

Roll No.: S3110 61

Exam. Seat No.: S3190533076



Zeal Education Society's

# Zeal College of Engineering & Research

(Approved by AICTE, Govt. of Maharashtra & Affiliated to SPPU)

S. No. 39, Narhe, Pune 411041

www.zealeducation.com

## CERTIFICATE

This is to certify that,

Mr. / ~~Miss~~ Tanish . M. Kunjir

has successfully completed the termwork in

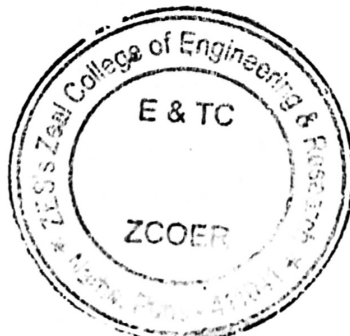
Subject project Base Learning

as per syllabus of the Savitribai Phule Pune University  
during the academic year 20 2 3 - 20 2 4

Sem. IV

Date :

  
Staff Member



  
Head of Department

# ZEAL COLLEGE OF ENGINEERING AND RESEARCH

NARHE, PUNE - 411041

## DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING



### CERTIFICATE

Certified that the project work entitled “ **DC MOTOR SPEED AND LED BRIGHTNESS CONTROLLER CIRCUIT USING PWM**” carried out by **Mr. KHADE SANKET KAILAS** ,  
**Mr. KARNDE PRASHANT SANJAY** , **Mr. KADAM SHREYASH SURYANT**

and **Mr. ADITYA SANJAY JADHAV** Bonafide students of **ZCOER**, in partial fulfillment for the award of **Bachelor of Engineering** in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year **2023-2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.

The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

**C.V. PATIL**

**Professor**

**Dept. of E&TC, ZCOER**

**Dr. V. A. Mane**

**HOD**

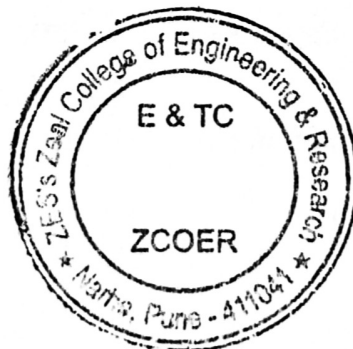
**Dept. of E&TC, ZCOER**

**Dr. A. M. Kate**

**Principal**

**ZCOER**

Name of the examiners



Signature with date



Roll No.: 5311037

Exam. Seat No.: S190533038



Zeal Education Society's

# Zeal College of Engineering & Research

(Approved by AICTE, Govt. of Maharashtra & Affiliated to SPPU)  
S. No. 39, Narhe, Pune 411041  
www.zealeducation.com

## CERTIFICATE

This is to certify that,

Mr. / Miss Om Shivaji Hagawane

has successfully completed the termwork in

Subject Project Based Learning

as per syllabus of the Savitribai Phule Pune University  
during the academic year 2023 - 2024

Sem. IV

Date :

  
Staff Member



  
Head of Department



## CERTIFICATE

2023-24

This is to certify that the project titled

### DOOR SAFETY ALARAM


submitted by,

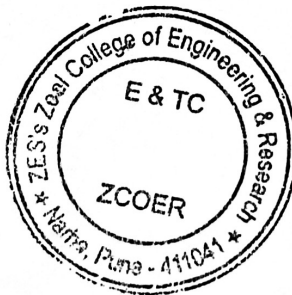
**Sahil Arote(S311007)**


is the bonafide record of work done by him under my supervision, in partial fulfillment of the requirement of the graduate degree course in Electronics and Telecommunication Engineering in Zeal college of Engineering of University of Pune.

Date:

Place:

  
Prof C.V Patil  
(PBL Guide)



  
Prof V.A Mane  
(HOD)  
Department of E&TC



## CERTIFICATE

2023-24

This is to certify that the project titled

### Function Generator


submitted by,

**Prathamesh Bhosale(S311014)**


is the bonafide record of work done by him under my supervision, in partial fulfillment of the requirement of the graduate degree course in Electronics and Telecommunication Engineering in Zeal college of Engineering of University of Pune.

