

KJ'S EDUCATIONAL INSTITUTES

**TRINITY COLLEGE OF ENGINEERING AND RESEARCH PUNE**

(Accredited by NAAC with A+ Grade Approved by AICTE & Affiliated to SPPU, Pune)

Sr. No. 25 & 27, Near. Khadi Machine Chowk, Kondhwa Annexe, Pune-48, Maharashtra, India.

**Department of Computer Engineering**

**Project Details**

**A.Y. 2023-24**

**Semester-I**

Group No	Roll No.	Name of Student	Guide	Title
1	CO4005	BATTUL AUM RAVI	Dr. Geetika Narang	Deep fake audio detection
	CO4028	KANKI ANJALI NAGESH		
	CO4061	SHINDE PRASANNA SHASHIKANT		
	CO4048	PANDEY UJJWAL SUDHAKAR		
2	CO4066	SHINDE TEJAS MAHADEV	Dr. Geetika Narang	Virtual keyboard using eye blinking
	CO4071	TAMBOLKAR SAURABH SHRIKANT		
	CO4033	KUMBHARKAR ROSHAN ANIL		
	CO4019	GAWAS KAUSHAL		
3	CO4057	SHAIKH SANIYA SHAIKHLAL	Dr. Sujeet More	Intrusion detection system using Machine learning
	CO4014	DHAYTONDE KAJAL PANDRANG		
	CO4065	SHINDE SHRIKANT BALAJI		
	CO4007	BHAGWAT PRACHI BABAN		
4	CO4013	DHAVALASKAR ANIKET NANDKUMAR	Dr. Sujeet More	
	CO4011	CHOURASIYA PRADEEP PRABHUDAYAL		



Department of Computer Engineering

	CO4003	ARGADE PRATIKSHA BALASAHEB		IOT based smart grocery store management
	CO4059	SHEWALE SHRUTI SANDEEP		
5	CO4018	GAVALE AAYUSH RAJESH	Ms. Sneha Tirth	Sign language recognition
	CO4024	JAGTAP ADITYA SANJAY		
	CO4026	JAISWAL ADITYA HARESH		
	CO4049	PANSANDE ANUSHKA SANTOSH		
6	CO4008	BHALEKAR VIRAJ SHARAD	Ms. Sneha Tirth	Fraud detection in banking system using Machine learning
	CO4053	SAKPAL PRANALI PRAMOD		
	CO4025	JAGTAP SAURABH ARUN		
	CO4051	RATHOD SHRAMIK BABURAO		
7	CO4035	LADKAT SIDDHANT GANESH	Mr. Prasad Bhosale	Attendance system using geofencing, timing and face recognition
	CO4068	SHIRSATH RUSHIKESH PANDHARINATH		
	CO4058	SHARMA BHAVIKA SANJAY		
	CO4063	SHINDE SAKSHI SANTOSH		
8	CO4040	MALI SUSMITA KASHINATH	Mr. Prasad Bhosale	Emotion driven ambiance and music control
	CO4043	MOHITE ABOLI RAJESH		
	CO4041	MENE PURVA RAVINDRA		



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	CO4001	ABNAVE PRATHAMESH MUKUND		
9	CO4017	GARKAR PRATIK CHANGDEV	Ms. Saleha Saudagar	Suspicious activity detection
	CO4012	DALVI TEJAS RAJENDRA		
	CO4022	INAMDAR TOHID JAINUDDIN		
	CO4069	SHISHUPAL SUYASH ASHOK		
10	CO4054	SARDAR AYAN SUSHANTA	Mr. Vishal Shinde	Personalized e-learning platform using artificial intelligence
	CO4042	MOHAMMED AHSANYAMAAN SHAIKH ZAMEERUDDIN		
	CO4002	APTURE SAHIL LALITKUMAR		
	CO4027	KALKOTI FAIZAN SHAFI AHMED		
11	CO4006	BHAGAT BASANT SHIVDHANI	Ms. Rupali Maske	Surplus food donation application
	CO4074	VERMA AKASH ARVINDKUMAR		
	CO4072	THOPATE OMKAR MOHAN		
	CO4075	WAGH ROHIT EKNATH		
12	CO4031	KESARE LALIT SHAILESH	Ms. Saleha Saudagar	Detecting Phishing website using Machine Learning
	CO4036	LANDGE ADARSH SANDIP		
	CO4060	SHINDE ATHARVA BHARAT		
	CO4076	YADAV SHYAMSUNDAR SHANTANU		



