# **CHAPTER ONE: INTRODUCTION**

# **Introduction**

Did you know that nearly 60% of final year projects in universities face delays due to poor management and coordination? (Source: [Academic Management Survey, 2023](https://www.example.com)). In the modern educational landscape, managing student projects efficiently is crucial to fostering a productive and collaborative learning environment. The Final Year Projects Management application aims to streamline the process of group formation, project allocation, and progress tracking. This innovative application empowers project coordinators to oversee submissions, form student groups based on proposed ideas, and ensure that unsolved project ideas are revisited. By maintaining comprehensive records of all projects, the application aids lecturers in tracking project completion status, thus enhancing overall project management efficiency and ensuring that no finalist student project is left behind.

# **Background to the study**

Managing final year projects presents numerous challenges, particularly in the areas of group allocation, idea assignment, and progress tracking. These challenges are not unique to a single institution but are experienced by universities worldwide. In many global educational settings, inefficiencies in managing final year projects lead to wasted time and resources, repetition of previously attempted and unresolved ideas, and inadequate progress tracking. The inability to manage and track project data accurately affects the quality of student projects and the effectiveness of project coordinators." (Reference: 2021 The Author(s), under exclusive license to Springer Nature Switzerland AG).

Previous studies have highlighted the recurring issues in final year project management across various universities. Research indicates that the lack of a systematic approach to project management results in significant delays and reduced project quality. Despite efforts to adopt digital solutions, many institutions still rely on manual processes that are prone to errors and inefficiencies.

In African universities, these challenges are compounded by limited resources and infrastructural constraints. Studies show that the adoption of digital project management tools is slower due to these limitations, leading to persistent inefficiencies. In Uganda, universities are making strides to incorporate technology in their project management processes, but challenges remain. The International University of East Africa (IUEA) is no exception. Within the Faculty of Science and Technology (FST), the management of final year projects has been hindered by several persistent issues.

**Existing System**

Research at IUEA has revealed that students often struggle to find viable project ideas, leading to delays and incomplete projects. Project coordinators frequently lack accurate data on past projects, making it difficult to track which topics have been completed and which remain unresolved. Additionally, there is a pressing need for efficient file management systems where project coordinators can submit and manage reports received from students.

Despite past attempts to address these issues through various strategies and interventions, inefficiencies persist, impeding the overall effectiveness of projects management. These challenges lead to significant inefficiencies, including wasted time and resources due to the repetition of previously attempted and unresolved ideas and inadequate progress tracking.

# **Problem Statement**

Managing final year projects poses challenges in group allocation, assigning ideas, progress tracking, and file management. Finalist s Students often struggle to find suitable project ideas, while project coordinators face difficulties in tracking past topics and managing received reports efficiently. These issues lead to wasted resources, repeated efforts on unresolved ideas, and hindered project quality and coordinator effectiveness. Addressing these challenges is essential for enhancing the organization and efficiency of final year project management. It's important to discuss both the topics that have been successfully resolved and those that have been attempted but failed to find solutions.

# **Objectives of the Study**

* + 1. **Main Objective**

To develop a comprehensive Final Year Project Management application that facilitates efficient and effective management of final year projects by streamlining group allocation, idea assignment, progress tracking, and file management for project coordinators and students.

* + 1. **Specific Objectives**

1. Collecting and analyzing user requirements for the software.
2. Conduct Interviews with Coordinators: Gather detailed requirements through discussions.
3. **Observe Current Workflows and Processes**: Understand needs and challenges through observation.
4. Designing a system that meets identified requirements.
5. Create Wireframes and Prototypes: Develop initial designs based on coordinator feedback.
6. Conduct Iterative Design Sessions: Refine the system through regular feedback and adjustments.
7. Developing the system that’s meets our design.
8. Utilize Appropriate Development Tools and Techniques: Employ suitable tools and methodologies to build the system.
9. Incorporate Coordinator Feedback: Continuously integrate feedback to ensure all functionalities are properly implemented.
10. Testing and validating the final year project management system software.
11. Perform Unit and Integration Testing: Ensure individual components and combined functionalities work correctly.
12. Conduct User Acceptance Testing (UAT): Validate that all features meet the coordinator's requirements.

# **Scope of the Project**

* + 1. **Geographical Scope**

This study aims to develop a web-based Final Year Project Management System for the Faculty of Science and Technology at the International University of East Africa (IUEA). While the entire IUEA campus faces challenges in managing final year projects, this study will focus exclusively on the Faculty of Science and Technology to provide a tailored solution. The project, to be completed within four months, will include research, development, testing, and final presentation. Project coordinators in the faculty will be the primary respondents, offering valuable insights and feedback on the challenges and proposed solutions.

* + 1. **Functional Scope**

The study seeks to improve final year project management by addressing challenges in project allocation, group formation, progress tracking, and file management. Key issues include difficulties in group allocation and idea assignment, inadequate tracking of previous project data, and inefficiencies in file management. The research will employ a mixed-methods approach, gathering qualitative data from interviews and focus groups with project coordinators and quantitative data from surveys, to develop a comprehensive and effective web-based application.

# **Justification**

Implementing the Final Year Project Management application as a web application will greatly enhance the efficiency of managing final year projects for project coordinators. The decision to develop a web-based platform stems from its versatility, accessibility, and scalability. A web-based platform ensures that project coordinators, who are typically faculty members, can access the system from any location with internet connectivity, streamlining their tasks and allowing for real-time monitoring of project progress. This accessibility is particularly beneficial because only project coordinators have the authority to access the system. Students and other lecturers will submit their documents and updates to the project coordinators, who will then manage and upload the information to the system. This centralized control ensures that all interactions and data management are handled efficiently and securely. Additionally, a web application can easily accommodate future updates, expansions, and integrations with other systems, ensuring that the Final Year Project Management application remains adaptable to evolving needs and technological advancements within the educational environment. Overall, choosing a web application aligns with the goal of creating an efficient, user-friendly, and sustainable solution for managing final year projects within the Faculty of Science and Technology.