:	

Senior High School	:	La Salette of Roxas College, 2022
Junior High School	:	La Salette of Roxas College, 2020

CERTIFICATIONS

Certificate of Participation, ITE CONVENTION 2024

Certificate of Participation, ITE CONVENTION 2025

Certificate of Appreciation, SITE Film Festival 2025

Certificate of Participation, SITE Film Festival 2025

Certificate of Completion, Employability Advantage Cybersecurity

SEMINARS/WORKSHOPS/CONFERENCES ATTENDED

Event : ITE Convention 2024

Sustainable Synergy: Integrating Information Technology and Engineering for a Greener Tomorrow
April 15-17, 2024

Arjae A. Lara

PERSONAL DATA

Birth Date : November 10, 2000

Birthplace : Cauayan, Isabela

Gender : Male

Citizenship : Filipino

Religion : Roman Catholic

Address : Dagupan, San Mateo, Isabela

Email Address : arjaelara@spup.edu.ph

EDUCATIONAL BACKGROUND

Bachelor's degree	:	

Senior High School	:	Philippine Yuh Chiau School, 2020
Junior High School	:	Philippine Yuh Chiau School, 2018

CERTIFICATIONS

Certificate of Participation, ITE CONVENTION 2024

Certificate of Participation, ITE CONVENTION 2025

Certificate of Completion, Cybersecurity Project Internship Employability Advantage Australia in Partnership with AusBiz

SEMINARS/WORKSHOPS/CONFERENCES ATTENDED

Event : ITE Convention 2024

Sustainable Synergy: Integrating Information Technology and Engineering for a Greener Tomorrow
April 15-17, 2024

AFFILIATIONS

Hack.the.North.ph Academy
Member
Tuguegarao City, Cagayan
2025-Present