

**P.D.E.A.'S**  
**COLLEGE OF ENGINEERING**



**C E R T I F I C A T E**

This is to certify that the project titled

**“TACTICAL SAFETY SPYING ROBOT”**

Has been completed by

- 1) Mr. KALBHOR VINAYAK SANTOSH - (B150260820)
- 2) Mr. CHAUDHARI AADESH JIVAN - (B150260806)
- 3) Mr. PATIL ROHAN RAJENDRA - (B150260832)
- 4) Mr. POTDAR DINESH VIJAY - (B150260838)

under my supervision, in the partial fulfillment of Bachelor of Engineering - Mechanical Engineering of **“SAVITRIBAI PHULE PUNE UNIVERSITY”**.

Date: 31.05.2022


Place: Mahjarj Bk. Pune

  
Prof. R. Y. Pawar

**Guide (Internal examiner)**

  
Prof. S. A. Patil

**Head of the Department**

  
**External Examiner**

  
Prof. R. V. Patil

**Principal**

# Pune District Education Association's College of Engineering, Manjari (Bk), Pune



## CERTIFICATE

This is to certify that

Mr. Sumedh Kharat	B150260824
Mr. Kumar Thorat	B150260853
Mr. Shreekrishna Nagargoje	B150260828
Mr. Akshay Kachane	B150260823

Have been successfully completed the project stage-II entitled "SOUND ENERGY IN TO ELETRCIAL ENERGY" under my supervision, in the partial fulfillment of Bachelor of Mechanical Engineering, of Savitribai Phule Pune University, Pune.

Date:

Place: Pune

Guide

Dr. S. A. Patil

Head of Department

Dr. S. A. Patil

Internal Examiner

Principal

DR. R. V. Patil  
Principal

External Examiner

Pune District Education Association's  
College of Engineering, Manjari (Bk), Pune

**Pune District Education Association's  
College of Engineering, Manjari(Bk),Pune**



**CERTIFICATE**

**This is to certify that**

Mr.Chikane Vaibhav Vilas	B150260809
Mr.Shelke Sanket Nandkishor	B150260848
Mr.Bhujbal Nikhil Dattatraya	B150260805
Mr.Jadhav Yogesh Madhukar	B150260818

**Have successfully completed the project successfully entitled "*Design and Fabrication of Bladeless Windmill for Power Generation*" under my supervision, in the partial fulfillment of Bachelor of Engineering- Mechanical Engineering, of Savitribai Phule Pune University.**

**Date:**

**Place:**

**Guide**

**Dr. S.A.PATIL**

**Head of Department**

**Dr. S.A.PATIL**

**External Examiner**

**Principal**

**Dr. R.V.Patil**

**Pune District Education Association's  
College of Engineering, Manjari(Bk)  
Pune - 412307**

**Pune District Education Association's  
College of Engineering, Manjari (Bk), Pune**



**CERTIFICATE**

**This is to certify that**

<b>MR. GITARAM CHAUDHARI</b>	<b>B150260807</b>
<b>MR. AJINKYA PHARATE</b>	<b>B150260837</b>
<b>MR. KRUSHNAKANT SATAV</b>	<b>B150260843</b>
<b>MR. UTTRESHWAR SAWANT</b>	<b>B150260845</b>

**Have successfully completed the project stage-II entitled "INTELLIGENT BRAKING  
SYSYEM" under my supervision, in the partial fulfillment of Bachelor Mechanical  
Engineering, of Savitribai Phule Pune University, Pune.**

**Date:**


**Place:**

  
Guide

**Dr. S. A. Patil**

  
Head of Department  
**Dr. S. A. Patil**

  
Internal Examiner

  
Principal  
**DR. R. V. Patil**

  
External Examiner

Pune District Education Association  
College of Engineering, Manjari (Bk),  
Pune - 412307



**Pune District Education Association's  
College of Engineering, Manjari (Bk), Pune**



**CERTIFICATE**

**This is to certify those**

**Mr. Pramod Tupare**

**B150260855**

**Mr. Hrutik Harale**

**B150260815**

**Mr. Rushikesh Gole**

**B150260813**

**Mr. Sachin Ghuge**

**B150260812**

**Mr. Kiran Sonawane**

**B150260851**

Have successfully completed the project stage-II entitled "Development of Resin Levelling and Settling Mechanism for Additive Manufacturing" under my supervision, in the partial fulfillment of Bachelor Mechanical Engineering, of Savitribai Phule Pune University, Pune.

**Date:** 18/06/2022

**Place:** Pune

**Guide**

**Prof. B. K. Suryatal**

**Head of Department**

**Dr. S. A. Patil**

**Internal Examiner**

**Principal**

**DR. R. V. Patil**

**Principal**

Pune District Education Association's  
College of Engineering Manjari (Bk ),  
Pune - 412307

**External Examiner**

**Pune District Education Association's  
College of Engineering, Manjari (Bk), Pune.**



**CERTIFICATE**


This is to certify that

Mr. Suraj G. Dhere	B150260811
Mr. Roshan R. Patil	B150260833
Mr. Amol V. Nandram	B150260829
Mr. Uday N. Pawar	B150260836

Have successfully completed the project stage-II entitled "*Design and Manufacturing of Automatic Drainage Cleaner Machine*" under my supervision, in the partial fulfillment of Bachelor of Engineering - Mechanical Engineering, of Savitribai Phule Pune University..

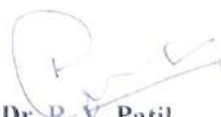
Date:

Place: Pune.

  
Prof. A. V. Dumbre  
Guide

  
Dr. S. A. Patil  
Head of Department

  
Internal Examiner

  
Dr. R. V. Patil  
Principal

  
External Examiner

Pune District Education Association's  
College of Engineering Manjari (Bk ),  
Pune - 412307

**Pune District Education Association's**  
**College of Engineering, Manjari (Bk), Pune**



**CERTIFICATE**

**This is to certify that**

Miss.Mansi.S.Sawant B150260844

Mr.Swapnil.S.Hilal B150260817

Mr. Sanket .N. Gadhave B150260841

Have successfully completed the project stage-II entitled "*Design And Manufacturing Of Crop Cutting Machine*" under my supervision, in the partial fulfilment of Bachelor Mechanical Engineering, of Savitribai Phule Pune University, Pune.

**Date:**

**Place:**


  
**Guide**

**Prof. A. V. DUMBRE**

  
**Head of Department**  
**Dr. S. A. Patil**

  
**Internal Examiner**

  
**External Examiner**

  
**Principal**  
**DR. R. V. Patil**  
Pune District Education Association's  
College of Engineering, Manjari (Bk),  
Pune - 412207



## CERTIFICATE

This is to certify that the project report entitled

### **"ALCOHOL SENSING ALERT WITH IGNITION LOCKING SYSTEM"**

Submitted by ..

HARSH CHAUDHARI  
HEMPUSHPA.  
AKASH PATIL.  
PAPPURAJA PRASAD.

Exam Seat No : B150260808  
Exam Seat No : B150260816  
Exam Seat No : B150260830  
Exam Seat No : B150260839


is a bonafide student of this institute and the work has been carried out by them under the supervision of **Prof. N. A. Kumbhar** 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 (Mechanical Engineering)**.

  
(Prof. N. A. Kumbhar)

Project Guide, Department of  
Mechanical Engineering

  
(Dr. S. A. Patil)

Head of Mechanical Department  
PDEA College of Engineering,  
Manjari

  
( Dr. R. V. Patil )

Principal  
PDEA College of  
Engineering, Manjari

Principal

Pune District Education Association  
College of Engineering Manjari  
Pune - 412307



**Pune District Education Association's  
College of Engineering, Manjari (Bk), Pune**



**CERTIFICATE**

This is to certify that

**Mr. Rupesh Sampat Bhondave**

**B150260803**

**Mr. Prathamesh Shivnath Jadhav**

**B150260819**

**Mr. Mayur Madhukar Patil**

**B150260831**

**Mr. Omkar Rajendra Shinde**

**B150260849**

Have successfully completed the project stage-II entitled "Vehicle Extraction Device" under my supervision, in the partial fulfillment of Bachelor of Mechanical Engineering, of Savitribai Phule Pune University, Pune.