Date:

Place:

  
24/11/24  
Prof C.V Patil  
(PBL Guide)



  
Prof V.A Mane  
(HOD)  
Department of E&TC

Roll No.:

Exam. Seat No.:



Zeal Education Society's

# Zeal College of Engineering & Research

(Approved by AICTE, Govt. of Maharashtra & Affiliated to SPPU)

S. No. 39, Narhe, Pune 411041

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## CERTIFICATE

This is to certify that,

Mr. / ~~Miss~~ Yash Sachin Jagtap

has successfully completed the termwork in

Subject Project Based learning

as per syllabus of the Savitribai Phule Pune University  
during the academic year 2023 - 2024

Sem. IV

Date :

  
Staff Member



  
Head of Department

ZEAL COLLEGE OF ENGINEERING AND RESEARCH  
PUNE-411046

## CERTIFICATE

THIS IS TO CERTIFY THAT

YASH DATTATRAY CHOUDHARY(S311073)

OMKAR SHRIKANT HARIHAR(S311076)


PIYUSH MAHANTESH JADHAV(S311077)

ANIKET ANANDRAO KADAM(S311078)

HAVE SUCCESSFULLY SUBMITTED THEIR PROJECT

**“Temperature control fan using Arduino and LM-35”**

DURING ACADEMIC YEAR 2023-24 IN B.E COURSE OF SECOND  
YEAR ELECTRONICS AND TELECOMMUNICATION ENGINEERING

  
PROF.CV.PATIL  
GUIDE



  
Dr.V.A.MANE  
HOD

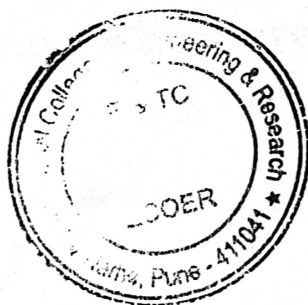
Department of Electronics and Telecommunications

## CERTIFICATE

This is to certify that the report entitled " AUTOMATIC BRAKING SYSTEM " submitted by Mr.Harsh Jitendra Gugale(S311036), Miss.Prerna Hema Jadhav (S311042), Mr.Ayush Bandu Jamdhade (S311045) , Miss.Gitanjali Dattatraya Khochare (S311056), to the Zeal College of Engineering and Research, Narhe, Pune in partial fulfilment of the requirements for the award of the Project Based Learning in Second Year Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other Universities or institutes for any purpose.

GUIDE:

  
Prof.C.V.Patil



  
HOD

Prof.V.A Mane





## Certificate

This is to certify that Miss.Pooja.B.Kulkarni Roll No.60 of Semester IV of Engineering in Electronics and Telecommunication of Institute Zeal College of Engineering and Reasearch has completed the Project satisfactorily in Subject Project Based Learning for the academic year 2023 – 2024 as prescribed in the curriculum.

Place: Pune

Date: 24/4/24

  
Subject Teacher

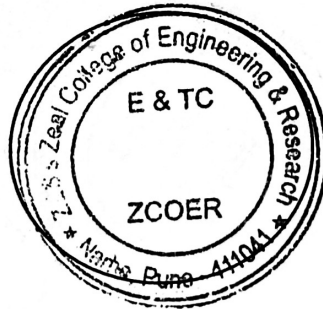
Prof.C.V.Patil

Roll No: S311060

Exam. Seat No: \_\_\_\_\_

  
Head of Department

Prof.V.A.Mane





## Certificate

This is to certify that Mast. Aditya Ambadkar Roll No.04 of Semester IV of Engineering in Electronics and Telecommunication of Institute Zeal College of Engineering and Reasearch has completed the Project satisfactorily in Subject Project Based Learning for the academic year 2023 – 2024 as prescribed in the curriculum.

Place: Pune


Roll No: S311004

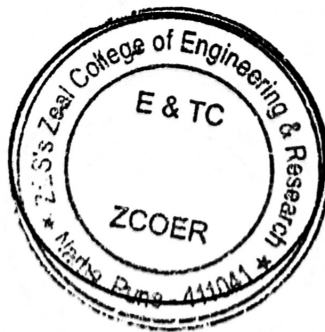
Date:

Exam. Seat No: 5190533007

  
**Subject Teacher**

Prof.C.V.Patil

  
**Head of Department**  
Prof.V.A.Mane





## Certificate

This is to certify that Miss.Tanuja Dhawale Roll No.22 of Semester IV of Engineering in Electronics and Telecommunication of Institute Zeal College of Engineering and Reasearch has completed the Project satisfactorily in Subject Project Based Learning for the academic year 2023 – 2024 as prescribed in the curriculum.