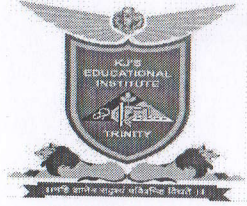
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13	CO4034	KUTWAL ABHISHEK SHIVAJI	Ms. Saleha Saudagar	Decentralized Voting system using Blockchain technology
	CO4064	SHINDE SHIVRAJ PRAMOD		
	CO4067	SHINDE VIRAJ AMOL		
	CO4010	CHIKANE SHARVARI PRASHANT		
	CO4044	MUDHE ROHIT DADA		
14	CO4050	PATEL IMAAD ASIF	Ms. Rutika Shah	Offensive hate speech detection using recurrent neural network
	CO4045	MULEY SWANAND SUNIL		
	CO4032	KHURPE ATHARVA VISHAL		
	CO4056	SHAIKH AMAN NAZIM		
15	CO4023	JADHAV TEJASWINI RAVINDRA	Ms. Rutika Shah	Face mask detection (Protection lives with AI)
	CO4038	MADANE RAMANAND SANDIPAN		
	CO4016	GAIKWAD SANKET KUNDLIK		
	CO4062	SHINDE RUSHIKESH RAMRAO		
16	CO4047	NIKAM PRATIK NANASO	Ms. Amruta Sarudkar	Face detection for lost person criminals using Image processing
	CO4037	MACHANNA DIPAK RAJENDRA		
	CO4004	BALKAWADE SAINATH DATTATRAY		
	CO4039	MAHADIK PATIL SARTHAK SUBHASH		



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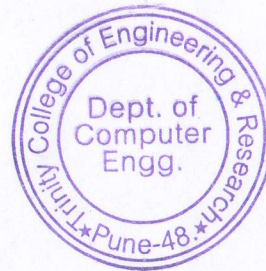
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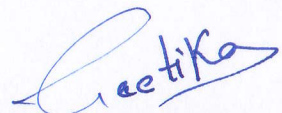
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17	CO4070	SHRIVASTAVA SAURABH KUMAR	Ms. Sai Takawale	Heart Disease Prediction System using Machine Learning
	CO4073	UGALE SANKET JAYRAM		
	CO4020	GITTE AKANKSHA RAMESH		
	CO4030	KASLE BHAGYASHRI VASANT		
18	CO4029	KANSE SUPRIYA SHIVAJIRAO	Mr. Vishal Shinde	Tender Allocation System using Blockchain
	CO4055	SAYYED SABA JAMEEL		
	CO4052	SAGVEKAR SANJANA SANJAY		
	CO4009	BHONDAVE HARSHADA PANDHARINATH		

  
**Dr. Sujeet More**  
Project Coordinator



  
**Dr. Geetika Narang**  
HOD

Head  
Dept. of Computer Engg.  
Trinity College of Engg. & Research  
Pune-411 048.



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AICTE - 1 - 6066612, DTE CODE - EN 6184, UOP - PU/PN ENGG/341/2008

## CERTIFICATE

This is to certify that the seminar report entitled "Face Mask Detection Using Artificial Intelligence" being submitted by **Rushikesh Shinde, Sanket Gaikwad, Tejaswini Jadhav, Ramanand Madane** is a record of bonafide work carried out by him/her under the supervision and guidance of **Mrs. Rutika Shah** in partial fulfillment of the requirement for **BE (Computer Engineering) - 2019 course** of Savitribai Phule Pune University, Pune in the academic year 2023-24.