Date:

Place:

**Guide  
Prof. A. D. Gaikwad**

**Head of Department  
Dr. S. A. Patil**

**External Examiner**

**Principal  
DR. R. V. Patil**

Pune District Education Association's  
College of Engineering Manjari (Bk),  
Pune - 412307

**Pune District Education Association's  
College of Engineering, Manjari (Bk), Pune.**



**CERTIFICATE**


This is to certify that the following students


Mr. Vaibhav Solunke	B150260850
Mr. Mahesh Banger	B150260802
Mr. Nilesh Tenagle	B150260852
Mr. Ajay More	B150260827

have successfully completed the stage – II of project entitled “*DEVELOPMENT OF IN-PIPE ROBOT FOR CLEANING AND INSFECTION TASKS*” under my supervision .In the partial fulfillment of Bachelor of Engineering Mechanical engineering ,of

Date:

Place:

  
Prof.S.S.SHIRSATH  
Guide

  
Dr. S. A. PATIL  
Head of Department

  
External Examiner

  
Dr. R.V. PATIL  
Principal

Pune District Education Association's  
College of Engineering (Bk), (38)  
Pune 412307

  
External

P.D.E.A.'S  
COLLEGE OF ENGINEERING.



**CERTIFICATE**

This is to certify that the stage- II of project titled  
"ELECTRO-MAGNETIC BRAKING SYSTEM"

Has successfully completed by:

- 1) Mr. DESHMUKH VAIBHAV DHANAJI -(B150260810)
- 2) Mr. KARMARE VISHAL SUNIL -(B150260822)
- 3) Mr. PATIL SHUBHAM NIMBA. -(B150260834)
- 4) Mr. YADAV ANIKET PANDURANG. -(B150260856)

Under my supervision. In the partial fulfilment of Bachelor of Engineering in  
"Mechanical Engineering" of SAVITRIBAI PHULE PUNE UNIVERSITY.

**Date:**

**Place:**

  
**Prof. Shrisath S. S.**  
Guide

  
**Internal Examiner**

  
**Dr. S. A. Patil**  
Head of Department

  
**Dr. R. V. Patil**  
Principal

  
**External Examiner**

Pune District Education Association's  
College of Engineering, Marol Uda -  
Pune - 412307



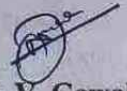
**CERTIFICATE**


This is to certify that the project report entitles  
**"WATER REQUIREMENT FORECASTING SYSTEM"**

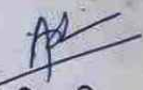
Submitted by


STUDENT NAME	Exam No
OMKAR BOTRE	B150264217
HARSHAL GHAVATE	*B150264225
POOJA HAKE	B150264227
GANESH WAKCHAURE	B150264275

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. N. V. Gawali** 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).

  
**Prof. N. V. Gawali**  
Guide  
Department of Computer Engineering

  
**Prof. A.A. Bamanikar**  
Project Coordinator

  
**Prof. A.A. Bamanikar**  
External Examiner  
Department of Computer Engineering

  
**Dr. R. V. Patil**  
Principal,  
PDEA's College Of Engineering,  
Manjari(Bk.), Pune-412307

Place: Pune

Date: 30/05/2022

PDEA'S COLLEGE OF ENGINEERING MANJARI(BK.),PUNE



बहुजन हिताय, बहुजन सुखाय।



## CERTIFICATE

This is to certify that the project report entitles

**"E-GADGET TO DETECT FOOD FRESHNESS USING IOT AND ML"**

Submitted by

**ARADHANA SHARMA  
ULFAT SHAIKH  
SEJAL BARKADE  
RUTUJA PATURKAR**

**Exam No: B150264266  
Exam No: B150264265  
Exam No: B150264262  
Exam No: B150264250**

is a bonafide student of this institute and the work has been carried out by her under the supervision of **Prof. Dr. M. P. Borawake** 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).

**Prof. Dr. M. P. Borawake**  
Guide  
Department of Computer Engineering

**Prof. S. V. Shinde**  
External Examiner  
Department of Computer Engineering

**Prof. A. A. Bamanikar**  
Project Coordinator

**Dr. R. V. Patil**  
Principal  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune

Date: 30/05/2022





## CERTIFICATE

This is to certify that the project report entitles  
**"AN INTERACTIVE WEB BASED GAME"**

Submitted by


AYUSH BHAT  
AJIT TARADE  
DEVASHISH BAKRE  
HRISHIKESH CHAVAN

Exam Seat No: B150264210  
Exam Seat No: B150264202  
Exam Seat No: B150264211  
Exam Seat No: B150264219

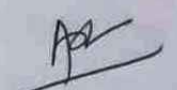
is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. N.V. Gawali** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University, for the award of the degree of **Bachelor of Engineering** (Computer Engineering).

  
**Prof. N.V. Gawali**  
Guide

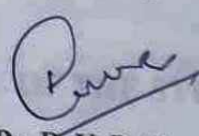
Department of Computer Engineering

  
**Prof. A.A. Bamanikar**  
Project Coordinator

Department of Computer Engineering

  
**Prof. A.A. Bamanikar**  
External Examiner

Department of Computer Engineering

  
**Dr. R. V. Patil**  
Principal,

PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune  
Date:

PDEA's COEM, Department of Computer Engineering 2021-22

SAVITRIBAI PHULE PUNE UNIVERSITY

2021-22



CERTIFICATE

This is to certify that the project report entitles

**"COLLEGE MANAGEMENT WEB APPLICATION SYSTEM USING MEAN STACK "**

Submitted by

SAKSHI NAIKWADI

Exam Seat No: 71908377L

KETAKI SONONE

Exam Seat No: 71908400J


MAYURESH KOLI

Exam Seat No: 71815825D

HARSHAL SONAWANE


Exam Seat No: 71815885H

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. S. V . SHINDE SIR** 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)**.

  
(Prof. S.V. Shinde sir )

Project Guide

Department of Computer Engineering

  
(Prof. A.A Bamanikar)

Project Coordinator

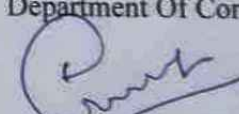
Department Of Computer Engg.

Manjari BK

  
Prof.....

External Examiner

Department Of Computer Engg.

  
(Dr. R.V . Patil)

Principal,

PDEA's College Of Engg.

Pune-412307

Place: Pune

Date:

PDEA's COEM, Department of Computer Engineering 2021-22



[P-2]



## CERTIFICATE


This is to certify that the project report entitles

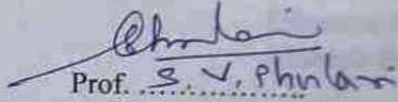
**"ONLINE CHILD PREDATOR DETECTION USING ML"**


Submitted by

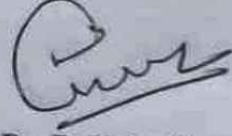
Utkarsha Bhadre  
Mahesh Bangar  
Tabbasum Shaikh  
Sarika Waghmode

This is a bonafide student of this institute and the work has been carried out by her under the supervision of **Prof. S. P. Gade** 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).

  
**Prof. S. P. Gade**  
Guide  
Department of Computer Engineering

  
Prof. **S. V. Phulkari**  
**External Examiner**  
Department of Computer Engineering

  
**Prof. A. A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

  
**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune  
Date:

2021 -2022

बहुजन हिताय, बहुजन सुखाय।



### CERTIFICATE


This is to certify that the project report entitles

**Human Activity Recognition Using Machine Learning**


Submitted by

**Karan Khoje  
Shubham Lokare  
Tushar Gadekar**

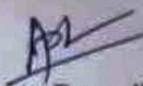
is a Bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. S. P. Gade** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University, for the award of the degree of **Bachelor of Engineering (Computer Engineering)**.


  
**Prof. S. P. Gade**  
Guide

Department of Computer Engineering

  
**Prof. S. V. Phule**  
External Examiner

Department of Computer Engineering

  
**Prof. A. A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

  
**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune

Date: 30/5/2022



2021 -2022

बहुजन हिताय, बहुजन सुखाय।



## CERTIFICATE

This is to certify that the project report entitles

**Data Security of Dynamic and Robust Role Based Access Control from  
Multiple Authorities in Cloud Environment**

Submitted by

Vikas Nagrale  
Mayur Yalij  
Ashutosh Kumar

is a Bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. Dr. R. V. Patil** and it is approved for the partial fulfillment of there quirement of Savitribai Phule Pune University, for the award of the degree of **Bachelor of Engineering** (Computer Engineering).

