



FINAL YEAR PROJECT REPORT
AUTOMATED EMPLOYEE MONITORING
SYSTEM

(The Proctor)

In fulfillment of the requirement

for degree of

BS (COMPUTER SCIENCE)

By

MURTAZA ABBAS

60018(BSCS)

HAMMAD MUNIR

59847(BSCS)

SUPERVISED

BY


MR. NOMAN KHALID

BAHRIA UNIVERSITY (KARACHI CAMPUS)

FALL 2022


DECLARATION

We here by declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

Signature : 

Name : Hammad Munir

Reg No. : 59847

Signature : 

Name : Mureaza Abbas

Reg No. : 60018

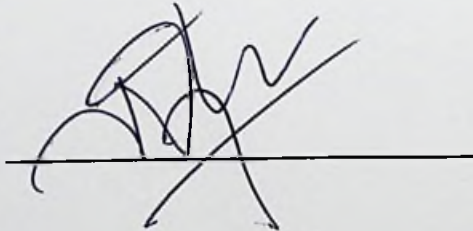
Date : 18/1/23

APPROVAL FOR SUBMISSION

We certify that this project report entitled “**AUTOMATED EMPLOYEE MONITORING SYSTEM (The Proctor)**” was prepared by **HAMMAD MUNIR** and **MURTAZA ABBAS** has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Computer Science at Bahria University.

Approved by,

Signature :



Supervisor : Mr. Noman Khalid

Date :

17/01/23

The copyright of this report belongs to Bahria University as qualified by Intellectual Property Policy of Bahria University BUORICP-15 amended April 2019. Due acknowledgement shall always be made of the use of any material contained in, or derived from, this report.

© 2019 Bahria University all right reserved.

Specially dedicated to
my beloved teacher and mentor Sir Jawad Bhatta
(Hammad Munir)
my beloved teacher and mentor Sir Noman Khalid
(Murtuza Abbass)

ACKNOWLEDGEMENT

We would like to thank everyone who had contributed to the successful completion of this project. We would like to express my gratitude to my research supervisor, Mr. Noman Khalid for his invaluable advice, guidance and his enormous patience throughout the development of the research.

In addition, we would also like to express my gratitude to our loving parents and friends who had helped and given me encouragement.

AUTOMATED EMPLOYEE MONITORING SYSTEM

(Proctor)

ABSTRACT

The goal of the "Automated Employee Monitoring System" is to modernize the current manual system by utilizing computerized equipment and software. This web application can store and access employee data efficiently and prevent redundant entries. The project aims to use facial recognition algorithms to identify and track employees, determining if they are present and working at their desks. The report examines various techniques for facial recognition, including image processing steps such as preprocessing, segmentation, and feature extraction. The software is developed using artificial neural networks, which are particularly useful for feature extraction and detection in character recognition. The system begins by preprocessing the captured image, followed by filtering, segmentation, resizing, and feature extraction. The feedforward process through the network then yields an output matrix, allowing for the identification of the recognized character. The programming language used for the end product of the algorithms is Python."

TABLE OF CONTENTS

DECLARATION	ii
APPROVAL FOR SUBMISSION	iii
ACKNOWLEDGEMENTS	vi
ABSTRACT	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	x
LIST OF FIGURES	xi

CHAPTER

1	INTRODUCTION	1
	1.1 Background	1
	1.2 Problem Statements	1
	1.3 Aims and Objectives	2
	1.4 Scope of Project	2
2	LITERATURE REVIEW	3
	2.1 BambooHR	3
	2.2 Zenifets	3
	2.3 ADP	3
	2.4 Workday	3
	2.5 Gusto	3
	2.6 Namely	4
	2.7 PROCTOR	4

3	DESIGN AND METHODOLOGY -----	5
3.1	Design and Implementation Approach-----	5
3.2	Development Life Cycle of PROCTOR-----	6
3.3	Requirement Specification Gathering-----	6
3.4	Requirement Analysis-----	6
3.5	Program Design -----	7
3.6	Modules -----	7
3.7	Data Flow Diagram-----	11
3.8	UML Diagram -----	12
4	IMPLMENTATION -----	16
4.1	Hardware Requirement-----	16
4.2	Software development Life Cycle Methodologies -----	16
4.3	Languages and Tools -----	18
4.4	Testing-----	25
5	RESULTS AND DISCUSSIONS -----	28
6	CONCLUSION AND RECOMMENDATIONS -----	35
7	REFERENCES-----	36