This Final Project report has been examined by us as per the Savitribai Phule Pune University, Pune, requirements at TCOER on

Date: 19/4/24

Place: Pune

*Rutika*  
19/4/24

Mrs. Rutika Shah  
Project Guide

*S*  
19/4/24

Dr. Sujeet More  
Project Co-ordinator

*Geetika*

Dr. Geetika Narang  
Head of the Department

*Dr. Sujeet More*

(Name & Signature)  
Internal Examiner

*(Signature)*

(Name & Signature)  
External Examiner

## ACKNOWLEDGEMENT

"We have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and staff members. We would like to extend our sincere thanks to all of them. We are highly indebted to Mrs. Rutika Shah for her guidance and constant supervisions well as for providing necessary information regarding the project and also for their support in completing this project report. We would like to express my gratitude towards my parents and staff of COMP. DEPT. Of TCOER, Kondhwa for their kind co-operation and encouragement which helped us incompletion of this project. Our thanks and appreciations also go to our colleagues and teammates in developing the project and people who have willingly helped me out with their abilities."

Rushikesh Shinde (CO4062)

Sanket Gaikwad (CO4016)

Tejaswini Jadhav (CO4023)

Ramanand Madane (CO4038)

## ABSTRACT

The COVID-19 pandemic has quickly interrupted our daily routines, impacting global commerce and air travel. The current recommendation is to shield yourself by using a face mask. Some government-funded organizations may soon need their customers to put on suitable masks to be able to use the products they offer. As a result, detecting face masks has become essential to progressing humanity. The present article offers a straight forward method for achieving this goal with the help of certain essential artificial intelligence technologies, including TensorFlow, Keras, and OpenCV. Using masks has become increasingly important for each person during those shifts. Because of the wide range of individuals that the coronavirus pandemic has spawned, it might be difficult to identify those who lack protective masks. Image processing and deep understanding are used in the method of identifying individual faces or dividing between two categories: those who are wearing masks and those who don't. There are several packages for Python, including Keras and Tensor Flow, as well as OpenCV. The frameworks utilized for the current study are trained using a kind of deep neural network called convolutional neural networks in the field of deep learning.

## CERTIFICATE



This is to certify that the project report entitled

“Face Detection of Lost Person &  
Criminals Using Image Processing”

Submitted by

<b>Balkawade Sainath</b>	<b>(B190654206)</b>
<b>Mahadik Patil Sarthak</b>	<b>(B190654233)</b>
<b>Machanna Dipak</b>	<b>(B190654232)</b>
<b>Nikam Pratik</b>	<b>(B190654240)</b>

Is a bona-fide work carried out by them under the supervision of **Prof. Amruta Sarudkar** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (**Computer Engineering**)


This project report has not been earlier submitted to any other Institute or University for the award of any degree or diploma.

  
Prof. Amruta Sarudkar

Guide Name

  
Dr. Sujeet More

Project Coordinator

  
Dr. Geetika Narang  
HOD

Internal Examiner Name: *Dr. Sujee Man*

Sign: *[Signature]*

External Examiner Name: *S v wadane*

Sign: *[Signature]*

## ACKNOWLEDGEMENT

"We have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and staff members. We would like to extend our sincere thanks to all of them. We are highly indebted to **Mrs. Amruta Sarudkar** for her guidance and constant supervisions well as for providing necessary information regarding the project and also for their support in completing this project report. We would like to express my gratitude towards my parents and staff of COMP. DEPT. Of TCOER, Kondhwa for their kind co-operation and encouragement which helped us in completion of this project. Our thanks and appreciations also go to our colleagues and teammates in developing the project and people who have willingly helped me out with their abilities."