**Prof. S. V. Shinde**  
Guide  
Department of Computer Engineering

**Prof. M. C. Hingane**.....  
**External Examiner**  
Department of Computer Engineering

**Prof. A. A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place:

Date:





## CERTIFICATE

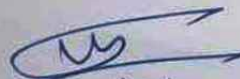
This is to certify that the project report entitles

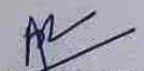
### DIGITAL CERTIFICATE SYSTEM FOR VERIFICATION OF EDUCATIONAL CERTIFICATES USING BLOCKCHAIN


Submitted by

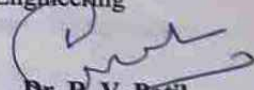
1. SANGRAM RANANAWARE	B150264254
2. KETAN MORE	B150264244
3. NAJIM ATTAR	B150264207
4. KAJAL KUMARI	B150264233

this a Bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. Dr. M. P. Borawake** 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).

  
**Prof. M. P. Borawake**  
Guide  
Department of Computer Engineering

  
**Prof. A. A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

  
**Prof. S. V. Phinde**  
External Examiner  
Department of Computer Engineering

  
**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering, Manjari (Bk.),  
Pune-307

Place:

Date:

2021 -2022

समृद्धिजन विद्याया, समृद्धिजन सुखाय।



**CERTIFICATE**

This is to certify that the project report entitles

**"SMART E-HEALTH SYSTEM: Machine learning based e-health system using for diseases prediction"**

Submitted by  
Vishal Awate  
Nisha Bankar  
Monika Biradar  
Ankush Gadge

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. S.V. 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).

**Prof. S.V. Shinde**  
Guide  
Department of Computer Engineering

**Prof.**  
**External Examiner**  
Department of Computer Engineering

**Prof. A.A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place : PDEA's COEM

Date : 30/05/2022



2021 -2022

बहुजन हिताय, बहुजन सुखाय ।



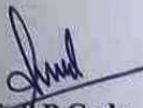
### CERTIFICATE

This is to certify that the project report entitles

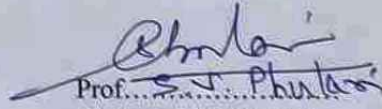
### Driver Drowsiness Detection Using Machine Learning


Submitted by  
**KAMBLEKSHITIJA**  
**SAKSHIPATIL**  
**SHETHAISHWARYA**  
**POTDARSIDDHI**


This a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. Swati Gade** 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)**.

  
**Prof. S.P. Gade**  
Guide

Department of Computer Engineering

  
Prof. S.V. Phutane  
**External Examiner**  
Department of Computer Engineering

  
**Prof. A.A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

  
**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune  
Date: 30/5/2022

2021 -2022

सहजं ज्ञानं स्यात्, सहजं च यत्नः ।



### CERTIFICATE


This is to certify that the project report entitles

ERP Application For Education Institute

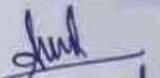
Submitted by

Ravisha Bansode  
Samruddhi Javalkar  
Usha Guvala  
Mansi Shivarkar

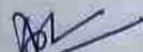
is a Bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. Dr. R.V Patil** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University, for the award of the degree of **Bachelor of Engineering (Computer Engineering)**.

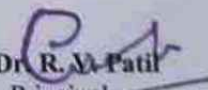
  
**Prof. S.V. Phulari**  
Project Guide

Department of Computer Engineering

  
**Prof. S.P. Gade**  
External Examiner

Department of Computer Engineering

  
**Prof. A.A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

  
**Dr. R.V. Patil**  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune

Date: 28/05/2022





## CERTIFICATE

This is to certify that the project report entitles

### ACADEMIA: WEB PLATFORM FOR E-LEARNING

Submitted by

1. Abhishek Lavale
2. Prajwal Gadekar
3. Kishor Naykodi
4. Abhishek Raut

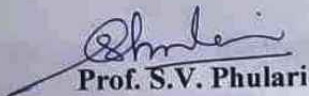
Exam Seat no.: **B150264201**

Exam Seat no.: **B150264221**

Exam Seat no.: **B150264248**

Exam Seat no.: **B150264255**

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. S.V. Phulari** 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).

  
**Prof. S.V. Phulari**

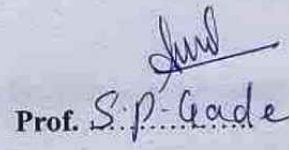
Guide

Department of Computer Engineering

  
**Prof. A.A. Bamanikar**

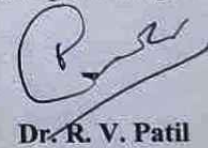
Project Co-ordinator

Department of Computer Engineering

  
**Prof. S.P. Gade**

External Examiner

Department of Computer Engineering

  
**Dr. R. V. Patil**

Principal,

PDEA's College of Engineering,

Manjari (Bk.), Pune - 412307

Place: Pune

Date: 30/05/2022





## CERTIFICATE

This is to certify that the Project Entitled

### Online VetMeds

Submitted by

Shaikh Abuosama  
Attar Faiz  
Desale Vaibhav

is a bonafide work carried out by students under the supervision of Prof. \*\*\*\*\*  
and it is submitted towards the partial fulfillment of the requirement of Bachelor  
of Engineering (Computer Engineering).

Prof. N.V. Gawali  
Internal Guide  
Dept. of Computer Engg.

Prof. ....  
External Examiner  
Dept. of Computer Engg.

Prof. A. A. Bamanikar  
Project Co-ordinator  
Dept. of Computer Engg.

Dr. R. V. Patil  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune

Date 30/05/2022



## CERTIFICATE

This is to certify that the project report entitles

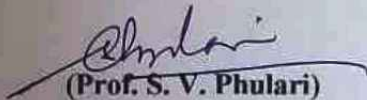
### **“Face Detection”**

Submitted by

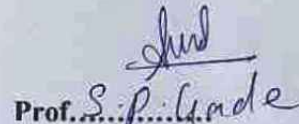
SAIE S. VADKE  
NATASHA A. JANGALE  
PALLAVI B. SABALE

Seat No: B120264272  
Seat No: B120264230  
Seat No: B120264258

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. S. V. Phulari** 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).



(Prof. S. V. Phulari)  
Project Guide  
Department of Computer Engineering



Prof. S. P. Gade  
External Examiner  
Department Of Computer Engineering



(Prof. A. A. Bamanikar)  
Project Co-ordinator  
Department of Computer Engineering



(Dr. R. V. Patil)  
Principal,  
PDEA's College of Engineering  
Manjari (Bk)  
Pune-412307

Place: Pune

Date: 30/05/2022

[P-2]



**CERTIFICATE**

This is to certify that the project report entitles

**"MULTI-IMAGES STEGANOGRAPHY USING DEEP NEURAL NETWORK"**

Submitted by

STUDENT NAME

Exam No:

1. TRUPTI SHAHAJI CHANDANSHIVE

B150264218

2. GAYATRI ULHAS KADAM

B150264232

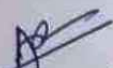
3. KAJAL VILAS SHINDE

B150264268


4. PURVA IGNATHI JADHAV

B150264228

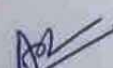
is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. A. A. Bamanikar** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University, for the award of the degree of **Bachelor of Engineering** (Computer Engineering).

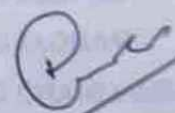
  
**Prof. A. A. Bamanikar**  
Guide

Department of Computer Engineering

  
**Prof. N. V. Gawali**  
External Examiner

Department of Computer Engineering

  
**Prof. A. A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering

  
**Dr. R. V. Patil**  
Principal,  
PDEA's College of  
Engineering,  
Manjari (Bk.), Pune - 307

Place: Pune

Date: 30/5/2022





### CERTIFICATE

This is to certify that the project report entitles

**“BRAIN MACHINE INTERFACE / AUDIO SIGNAL PROCESSING”**

Submitted by

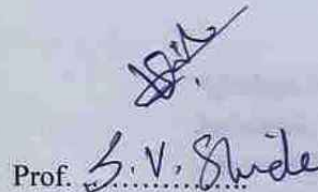
**AJINKYA SASNE  
ASHUTOSH BANAIT  
APURVA RAUT  
VISHAL RAUT**

**Exam No: B150264261  
Exam No: B150264204  
Exam No: B150264256  
Exam No: F150264257**

is a bonafide student of this institute and the work has been carried out by her under the supervision of **Prof. Dr. M. P. Borawake** 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).



