DECLARATION

I hereby declare that the project titled "AI BASED EXAM PROCTORING				
SYSTEM" is an authentic work carried out by me as a student of G. PULLA REDDY				
ENGINEERING COLLEGE(Autonomous) Kurnool, during 2023-24 and has not been				
submitted elsewhere for the award of any degree or diploma in part or in full to any institute.				
P. GOKULA KISHORE REDDY				
(209X1A05H6)				

ACKNOWLEDGEMENT

I wish to express my deep sense of gratitude to our project guide **Smt. B. Swathi, Assistant Professor** of Computer Science and Engineering Department, G. Pulla Reddy Engineering College, for her immaculate guidance, constant encouragement and cooperation which have made possible to bring out this project work.

I am grateful to our project incharge **Sri. J. Swami Naik**, **Associate Professor** of Computer Science and Engineering Department, G. Pulla Reddy Engineering College, for helping us and giving us the required information needed for our project work.

I am thankful to our Head of the Department **Dr. N. Kasiviswanath**, for his whole hearted support and encouragement during the project sessions.

I am grateful to our respected Principal **Dr. B. Sreenivasa Reddy**, for providing requisite facilities and helping us in providing such a good environment.

I wish to convey my acknowledgements to all the staff members of the Computer Science and Engineering Department for giving the required information needed for our project work.

Finally, I wish to thank all our friends and well wishers who have helped me directly or indirectly during the course of this project work.

ABSTRACT

The "AI-Based Exam Proctoring System" is a cutting-edge project proposed for the Online Examination. This project aims to develop an intelligent and automated system that ensures exam integrity, tracks attendance, and detects fraudulent activities during online exams. The key features of the proposed system include:

- Face Detection for Participant Identification
- Real-Time Attendance Tracking to Excel Sheet
- Fraud Activity Detection
- Post-Exam Analysis

This project aims to create a comprehensive solution that combines facial recognition, attendance tracking, and fraud detection to address the challenges posed by remote online exams. Overall, this project serves as a robust solution to streamline the exam administration process, enhance exam security, and maintain academic integrity. By leveraging cutting-edge technologies, this project presents an innovative approach to conducting exams in a digital age. Its implementation will significantly benefit educational institutions.

CONTENTS

	CHAPTER	PAGE NO
1	INTRODUCTION	1
	1.1 Introduction	2
	1.2 Motivation	2
	1.3 Problem Definition	2
	1.4 Objective of the Project	3
	1.5 Limitations of the Project	3
	1.6 Organization of the Project	4
2	SYSTEM SPECIFICATIONS	5
	2.1 Software Specifications	6
	2.2 Hardware Specifications	6
3	LITERATURE SURVEY	7
	3.1 Introduction	8
	3.2 Existing System	8
	3.3 Disadvantages of Existing System	9
	3.4 Proposed System	11
4	DESIGN	13
	4.1 Data Flow Diagram	14
	4.2 UML Diagrams	15
5	IMPLEMENTATION	20
	5.1 Web Application Initialization	21
	5.2 Video Processing and Fraud Detection	22
	5.3 Data Processing and Database Interaction	23
	5.4 Results Display	23
	5.5 System Enhancements	24
	5.6 Source code	25
	5.7 Testing and Validation	53
	5.8 Testing Methodologies	54
	5.9 Testing Principles	55
8	CONCLUSION AND FUTURE ENHANCEMENTS	58
	REFERENCES	60

LIST OF FIGURES

FIGURE NO	FIGURE NAME	PAGE NO
Fig 4.1	Data Flow Diagram	14
Fig 4.2	Use Case Diagram	16
Fig 4.3	Class Diagram	17
Fig 4.4	Sequence Diagram	18
Fig 4.5	Activity Diagram	19
Fig 7.2	Login Page	56
Fig 7.4	User Authentication	56
Fig 7.8	Face Not Detected During Exam	57
Fig 7.10	Full screen exit detection	57

LIST OF ABBREVIATIONS

1. RAM Random Access Memory

2. IDE Integrated Development Environment

3. UML - Unified Modeling Language

4. DFD - Data Flow Diagram