**Sainath Balkawade (CO4004)**

**Pratik Nikam (CO4047)**

**Deepak Machanna (CO4037)**

**Sarthak Mahadik Patil (CO4039)**

## ABSTRACT

The "Face Mask Detection System with Lost Person and Criminals Detection" project represents a multifaceted approach to enhancing public safety and security. It leverages computer vision and artificial intelligence technologies to monitor and enforce the use of face masks in public spaces, especially during the ongoing pandemic. Simultaneously, the system has the capability to identify lost individuals by matching their faces against a database of missing persons and can also recognize potential criminals by comparing facial data with law enforcement databases. This innovative system not only contributes to public health but also assists law enforcement agencies in identifying and apprehending individuals with criminal backgrounds, thereby promoting a safer and more secure environment for communities. By integrating advanced image recognition algorithms and real-time surveillance, this project empowers authorities and businesses to maintain health protocols and swiftly respond to incidents involving missing individuals or suspected criminals. The synergistic combination of face mask detection, lost person identification, and criminal recognition in a single system offers a comprehensive solution for improving public well-being and security.

The "Face Mask Detection System with Lost Person and Criminals Detection" project is a groundbreaking initiative that harnesses the power of cutting-edge technologies such as computer vision and artificial intelligence (AI) to revolutionize public safety measures. In the wake of the COVID-19 pandemic, ensuring widespread compliance with face mask mandates has become paramount in mitigating the spread of the virus. This system addresses this critical need by employing sophisticated image processing techniques in Python to accurately detect the presence or absence of face masks in real-time.

# CERTIFICATE



**TRINITY**

This is to certify that the project report entitled

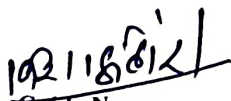
**“Personalized E-Learning Platform Using AI”**


Submitted by


<b>Mr. Faizan Kalkoti</b>	<b>(B190654217)</b>
<b>Mr. Ayan Sardar</b>	<b>(B190654247)</b>
<b>Mr. Sahil Apture</b>	<b>(B190654203)</b>
<b>Mr. Mohammed Ahsan</b>	<b>(B190654236)</b>

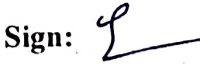
Is a bona-fide work carried out by them under the supervision of **Prof. Vishal Shinde** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (**Computer Engineering**)

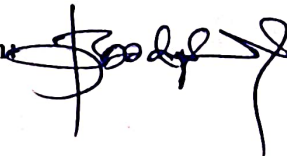
This project report has not been earlier submitted to any other Institute or University for the award of any degree or diploma.

  
Guide Name  
**Prof. Vishal Shinde**

  
Project Coordinator  
**Dr. Sujet More**

  
HOD  
**Dr. Geetika Narang**

Internal Examiner Name: **Dr. Sujet More** Sign: 

External Examiner Name: **P. S. Sakhare** Sign: 

## ACKNOWLEDGEMENT

In my endeavor to achieve the success in completing my project “**Personalized E-Learning Platform Using AI**” in the Final Year Computer Engineering. I take this opportunity to express my deep sense of gratitude to our guide, respected **Prof. Vishal Shinde** for his valuable guidance and kind cooperation throughout the period of work has undertaken which has been instrumental in the success of the seminar.

I am also very thankful to our respected H.O.D, **Dr. Geetika Narang**, for providing me with adequate facilities, ways and means by which I was able to complete this seminar. I express my thankfulness to all teachers and staff of IT department for timely help in course of seminar preparation. Finally, special thanks to my friends, all others who have helped me directly or indirectly for successful completion of this work.

Faizan Kalkoti (B190654217)

Ayan Sardar (B190654247)

Sahil Apture (B190654203)

Mohammed Ahsan (B190654236)

## **ABSTRACT**

Our AI-driven personalized learning system revolutionizes education with adaptive technology. Harnessing AI, data analytics, and natural language processing, it customizes learning experiences for each student. Offering adaptive learning paths, content recommendations, and real-time feedback, it dynamically adjusts to individual progress. The interactive interfaces enable natural language interactions and collaborative learning. Instructors access insights for targeted support, enhancing overall effectiveness. This innovative system empowers personalized education, shaping the future of learning. At its core, the integration of game theory principles such as rewards, competition, cooperation, and progression captivate learners' attention and nurtures their intrinsic motivation to explore, learn, and excel, transforming traditional education into an interactive journey embracing curiosity and achievement.