**Prof. Dr. M. P. Borawake**  
Guide  
Department of Computer Engineering



**Prof. S. V. Shinde**  
External Examiner  
Department of Computer Engineering



**Prof. A.A. Bamanikar**  
Project Co-ordinator  
Department of Computer Engineering



**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering,  
Manjari (Bk.), Pune – 307

Place: Pune  
Date:

# WATER LEVEL MONITORING SYSTEM



## CERTIFICATE

This is to certify that the project report entitles  
"WATER LEVEL MONITORING SYSTEM"

Submitted by

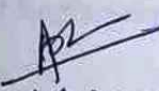
STUDENT NAME


EXAM SEAT NO.


KALE SWAPNIL  
PATIL SHIVANI  
PAWAR VIKRANT  
VHANKADE RAJESH

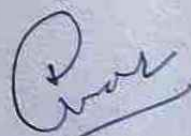
B15026434  
B150264249  
B150264251  
B150264273

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. A. A. Bamanikar** 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).

  
Prof. A.A. Bamanikar  
Guide  
Department of Computer  
Engineering

  
Prof. N.D. Sonawane  
External Examiner  
Department of Computer  
Engineering

  
Prof. A.A. Bamanikar  
Project Co-ordinator

  
Dr. R. V. Patil  
Principal,

Department of Computer Engineering PDEA's College of Engineering,  
Manjari (Bk.), Pune - 412307

Place : Pune  
Date: 30/05/2022





## CERTIFICATE

This is to certify that the project report entitles

**"CHAT BOT SONG RECOMMENDATION SYSTEM"**

Submitted by

Mansi Borawake  
Ankita Khandhalkar  
Shivam Sakore  
Pratik Jagdale


Exam No: B150264216  
Exam No: B150264238  
Exam No: B150264259  
Exam No: B150264229

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of **Dr. R.V.Patil** 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).

  
**Dr. R.V. Patil**  
Guide

Department of Computer Engineering

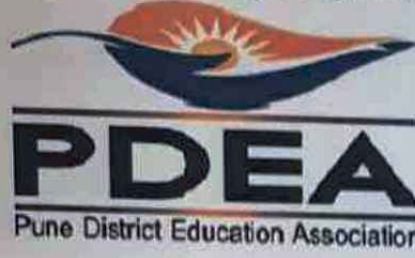
  
**Dr. R.V. Patil**  
Principal

  
**Prof. A.A. Bamanikar**  
Project Coordinator

  
**Prof. N.Y. Gawali**  
External Examiner

**Dr. R. V. Patil**  
Principal,  
PDEA's College of Engineering Manjari (Bk.), Pune - 307  
Place: Pune  
Date: 30/05/2022

बहुजन हिताय, बहुजन सुखाय।



## CERTIFICATE

This is to certify that the project report entitled  
“ COLLEGE WEBSITE USING MERN STACK ”

Submitted by ,

AMBI DEVYANI.  
GENTYAL VAISHALI.  
KANPURNE GAURI.  
MUDALIAR VAISHANVI.

Exam Seat No : B150264203.  
Exam Seat No : B150264224.  
Exam Seat No : B150264237.  
Exam Seat No : B150264245.

is a bonafide student of this institute and the work has been carried out by him/her under the supervision of  
**Dr. R. V. Patil** 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)**.

( **Dr. R. V. Patil** )  
Project Guide.  
Department of Computer  
Engineering

( **Dr. R. V. Patil** )  
Principal,  
PDEA's College of  
Engineering.  
Pune – 412307.

Place: Pune

Date :



## CERTIFICATE


This is to certify that the project report entitles

### FARMERS AGRICULTURAL PORTAL

Submitted by


Harshal Awate	PRN no:71908326F
Jay Katre	PRN no:71908359B
Hritik Rasal	PRN no:71908389D
Akshaya Mahadik	PRN no:71908371M

is a Bonafide student of this institute and the work has been carried out by him/her under the supervision of **Prof. Dr. R.V Patil** 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)**.

  
**Prof. A.A. Bamanikar**

Guide

Department of Computer Engineering

  
**Prof. N.V. Gawali**

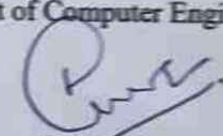
External Examiner

Department of Computer Engineering

  
**Prof. A.A. Bamanikar**

Project Co-ordinator

Department of Computer Engineering

  
**Dr. R. V. Patil**

Principal,

PDEA's College of, Engineering  
Manjari (Bk.), Pune

Place: Pune

Date: 30/05/2022



**A PROJECT REPORT**  
**On**  
**"EV CHARGING STATION WITH COIN BASED PAYMENT**  
**SYSTEM WITH SOLAR POWER"**

SUBMITTED TO THE



**SAVTRIBAI PHULE PUNE UNIVERSITY**

In partial fulfillment for the award of the Degree of

**"Bachelor of Engineering"**

in

**Electronic and Telecommunication**

Submitted By

**YOGESH BABAN TAWARE**

**NITESH BHARAT KALE**

**NEHA RAMESH JADHAV**

**UTTAM BALIRAM CHAUHAN**

Under the guidance of

**Prof. R. M. SAHU**



**Department of Electronic and Telecommunication**

**PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-22**



## CERTIFICATE

This is to certify that the project report entitled "EV Charging Station with Coin Based Payment System with solar power" being submitted by

**YOGESH BABAN TAWARE**  
**NITESH BHARAT KALE**  
**NEHA RAMESH JADHAV**  
**UTTAM BALIRAM CHAHUHAN**

**B150263004**  
**B150263003**  
**B150263002**  
**B150263001**

is a record of bonafide work carried out by them under the supervision and guidance of **Prof. R. M. SAHU** in partial fulfillment of the requirement for **BE (Electronic and Telecommunication)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Date: 30/05/2022

Place: Manjari (Bk.), Pune

  
**Prof. R. M. Sahu**  
Guide

  
**Dr. R. V. Patil**  
Principal

Pune District Education Association's  
College of Engineering, Manjari (Bk.), Pune - 412 307

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on . . .

  
Internal Examiner

External Examiner

# **A PROJECT REPORT**

On

## **“Developing Reliable Service System for Charity Donation”**

SUBMITTED TO THE



SAVITRIBAI PHULE PUNE UNIVERSITY

IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF

## **“BACHELOR OF ENGINEERING”**

in

**INFORMATION TECHNOLOGY**

by

SWAPNALI SALUNKHE  
VISHAKHA MODI  
SAKSHI PAWAR

72012654B  
71908374F  
71908384C

Under the guidance of

**Prof. R. M. KAWALE**



Department of Information Technology

PDEA's College of Engineering, Manjari (Bk.)

Pune - 412307.

**2021-2022**





## CERTIFICATE

This is to certify that the project entitled **“Developing Reliable Service System of Charity Donation”** being submitted by

**SWAPNALI D SALUNKHE**

**72012654B**

**VISHAKHA MODI**

**71908374F**

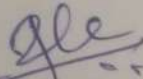
**SAKSHI PAWAR**

**71908384C**


Is a record of bonafide work carried out by them under the supervision of **Prof. R. M. Kawale** 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 (Information Technology)

Date: 30/05/2022

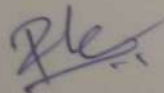
Place: Manjari (Bk.), Pune

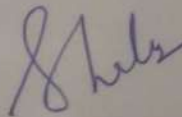
  
**Prof. R. M. Kawale**  
Guide

**Prof. N. R. Jain**  
Head of the Department

  
**Dr. R. V. Patil**  
Principal

This Project Report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari(BK), Pune-412 307 on.....