Place: Pune

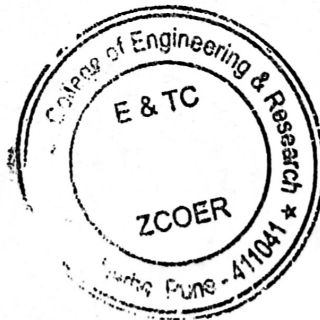
Roll No: S311022

Date: 24-4-24

Exam. Seat No: S8190533024

  
Subject Teacher

Prof.C.V.Patil



  
Head of Department  
Prof.V.A.Mane



## Certificate

This is to certify that Mast. **Bibhishan Dhere** Roll No.24 of Semester IV of Engineering in **Electronics and Telecommunication** of Institute **Zeal College of Engineering and Reasearch** has completed the **Project** satisfactorily in Subject **Light Sensitivity Alaram** the academic year **2023 – 2024** as prescribed in the curriculum.

Place: Pune

Roll No: S311024

Date:

Exam. Seat No: \_\_\_\_\_

  
**Subject Teacher**

Prof.C.V.Patil

  
**Head of Department**

Prof.V.A.Mane





## Certificate

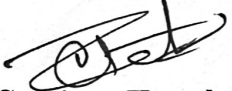
This is to certify that Mast. **Sahil Bhagat** Roll No.71 of Semester **IV** of Engineering in **Electronics and Telecommunication** of Institute **Zeal College of Engineering and Reasearch** has completed the **Project** satisfactorily in Subject **Project Based Learning** for the academic year **2023 – 2024** as prescribed in the curriculum.

Place: Pune

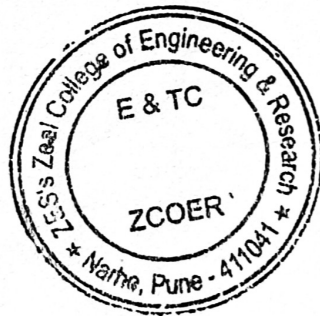
Roll No: S311071


Date:

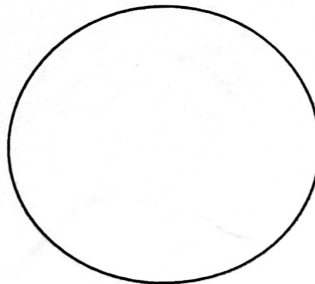
Exam. Seat No: 5190533013

  
**Subject Teacher**

Prof.C.V.Patil



  
**Head of Department**  
Prof.V.A.Mane





## Certificate

This is to certify that Miss **Lendave Aishwarya** Roll No.66 of Semester **IV** of Engineering in **Electronics and Telecommunication** of Institute **Zeal College of Engineering and Reasearch** has completed the **Project** satisfactorily in Subject **Project Based Learning** for the academic year **2023 – 2024** as prescribed in the curriculum.

Place: Pune

Roll No: S311066

Date:

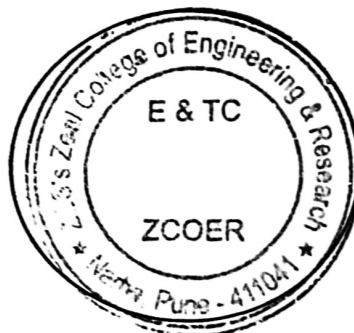
Exam. Seat No: \_\_\_\_\_

  
**Subject Teacher**

Prof.C.V.Patil

  
**Head of Department**

Prof.V.A.Mane





**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING**



**Zeal College of Engineering & Research, Pune**  
Narhe. Pune-411041

**CERTIFICATE**

This is to certify that the seminar report entitled **“CLEAN SAILOR”** submitted by **Bhatt Bhakti Naresh (T311003), Shinde Sayali Pravin (T311065), Thombare Ajay Kakasaheb (T311069)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

PR  
12/04/2024

**Prof. P.A.Khade**  
Guide



✓

**Prof.V.A.Mane**  
Head of  
Department

## DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION



**Zeal College of Engineering & Research, Pune**  
Narhe. Pune-411041

### CERTIFICATE

This is to certify that the seminar report entitled “**AUTOMATED HUMAN FOLLOWING TROLLY WITH BLUETOOTH CONTROL**” submitted by **Yogita Raut (T311053)**, **Aditi Shinde (T311060)**, **Nayanshi Wasnik (T311073)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

1A  
T311061/2024

**Prof. P.A.Khade**  
Guide



**Prof. V.A.Mane**  
Head of  
Department

# **ZEAL COLLEGE OF ENGINEERING AND RESEARCH**

NARHE, PUNE - 411041

## **DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING**

### **CERTIFICATE**

Certified that the project work entitled "**HOME AUTOMATION**" carried out by **Ms. SAKSHI KAMBLE(T311031)**, **Ms. DHANSHRI KENJALE(T311031)** and **Mr. DNYANESHWAR SUVARNKAR(T311068)** Bonafide students of **ZCOER**, in partial fulfillment for the award of **Bachelor of Engineering** in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year **2023-2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.

