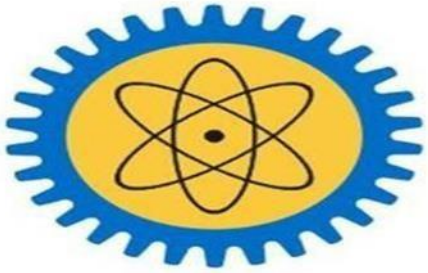

BUSITEMA UNIVERSITY

Pursuing Excellence

FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING AND INFORMATICS

STUDENT VERIFICATION AND SEAT ALLOCATION SYSTEM

FINAL YEAR PROJECT REPORT BY

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A FINAL YEAR PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF COMPUTER ENGINEERING IN PARTIAL FULFILLMENT FOR THE AWARD OF A BACHELOR OF SCIENCE IN COMPUTER ENGINEERING OF BUSITEMA UNIVERSITY

September, 2023

DECLARATION

I MUWANGUZI JOSHUA BU/UG/2019/0117 declare that this project proposal is original and has not been published or submitted before to any university or higher institution of learning.

Sign

Date 2nd October 2023

APPROVAL

This is to certify that the Final Year Project Report entitled STUDENT VERIFICATION AND SEAT ALLOCATION SYSTEM submitted by MUWANGUZI JOSHUA, Registration Number: BU/UG/2019/0117 has been completed under our supervision and guidance.

Signature:

Dr. ALUNYU ANDREW

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ABSTRACT

Examinations are used to objectively evaluate and assess students' learning outcomes, ability to demonstrate knowledge, understanding and potential for other employment skills development. Examinations assess the candidates' achievement level and even places them in their career paths. Impersonation is a form of malpractice, an illegal practice that derails the purpose of examinations. This makes inequality and unfair chances between the eligible students and the culprits.

The Student verification and seat allocation system includes the two step verification process where a student is verified before entering the examination room. This was archived by a process where a student presents his /her ID (RFID card) tagged with the student's tag and swipes the card on the reader. The Liquid Crystal Display (LCD) shows the student a prompt text to input the fingerprint to proceed. The student is assigned a seat number randomly after the fingerprint is verified.

Therefore, this project was to develop and implement a comprehensive solution that effectively addresses and mitigates the issue of impersonation, ensuring a secure and cheat-free environment during examinations. This further described in chapter one with its significances to the institutions and students body. The scope of this project targeted the institutions of high learning that is universities specifically for examination period. The methodology is well discussed in chapter three and the implementation in chapter four. The time frame was six months which involved challenges during development as described in chapter six.

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LIST OF ABBREVIATIONS

UNEB	Uganda National Examinations Board
ICT	Information and Communications Technology.
RFID	Radio-Frequency Identification
ID	Identification
MUK	Makerere University
CoCIS	College of Computing and Information Science
NFC	Near Field Communication
LED	Light Emitting Diode

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CHAPTER ONE: INTRODUCTION

1.1 Background

Examinations are used to objectively evaluate and assess students' learning outcomes, ability to demonstrate knowledge, understanding and potential for other employment skills development. Examinations assess the candidates' achievement level and even place them in their career paths. Actions and practices that undermine the credibility of examinations seriously threaten the quality of the education system and the attainment of its selective goals. [3] Concern over dishonest behavior at institutions of higher learning should extend beyond campus boundaries. Dishonesty on campus is likely a result of students' ethics and values that they will take with them when they graduate and move into the workplace. [1]

Cheating in tests and examinations can be defined as dishonest practice encompassing any action by an individual or group of students to gain an undue advantage in any form of assessment, coursework, test or examination. Such actions include:

- Looking at an examination paper or answer sheet of another student.
- Actively colluding with another student within the examination hall either by signals or more direct electronic means (mobile phones etc.)
- Obtaining information from a third party outside of the examination hall via digital technology (mobile phones etc.)
- Impersonating or substituting, that is taking either the place of another student in an examination or undertaking an assessment on behalf of another or prevailing on another to substitute for oneself.
- Obtaining unauthorised information prior to the administration of a test or examination. ● Possessing or distributing a test or examination paper before its administration without the express permission of an appropriate staff member.
- Substitution involves the replacement of legitimate answer booklets during an examination with ones prepared outside the test center.
- Using any unauthorised materials or equipment during an examination such as concealed notes

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