  
Internal Examiner

  
External Examiner

# **A Project Report**

ON

## **"Phishing Websites Detection Using Deep Learning framework"**

SUBMITTED TO THE



SAVTRIBAI PHULE PUNE UNIVERSITY

In partial fulfillment for the award of the Degree of

### **"Bachelor of Engineering"**

in

Information Technology

Submitted By

**RUTUJA RAMESH MASHERE**

**B150268515**

**AMITA DHANANJAY CHORGHE**

**B150268507**

**VAISHNAVI PRADEEP NARKHEDE**

**B150268518**

**SAURAV VIJAY SONAWANE**

**B150268528**

Under The Guidance of

**Prof. A.B.Gadewar**



**Department of Information Technology**  
**PDEA's College of Engineering, Manjari (Bk.)**



### CERTIFICATE

This is to certify that the project report entitles "**Phishing Websites Detection Using Deep Learning framework**" being Submitted by

<b>RUTUJA RAMESH MASHERE</b>	<b>B150268515</b>
<b>AMITA DHANANJAY CHORGHE</b>	<b>B150268507</b>
<b>VAISHNAVI PRADEEP NARKHEDE</b>	<b>B150268518</b>
<b>SAURAV VIJAY SONAWANE</b>	<b>B150268528</b>

is a record of bonafide work carried out by them under the supervision and guidance of **Prof. A.B.Gadewar** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Place:-**30/05/2022**

Time:- Manjari (Bk.), Pune

**Prof. A.B.Gadewar**  
Guide

**Dr. R. V. Patil**  
Principal

This Project report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on . . . . .

Internal Examiner

External Examiner



**A Project Report**  
on  
**“HANDWRITTEN DIGITS RECOGNITION USING  
MACHINE LEARNING”**

Submitted to the



**Savitribai Phule Pune University**

In partial fulfilment for the award of the Degree of

**Bachelor of Engineering**

in

**Information Technology**

By

**Tarun Dubey** EXAM NO.B150268531

**Anurag K Singh** EXAM NO.B150268501

**Shubham Patil** EXAM NO.B150268521

Under the guidance of

**Prof. N.R. Jain**

(Prof. N. R. Jain)

Guide

Department of Information  
Technology



(Dr. R. V. Patil)

Principal

PDEA's College of Engineering,  
Manjari (Bk.) Pune

**Department of Information Technology**

**PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-2022**



## CERTIFICATE

This is to certify that project entitled **"HANDWRITTEN DIGITS RECOGNITION USING MACHINE LEARNING"**

Being submitted by

**Tarun Dubey**

**EXAM NO.B150268531**

**Shubham Patil**

**EXAM NO.B150268521**

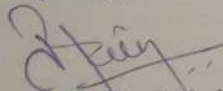
**Anurag K Singh**

**EXAM NO.B150268501**

Group: A is a record of bonafide work carried out by him/her under the supervision and guidance of in Prof. N. R. Jain partial fulfilment of the requirement for Bachelor of Engineering (Information Technology)-2015 Course of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Date: 30 / 05 /2022

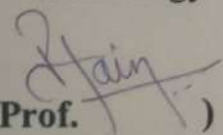
Place: Manjari (Bk.), Pune

  
(Prof. N. R. Jain)

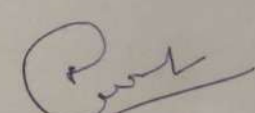
Guide,

Department of Information

Technology

  
(Prof. )

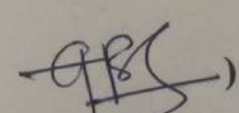
Internal Examiner

  
(Dr. R. V. Patil)

Principal

PDEA's Collage of Engineering,

Manjari (Bk.) Pune

(Prof. )

External Examiner

# **A PROJECT REPORT**

**on**

## **“FACE RECOGNITION FOR ATTENDANCE SYSTEM USING DEEP LEARNING AND NEURAL NETWORK”**

**SUBMITTED TO THE**



**SAVTRIBAI PHULE PUNE UNIVERSITY**

**In partial fulfillment for the award of the Degree of**

**“Bachelor of Engineering”**

**in**

**Information Technology**

**Submitted By**

**ABHIJEET BALU THOMBARE**

**B150268532**

**ABHISHEK AJAY DIWATE**

**B150268509**

**PRAMOD DAULAT BORHADE**

**B150268504**

**NISHANT SURESH DESHMUKH**

**B150268519**

**Under the guidance of**

**Prof. R. M. Kawale**



**Department of Information Technology**

**PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-22**





### CERTIFICATE


This is to certify that the project report entitled "**Face Recognition for Attendance System using Deep Learning and Neural Network**" being submitted by

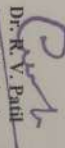
ABHJEET BALU THOMBARE	B150268532
ABHISHEK AJAY DIVATE	B150268509
PRAMOD DAULAT BORHADE	B150268504
NISHANT SURESH DESHMUKH	B150268519

is a record of bonafide work carried out by them under the supervision and guidance of **Prof. R. M. Kawale** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

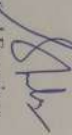
Date: 30/05/2022


Place: Manjari (Bk.), Pune

  
Prof. R. M. Kawale  
Guide

  
Dr. R. V. Patil  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on . 30/5/2022

  
Internal Examiner

  
External Examiner

**A PROJECT REPORT ON**  
**Designing Disease Prediction Models Using**  
**Machine Learning Approach**

**SUBMITTED TO THE**



**SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE**  
**IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE**  
**OF**

**BACHELOR OF ENGINEERING**

**IN**

**INFORMATION TECHNOLOGY**

**SUBMITTED BY,**

**1.Name: Vaishnavi Patole**

**Exam No: B150268535**

**2.Name: Harshal Chaudhari**

**Exam No: B150268505**

**3.Name: Lalit Jadhav**

**Exam No: B150268510**

**UNDER THE GUIDANCE OF**

**Prof. N. R. Jain**



**Department Of Information Technology**

**PDEA's College of Engineering, Manjari (Bk.)**

**Pune- 412307**

**2021-22**

## CERTIFICATE

This is to certify that the project report entitled

**Designing Disease Prediction Models Using Machine Learning Approach**

**SUBMITTED BY,**

**1.Name: Vaishnavi Patole**

**Exam No: B150268535**

**2.Name: Harshal Chaudhari**

**Exam No: B150268505**

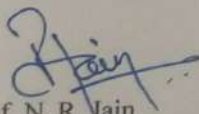
**3.Name: Lalit Jadhav**

**Exam No: B150268510**

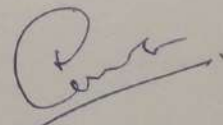
is a record of bonafide work carried out by them under the supervision of Prof. Shalu Saraswat and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (Information Technology)

**Date:**

**Place: Manjari (Bk.), Pune**

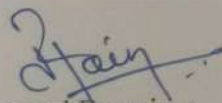
  
Prof. N. R. Jain

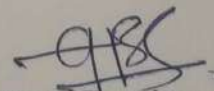
Guide

  
Dr. R. V. Patil

Principal

---

  
Internal Examiner

  
External Examiner



**A PROJECT REPORT**  
**on**  
**“GRAPE LEAF DISEASE DETECTION USING DEEP**  
**LEARNING”**

SUBMITTED TO THE



**SAVTRIBAI PHULE PUNE UNIVERSITY**

In partial fulfillment for the award of the Degree of

**“Bachelor of Engineering”**

in

Information Technology

Submitted By

**SHUBHAM SHRIRAM CHAUDHARI**

**B150268506**

**SHWETA JAYSHING SHINARE**

**B150268529**

**NAMRATA DHANANJAY LOKHANDE**

**B150268514**

**PALLAVI AASARAM MOGARE**

**B150268517**

Under the guidance of

**Prof. Dr.D.S. Hirolikar**



**Department of Information Technology**  
**PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-22**



This is to certify that the project report entitled **“Grape Leaf Disease Detection Using Deep Learning”** being submitted by

**SHUBHAM SHRIRAM CHAUDHARI**

**B150268506**

**SHWETA JAYSHING SHINARE**

**B150268529**

**NAMRATA DHANANJAY LOKHANDE**

**B150268514**

**PALLAVI AASARAM MOGARE**

**B150268517**

is a record of bonafide work carried out by them under the supervision and guidance of **Prof.Dr.D.S.Hirolikar** in partial fulfillment of the requirement for **BE (Information Technology) - 2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Date:30/05/2022

