



Republic of the Philippines
CAVITE STATE UNIVERSITY
Don Severino de las Alas Campus
Indang, Cavite

**DEVELOPMENT OF A STUDENT SCHEDULE MANAGEMENT SYSTEM FOR THE
COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY AT CAVITE STATE
UNIVERSITY – MAIN CAMPUS**

Rationale

Managing student schedules efficiently is a crucial aspect of academic administration, ensuring that students, professors, and department staff have access to accurate and up-to-date class schedules. However, the current scheduling process at Cavite State University – Main Campus poses significant challenges, such as delays in notifying students of schedule changes, unplanned classroom adjustments, and the unavailability of professor details. These issues lead to confusion, missed classes, and scheduling conflicts, ultimately affecting academic performance and operational efficiency.

The current scheduling system relies on manual posting of class schedules, making it difficult to implement changes promptly. Students frequently experience delays in being informed of schedule modifications, while faculty members struggle with unbalanced teaching loads and conflicts in classroom assignments. Moreover, the absence of an automated notification system further complicates schedule management, requiring manual dissemination of information through department staff. These inefficiencies highlight the need for a more streamlined and accessible scheduling system.

This study proposes the development of a *Student Schedule Management System* designed to improve accessibility, scheduling accuracy, and communication within the College of Engineering and Information Technology. The system will serve as a centralized platform for students and professors to access their schedules in real-time while allowing department administrators to manage, update, and approve schedules more efficiently. By incorporating automated notifications and a structured scheduling process, this system aims to enhance academic scheduling operations and reduce scheduling conflicts within the college.

Significance of the Study

The implementation of a student schedule management system will provide substantial benefits to various stakeholders. For students, the system offers a convenient platform for accessing schedules, reducing confusion caused by sudden changes and ensuring that they are always informed of their class arrangements. Professors will benefit from a more organized scheduling process, minimizing conflicts and ensuring a balanced teaching workload.

Department administrators will experience improved efficiency in managing and approving schedules. The system will reduce the risk of overlapping schedules, classroom conflicts, and miscommunication regarding faculty assignments. By automating notifications, the system ensures that schedule updates reach students and professors in real-time, eliminating the delays associated with manual posting methods.

Additionally, this study contributes to the broader academic and administrative landscape by promoting the integration of technology in university operations. A digital scheduling system aligns with modern educational trends, streamlining administrative processes and enhancing overall academic management. Future researchers may also use



Republic of the Philippines
CAVITE STATE UNIVERSITY
Don Severino de las Alas Campus
Indang, Cavite

this study as a reference for further advancements in digital scheduling solutions, expanding its application to other institutions and administrative domains.

Scope and Limitations

This study focuses on the design and development of a student schedule management system specifically for the College of Engineering and Information Technology at Cavite State University – Main Campus. The system will include key modules such as the Account Module, Schedule Module, Display Module, Report Module, and Notification Module. These modules will allow users to create, update, view, and manage schedules efficiently.

However, the system has certain limitations. It will not integrate with third-party learning management systems or external databases outside the university's existing infrastructure. Additionally, while the system provides a notification feature, it does not include real-time messaging or chat support. The initial implementation will focus on schedule management and approval processes, with future enhancements potentially incorporating additional functionalities such as AI-based scheduling recommendations and expanded integration with university-wide systems.

Objectives

The general objective of this study is to develop a *Student Schedule Management System* that enhances accessibility, improves timetable management, and optimizes scheduling processes for students, classrooms, and faculty members.

Specifically, this study aims to:

- Identify scheduling problems through surveys and interviews.
- Analyze collected data using a fishbone diagram to determine key scheduling issues.
- Design the system with the following core features: Account Module, Schedule Module, Display Module, Report Module, and Notification Module.
- Develop the system using the Visual Studio Integrated Development Environment (IDE) with HTML, CSS, JavaScript, Bootstrap, PHP, and MySQL.
- Test the system through unit testing, integration testing, and system testing.
- Evaluate the project based on ISO 25010 software quality standards to ensure usability, efficiency, and functionality.

Expected Output

The expected output of this study is a fully functional *Student Schedule Management System* that provides a centralized and automated solution for managing student schedules. The system will include features such as an interactive schedule display, automated notifications for schedule updates, an administrative approval process for schedule changes, and a reporting module for analyzing scheduling trends.



Republic of the Philippines
CAVITE STATE UNIVERSITY
Don Severino de las Alas Campus
Indang, Cavite

The system is expected to improve scheduling efficiency, reducing conflicts and delays while ensuring that students and faculty members receive accurate and up-to-date schedule information. A comprehensive user guide will be provided to facilitate smooth adoption, and usability testing will be conducted to refine system functionalities. Ultimately, the system will serve as a model for enhancing schedule management processes within the university.

References

- Laudon, K. C., & Traver, C. G. (2021). *E-commerce 2021: Business, technology, society* (16th ed.). Pearson.
- Pressman, R. S. (2019). *Software engineering: A practitioner's approach* (9th ed.). McGraw-Hill Education.
- Sommerville, I. (2020). *Software Engineering* (10th ed.). Pearson Education.
- Tanenbaum, A. S., & Van Steen, M. (2017). *Distributed Systems: Principles and Paradigms* (3rd ed.). Pearson Education.