**DESIGN AND IMPLEMENTATION OF STUDENT HOSTEL ALLOCATION SYSTEM**

A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

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**APPROVAL PAGE**

This is to certify that this work ’’ Design and Implementation of Hostel Allocation System’’ a case study of Federal University of Technology Owerri.

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**ABSTRACT**

This project is aimed at the design of an automated system for hostel allocation. It takes into consideration the change from manual to an automated system, seeing the problems encountered in the process of hostel allocation manually in the Institution. With the use of computer-based method, the allocation of hostel in this institution will be easy for both students and staff involved as this project will bring efficiency in data processing, effectiveness in record keeping and good database to capture and store the student’s population seeking for hostel accommodation.

**CHAPTER ONE**

* 1. **INTRODUCTION**
  2. **BACKGROUND OF THE STUDY**

Accommodation is a place for living or lodging. It can be permanent or temporal. This project takes as its case study the process of allocation of hostel accommodation in Federal University of Technology, Owerri.

The students’ Affairs unit of the institution Takes care of such matters that concern the students as regards to the school. It is headed by the Dean of students Affairs and the office is located at the school of science (SOSC) building.

The office is made up of different units:

* Students WELFARE unit
* Sports Unit
* Scholarship Unit
* NYSC Unit

They have the responsibility of protecting students interest and take care of their welfare. Another major responsibility they have to organize and conduct Students Union Government (S U G) Elections.

This research project is particularly concerned about the Welfare Unit. This unit is responsible for the allocation of hostel rooms to students. They take care of the maintenance of the hostels like re-painting the building, replacement of broken lovers, payment of the cleaners,managing of rooms, and common rooms, prompt supply of water and electricity to make the hostel befitting or conducive for residence.

This institution has Six buildings for accommodation named hostel A to E and post graduate and scholarship hostel, This project is particularly concerned with that of the undergraduates which is hostel A to E.

The allocations of these hostels are done at the beginning of every session. For the functionality of any system, the need for a well coordinated mode of operation cannot be over emphasized. Therefore, the development of software for such a system is a paramount step in the right direction towards the attainment of the goal of a coordinated centralized mode of operation. Following this, the project is designed to provide a situation where students can easily be allocated to their accommodation based on a well defined algorithm. The new automated system will be free from human influence which is characterized by errors. It will provide an efficient and effective data processing method. This project which involves software development will therefore, provide a means of controlling the operation of the system using computers. Thus, the result will be the evolution of a computer–based system predicted upon a program which when implemented will eliminate the lapses present in the current manual system.

**1.2 STATEMENT OF THE PROBLEM**

One of the major problems that have been facing the institutions in Nigeria is lack of adequate accommodation for students. The universities are meant to provide all the necessary facilities needed to create a good and conducive learning environment, butsome institutions are not able to provide hostel accommodations for their students even the ones that have, do not have adequate number to accommodate all the students.

The situation is the same in Federal University of Technology, Owerri. This therefore, constitutes much trouble to students at the beginning of every new session. It gives the students headache because many of them will leaves their homes both far and near to come to school to process their accommodation which takes several days or even weeks, and unfortunately, It happens that after all the struggling at the students affairs office, the student may not be allocated to any room. And moreover, the money paid may not be refunded.

The staff themselves also passes through many difficulties trying to settle the students. Most times, many fraudulent activities go on during the process, Favoritism becomes the order of the day and any student that cannot pave his or her way in, loses out. Therefore it has to be noted that those problems are as a result of the type of system used which is a manual system. This system is inefficient, slow and unsatisfactory in the processing of hostel allocation.

**1.3 OBJECTIVES OF THE PROJECT**

The objective of this project is to design and develop system that can

1. Capture and store the records of students’ population seeking hostel accommodation
2. Store and classify the population
3. Produce an allocation algorithm for allocating available rooms to applicants
4. Produce relevant report for decision making.
   1. **SIGNIFICANCE OF THE PROJECT**

The significance of this study is that it will provide the institute with an opportunity to introduce this new technology, which will ease the duty of the student welfare unit.

* 1. **PROJECT SCOPE**

this research covered areas as identified and grouped into:

* Data capturing,
* Information Processing, and
* Reporting.

This project will not consider how facilities in the hostels are managed and maintained. The topics will not cover the payments made to get the accommodation.

**1.6 LIMITATIONS**

During the research process, some difficulties and limitations where encountered. They include;

* Inadequate funds,
* Limited time in the gathering of facts and findings,
* Insufficient Local literature and/or resources.