Place: Manjari (Bk.), Pune

**Prof. Dr.D.S. Hirolikar**  
Guide

**Dr. B.V. Patil**  
principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on 30/5/22

**Internal Examiner**

**External Examiner**

# **A PROJECT REPORT**

on

## **“A Road Accident Prediction Model using Data Mining Techniques”**

SUBMITTED TO THE



**SAVTRIBAI PHULE PUNE UNIVERSITY**

In partial fulfillment for the award of the Degree of

**“Bachelor of Engineering”**

in

**Information Technology**

Submitted By

**ANUJA PRASHANT KASABE  
DIPTI SUNIL SOLANKAR  
KOMAL BHAUSAHEB PAWAR**

**B150268512  
B150268530  
B150268522**

Under the guidance of

**Prof. S. Saraswat**



**Department of Information Technology**

**PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-22**





### CERTIFICATE

This is to certify that the project report entitled "A Road Accident Prediction Model Using Data Mining Techniques" being submitted by

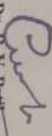
ANUJA PRASHANT KASABE  
DIPITI SUNIL SOLANKAR  
KOMAL BHAUSAHEB PAWAR

B150268512  
B150268530  
B150268522

is a record of bonafide work carried out by them under the supervision and guidance of  
**Prof. S. Saraswat** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.


Date: 30/05/2022  
Place: Manjari (BK.), Pune

  
**Prof. S. Saraswat**  
Guide

  
**Dr. R. V. Pant**  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (BK.), Pune - 412 307 on 30/05/2022.

  
Internal Examiner

  
External Examiner

**A PROJECT REPORT**  
**On**  
**“PUZZLE BASED CAPTCHA FOR AUTHENTICATION OF**  
**WEBCCHAT APPLICATION”**

SUBMITTED TO THE



SAVITRIBAI PHULE PUNE UNIVERSITY

In partial fulfillment for the award of the Degree of

**“Bachelor of Engineering”**

In

Information Technology

By

**ADITYA BHOSALE**  
**NIKHIL KURUP**  
**FAHIM SANDE**

**B150268503**  
**B150268513**  
**B150268526**

Under the guidance of

**Prof. A. B. GADEWAR**



Department of Information Technology

PDEA's College of Engineering, Manjari (Bk.)

Pune - 412307

2021-22



## CERTIFICATE

This is to certify that the project report entitled "**Puzzle based CAPTCHA for authentication of WebChat application**" being submitted by

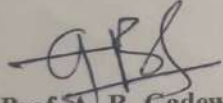
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**NIKHIL KURUP**  
**FAHIM SANDE**

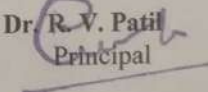
**B150268503**  
**B150268513**  
**B150268526**

Is a record of bonafide work carried out by him under the supervision and guidance of **Prof. A.B. Gadewar** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

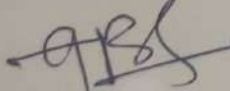
Date: **30/05/2022**

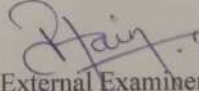
Place: Manjari (Bk.), Pune

  
**Prof. A.B. Gadewar**  
Guide

  
**Dr. R.V. Patil**  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on . . . . .

  
Internal Examiner

  
External Examiner



# **A PROJECT REPORT**

**On**

## **INTELLIGENT MOVIE RECOMMENDATION SYSTEM USING AI AND ML**

**SUBMITTED TO THE**



**SAVITRIBAI PHULE PUNE UNIVERSITY**

**IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF**

**BACHELOR OF ENGINEERING**

**in**

**INFORMATION TECHNOLOGY**

**by**

<b>AJINKYA SATUSE</b>	<b>(71908321E)</b>
<b>OMKAR BHALERAO</b>	<b>(72012653D)</b>
<b>PAVAN PAWAR</b>	<b>(72001665H)</b>
<b>HRITHIK THORAT</b>	<b>(72001668B)</b>

**Under the guidance of**

**Prof. Dr. D. S. Hirolikar**



**Department of Information Technology  
PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-2022**



### CERTIFICATE

This is to certify that the project entitled "**Intelligent Movie Recommendation System Using AI and ML**" being submitted by:

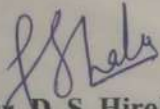
**Ajinkya Satuse**  
**Omkar Bhalerao**  
**Pavan Pawar**  
**Hrithik Thorat**

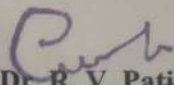
**71908321E**  
**72012653D**  
**72001665H**  
**72001668B**

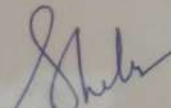
is a record of bonafide work carried out by them under the supervision of **Prof. Dr. D. S. Hirolikar** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (Information Technology)-2015 Course of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

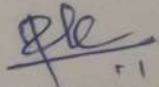
Date: 30/05/2022

Place: Manjari (Bk.), Pune

  
**Prof. Dr. D. S. Hirolikar**  
Guide

  
**Dr. R. V. Patil**  
Principal

  
Internal Examiner

  
External Examiner

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

**A PROJECT REPORT**  
**on**  
**“SMART HEALTH CARD USING CONVOLUTIONAL**  
**NEURAL NETWORK”**

SUBMITTED TO THE



**SAVTRIBAI PHULE PUNE UNIVERSITY**

In partial fulfillment for the award of the Degree of

**BACHELOR OF ENGINEERING**

in

**INFORMATION TECHNOLOGY**

by

**Sourav Hanumant Jagtap**  
**Pankaj Deepakrao Padole**  
**Prajwal Vijay Dange**

**B150268511**  
**B150268520**  
**B150268508**

Under the guidance of

**Prof. Shalu Saraswat**



Department of Information Technology

PDEA's College of Engineering, Manjari (Bk.)

Pune - 412307.

**2021-22**





## CERTIFICATE

This is to certify that the project report entitled "Smart Health Card Using Convolutional Neural Network" being submitted by

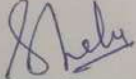
**Sourav Hanumant Jagtap**  
**Pankaj Deepakrao Padole**  
**Prajwal Vijay Dange**

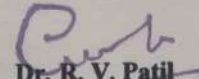
**B150268511**  
**B150268520**  
**B150268508**

is a record of bonafide work carried out by him under the supervision and guidance of **Prof. Shalu Saraswat** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Date:30/05/2022

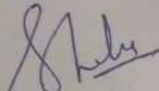
Place:Manjari (Bk.), Pune

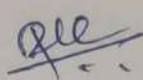
  
**Prof. Shalu Saraswat**  
Guide

  
**Dr. R. V. Patil**  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on 30/05/2022

...

  
Internal Examiner

  
External Examiner

# **A PROJECT REPORT**

On

## **“Developing Reliable Service System for Charity Donation”**

SUBMITTED TO THE



**SAVITRIBAI PHULE PUNE UNIVERSITY**

IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF

**“BACHELOR OF ENGINEERING”**

in

**INFORMATION TECHNOLOGY**

by

**SWAPNALI SALUNKHE  
VISHAKHA MODI  
SAKSHI PAWAR**

**72012654B  
71908374F  
71908384C**

Under the guidance of

**Prof. R. M. KAWALE**



Department of Information Technology

**PDEA's College of Engineering, Manjari (Bk.)**

Pune - 412307.

**2021-2022**



## CERTIFICATE

This is to certify that the project entitled "**Developing Reliable Service System of Charity Donation**" being submitted by

**SWAPNALI D SALUNKHE**

**72012654B**

**VISHAKHA MODI**

**71908374F**

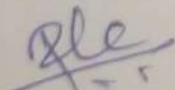
**SAKSHI PAWAR**

**71908384C**

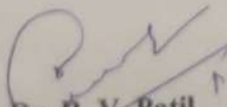
Is a record of bonafide work carried out by them under the supervision of **Prof. R. M. Kawale** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (Information Technology)

Date: 30/05/2022

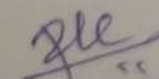
Place: Manjari (Bk.), Pune

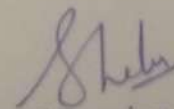
  
**Prof. R. M. Kawale**  
Guide

**Prof. N. R. Jain**  
Head of the Department

  
**Dr. R. V. Patil**  
Principal

This Project Report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari(BK), Pune-412 307 on.....

  
Internal Examiner

  
External Examiner



# **A Project Report**

**ON**

## **"Phishing Websites Detection Using Deep Learning framework"**

**SUBMITTED TO THE**



**SAVTRIBAI PHULE PUNE UNIVERSITY**

**In partial fulfillment for the award of the Degree of**

**"Bachelor of Engineering"**

**in**

**Information Technology**

**Submitted By**

**RUTUJA RAMESH MASHERE**

**B150268515**

**AMITA DHANANJAY CHORGHE**

**B150268507**

**VAISHNAVI PRADEEP NARKHEDE**

**B150268518**

**SAURAV VIJAY SONAWANE**

**B150268528**

**Under The Guidance of**

**Prof. A.B.Gadewar**



**Department of Information Technology**  
**PDEA's College of Engineering, Manjari (Bk.)**



## CERTIFICATE

This is to certify that the project report entitles **"Phishing Websites Detection Using Deep Learning framework"** being Submitted by

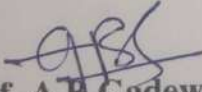
**RUTUJA RAMESH MASHERE**  
**AMITA DHANANJAY CHORGHE**  
**VAISHNAVI PRADEEP NARKHEDE**  
**SAURAV VIJAY SONAWANE**

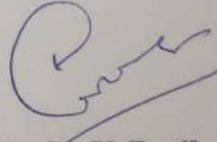
**B150268515**  
**B150268507**  
**B150268518**  
**B150268528**

is a record of bonafide work carried out by them under the supervision and guidance of **Prof. A.B.Gadewar** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

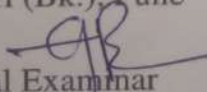
Place:-**30/05/2022**

Time:- Manjari (Bk.), Pune

  
**Prof. A.B. Gadewar**  
Guide

  
**Dr. R. V. Patil**  
Principal

This Project report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on . . . . .

  
Internal Examiner

  
External Examiner

**A PROJECT REPORT**  
**on**  
**“SMART HEALTH CARD USING CONVOLUTIONAL**  
**NEURAL NETWORK”**

SUBMITTED TO THE



SAVTRIBAI PHULE PUNE UNIVERSITY

In partial fulfillment for the award of the Degree of

**BACHELOR OF ENGINEERING**

in

**INFORMATION TECHNOLOGY**

by

**Sourav Hanumant Jagtap**  
**Pankaj Deepakrao Padole**  
**Prajwal Vijay Dange**

**B150268511**  
**B150268520**  
**B150268508**

Under the guidance of

**Prof. Shalu Saraswat**



Department of Information Technology

PDEA's College of Engineering, Manjari (Bk.)

Pune - 412307.

2021-22



### CERTIFICATE

This is to certify that the project report entitled "Smart Health Card Using Convolutional Neural Network" being submitted by

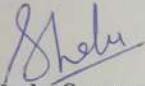
**Sourav Hanumant Jagtap**  
**Pankaj Deepakrao Padole**  
**Prajwal Vijay Dange**

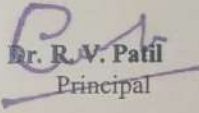
**B150268511**  
**B150268520**  
**B150268508**

is a record of bonafide work carried out by him under the supervision and guidance of **Prof. Shalu Saraswat** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

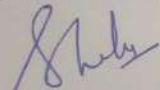
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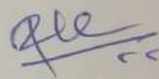
Place: Manjari (Bk.), Pune

  
**Prof. Shalu Saraswat**  
Guide

  
**Dr. R.V. Patil**  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on 30/05/2022

...  
  
Internal Examiner

  
External Examiner



**A PROJECT REPORT**  
**on**  
**“FACE RECOGNITION FOR ATTENDANCE SYSTEM USING**  
**DEEP LEARNING AND NEURAL NETWORK”**

SUBMITTED TO THE



SAVTRIBAI PHULE PUNE UNIVERSITY

In partial fulfillment for the award of the Degree of

**“Bachelor of Engineering”**

in

Information Technology

Submitted By

**ABHIJEET BALU THOMBARE**

**B150268532**

**ABHISHEK AJAY DIWATE**

**B150268509**

**PRAMOD DAULAT BORHADE**

**B150268504**

**NISHANT SURESH DESHMUKH**

**B150268519**

Under the guidance of

**Prof. R. M. Kawale**



**Department of Information Technology**

**PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-22**



## CERTIFICATE

This is to certify that the project report entitled "**Face Recognition for Attendance System using Deep Learning and Neural Network**" being submitted by

**ABHIJEET BALU THOMBARE**

**B150268532**

**ABHISHEK AJAY DIWATE**

**B150268509**

**PRAMOD DAULAT BORHADE**

**B150268504**

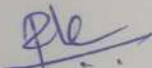
**NISHANT SURESH DESHMUKH**

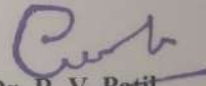
**B150268519**

is a record of bonafide work carried out by them under the supervision and guidance of **Prof. R. M. Kawale** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

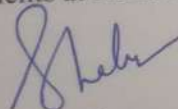
Date: **30/05/2022**

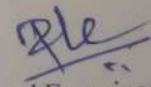
Place: Manjari (Bk.), Pune

  
**Prof. R. M. Kawale**  
Guide

  
**Dr. R. V. Patil**  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on **30/5/2022**

  
Internal Examiner

  
External Examiner

**A PROJECT REPORT ON**  
**Designing Disease Prediction Models Using**  
**Machine Learning Approach**  
**SUBMITTED TO THE**



**SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE**  
**IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE**  
**OF**  
**BACHELOR OF ENGINEERING**  
**IN**  
**INFORMATION TECHNOLOGY**  
**SUBMITTED BY,**

**1.Name: Vaishnavi Patole**

**Exam No: B150268535**

**2.Name: Harshal Chaudhari**

**Exam No: B150268505**

**3.Name: Lalit Jadhav**

**Exam No: B150268510**

**UNDER THE GUIDANCE OF**

**Prof. N. R. Jain**



**Department Of Information Technology**  
**PDEA's College of Engineering, Manjari (Bk.)**  
**Pune- 412307**

**2021-22**

## CERTIFICATE

This is to certify that the project report entitled

**Designing Disease Prediction Models Using Machine Learning Approach**

**SUBMITTED BY,**

**1.Name: Vaishnavi Patole**

**Exam No: B150268535**

**2.Name: Harshal Chaudhari**

**Exam No: B150268505**

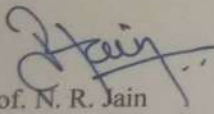
**3.Name: Lalit Jadhav**

**Exam No: B150268510**

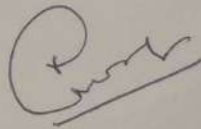
is a record of bonafide work carried out by them under the supervision of Prof. Shalu Saraswat and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (Information Technology)

**Date:**

**Place:** Manjari (Bk.), Pune

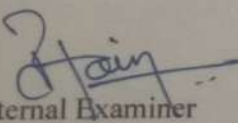
  
Prof. N. R. Jain

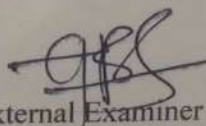
Guide



**Dr. R. V. Patil**

Principal

  
Internal Examiner

  
External Examiner



**A PROJECT REPORT**  
**on**  
**“GRAPE LEAF DISEASE DETECTION USING DEEP**  
**LEARNING”**

SUBMITTED TO THE



**SAVTRIBAI PHULE PUNE UNIVERSITY**

In partial fulfillment for the award of the Degree of

**“Bachelor of Engineering”**

in

**Information Technology**

Submitted By

**SHUBHAM SHRIRAM CHAUDHARI**

**B150268506**

**SHWETA JAYSHING SHINARE**

**B150268529**

**NAMRATA DHANANJAY LOKHANDE**

**B150268514**

**PALLAVI AASARAM MOGARE**

**B150268517**

Under the guidance of

**Prof. Dr.D.S. Hirolikar**



**Department of Information Technology**

**PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-22**



This is to certify that the project report entitled **"Grape Leaf Disease Detection Using Deep Learning"** being submitted by

**SHUBHAM SHRIRAM CHAUDHARI**

**B150268506**

**SHWETA JAYSHING SHINARE**

**B150268529**

**NAMRATA DHANANJAY LOKHANDE**

**B150268514**

**PALLAVI AASARAM MOGARE**

**B150268517**

is a record of bonafide work carried out by them under the supervision and guidance of **Prof.Dr.D.S.Hirolikar** in partial fulfillment of the requirement for **BE (Information Technology) - 2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Date: **30/05/2022**

Place: Manjari (Bk.), Pune

**Prof. Dr.D.S. Hirolikar**  
Guide

**Dr. R. V. Patil**  
principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on **30/5/22**

Internal Examiner

External Examiner

**A PROJECT REPORT**  
on  
**“A Road Accident Prediction Model using Data Mining  
Techniques”**

SUBMITTED TO THE



SAVTRIBAI PHULE PUNE UNIVERSITY  
In partial fulfillment for the award of the Degree of

**“Bachelor of Engineering”**

in

Information Technology

Submitted By

**ANUJA PRASHANT KASABE  
DIPTI SUNIL SOLANKAR  
KOMAL BHAUSAHEB PAWAR**

**B150268512  
B150268530  
B150268522**

Under the guidance of

**Prof. S. Saraswat**



**Department of Information Technology  
PDEA's College of Engineering, Manjari (Bk.)**

**Pune - 412307.**

**2021-22**



## CERTIFICATE

This is to certify that the project report entitled “A Road Accident Prediction Model Using Data Mining Techniques” being submitted by

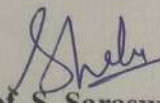
**ANUJA PRASHANT KASABE**  
**DIPTI SUNIL SOLANKAR**  
**KOMAL BHAUSAHEB PAWAR**

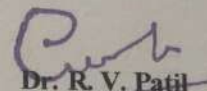
**B150268512**  
**B150268530**  
**B150268522**

is a record of bonafide work carried out by them under the supervision and guidance of **Prof. S. Saraswat** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

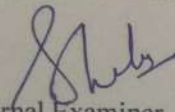
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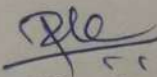
Place: Manjari (Bk.), Pune

  
**Prof. S. Saraswat**  
Guide

  
**Dr. R. V. Patil**  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on 30/05/2022

...  
  
Internal Examiner

  
External Examiner



**A PROJECT REPORT**  
**On**  
**“PUZZLE BASED CAPTCHA FOR AUTHENTICATION OF**  
**WEBCCHAT APPLICATION”**

SUBMITTED TO THE



**SAVTRIBAI PHULE PUNE UNIVERSITY**

In partial fulfillment for the award of the Degree of

**“Bachelor of Engineering”**

In

Information Technology

By

**ADITYA BHOSALE**  
**NIKHIL KURUP**  
**FAHIM SANDE**

**B150268503**  
**B150268513**  
**B150268526**

Under the guidance of

**Prof. A.B. GADEWAR**



Department of Information Technology  
PDEA's College of Engineering, Manjari (Bk.)

Pune - 412307

**2021-22**



## CERTIFICATE

This is to certify that the project report entitled "**Puzzle based CAPTCHA for authentication of WebChat application**" being submitted by

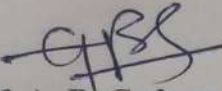
**ADITYA BHOSALE**  
**NIKHIL KURUP**  
**FAHIM SANDE**

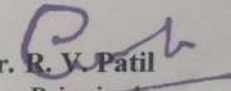
**B150268503**  
**B150268513**  
**B150268526**

Is a record of bonafide work carried out by him under the supervision and guidance of **Prof. A. B. Gadewar** in partial fulfillment of the requirement for **BE (Information Technology)-2015 Course** of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Date: **30/05/2022**

Place: Manjari (Bk.), Pune

  
**Prof. A. B. Gadewar**  
Guide

  
**Dr. R. V. Patil**  
Principal

This Project stage 2 report has been examined by us as per the Savitribai Phule Pune University, Pune requirements at PDEA's College of Engineering, Manjari (Bk.), Pune - 412 307 on . . . . .

  
Internal Examiner

  
External Examiner

**A PROJECT REPORT**  
**On**  
**INTELLIGENT MOVIE RECOMMENDATION SYSTEM**  
**USING AI AND ML**

SUBMITTED TO THE



**SAVITRIBAI PHULE PUNE UNIVERSITY**  
IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF

**BACHELOR OF ENGINEERING**

in

**INFORMATION TECHNOLOGY**

by

<b>AJINKYA SATUSE</b>	<b>(71908321E)</b>
<b>OMKAR BHALERAO</b>	<b>(72012653D)</b>
<b>PAVAN PAWAR</b>	<b>(72001665H)</b>
<b>HRITHIK THORAT</b>	<b>(72001668B)</b>

Under the guidance of

**Prof. Dr. D. S. Hirolikar**



Department of Information Technology  
PDEA's College of Engineering, Manjari (Bk.)

Pune - 412307.

**2021-2022**



### CERTIFICATE

This is to certify that the project entitled "Intelligent Movie Recommendation System Using AI and ML" being submitted by:

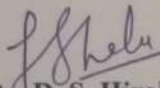
**Ajinkya Satuse**  
**Omkar Bhalerao**  
**Pavan Pawar**  
**Hrithik Thorat**

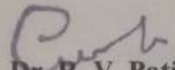
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**72012653D**  
**72001665H**  
**72001668B**

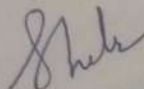
is a record of bonafide work carried out by them under the supervision of **Prof. Dr. D. S. Hirolikar** and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University for the award of the Degree of Bachelor of Engineering (Information Technology)-2015 Course of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

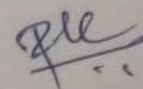
Date: 30/05/2022

Place: Manjari (Bk.), Pune

  
**Prof. Dr. D. S. Hirolikar**  
Guide

  
**Dr. R. V. Patil**  
Principal

  
Internal Examiner

  
External Examiner

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



# A Project Report

on

## “HANDWRITTEN DIGITS RECOGNITION USING MACHINE LEARNING”

Submitted to the



Savitribai Phule Pune University

In partial fulfilment for the award of the Degree of

**Bachelor of Engineering**

in

**Information Technology**

By

**Tarun Dubey**

**EXAM NO.B150268531**

**Anurag K Singh**

**EXAM NO.B150268501**

**Shubham Patil**

**EXAM NO.B150268521**

Under the guidance of

**Prof. N.R. Jain**



Department of Information Technology

PDEA's College of Engineering, Manjari (Bk.)

Pune - 412307.

**2021-2022**



## CERTIFICATE

This is to certify that project entitled **“HANDWRITTEN DIGITS RECOGNITION USING MACHINE LEARNING”**

Being submitted by

**Tarun Dubey**

**EXAM NO.B150268531**

**Shubham Patil**

**EXAM NO.B150268521**

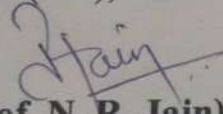
**Anurag K Singh**

**EXAM NO.B150268501**

Group: A is a record of bonafide work carried out by him/her under the supervision and guidance of in Prof. N. R. Jain partial fulfilment of the requirement for Bachelor of Engineering (Information Technology)-2015 Course of Savitribai Phule Pune University, Pune in the academic year 2021-2022.

Date: 30 / 05 /2022

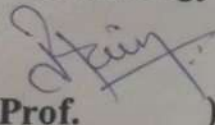
Place: Manjari (Bk.), Pune

  
**(Prof. N. R. Jain)**

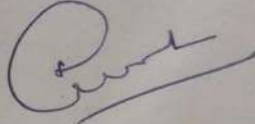
Guide,

Department of Information

Technology

  
**(Prof. N. R. Jain)**

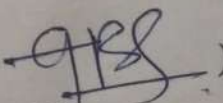
Internal Examiner

  
**(Dr. R. V. Patil)**

**Principal**

PDEA's Collage of Engineering,

Manjari (Bk.) Pune

  
**(Prof. N. R. Jain)**

External Examiner