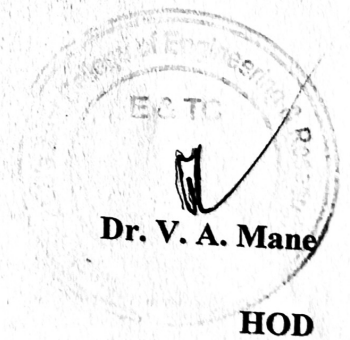
The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.



**Prof.P.A.Khade**

**GUIDE**

**Dept. of E&TC, ZCOER**



**HOD**  
**Dept. of E&TC, ZCOER**

# DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION



**Zeal College of Engineering & Research, Pune**

**Narhe. Pune-411041**

## CERTIFICATE

This is to certify that the seminar report entitled “**ACCIDENT PREVENTION SYSTEM**” submitted by **Rawjiwar Aditya vitthal (T311054), Satpute Vaibhav Krushna(T311058), Sawant Suraj Mahadev(T311058)** is the bonafide

record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

**Prof. P.A. Khade**

**Guide**

**Prof. V.A. Mane**

**Head of  
Department**

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**



**Zeal College of Engineering & Research, Pune**  
Narhe. Pune-411041


**CERTIFICATE**

This is to certify that the seminar report entitled “**RFID BASED INVENTORY TRACKING SYSTEM**” submitted by **HIRAL MANOJ PATEL (T311041), SANIKA DATTATRAY SHINDE (T311064), MAYUR MARUTI KAMBLE (T311030)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

PAC  
12/04/2024

**Prof. P.A.Khade**  
Guide



  
**Prof. V.A. Mane**  
Head of  
Department



**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING**



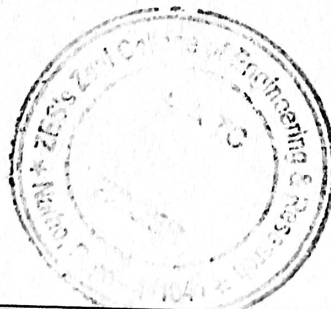
**Zeal College of Engineering & Research, Pune**  
Narhe. Pune-411041

**CERTIFICATE**

This is to certify that the seminar report entitled “**Solar Panel Cleaning Robot**” submitted by **Atharv Baban Barge(T311001)**, **Yash Yogesh Bhagat (T311002)**, **Avishkar Bhagawat Chavan (T311009)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

*PAC*  
*12/04/2024*

**Prof. P.A.Khade**  
**Guide**



*[Signature]*  
**Prof.V.A.Mane**  
**Head of  
Department**



**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING**



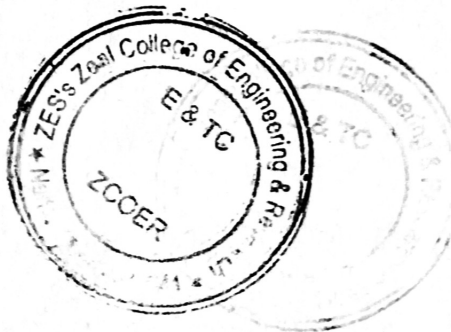
**Zeal College of Engineering & Research, Pune**  
Narhe. Pune-411041

**CERTIFICATE**

This is to certify that the seminar report entitled **“AUTOMATIC BRIDGE HEIGHT INCREASE WHEN FLOODING”** submitted by **BHUSARE PRASAD BALASAHEB= (Roll No: T311006)**, **BORUDE AKASH DNYANDEO= (Roll No: T311008)**, **DHAKNE VAISHNAVI SHIVAJI= (Roll No: T311012)**, **SANKPAL SAKSHI UMAKANT = (Roll No: T311055)**

is the bonafide record of work done by him/her under my supervision, in partial fulfilment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

**Prof. P.A. Khade**  
Guide



**Prof. V.A. Mane**  
Head of  
Department

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING**



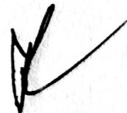
**Zeal College of Engineering & Research, Pune**  
Narhe, Pune-411041

**CERTIFICATE**

This is to certify that the seminar report entitled **“TEMPRATURE BASED FAN SPEED CONTROL AND MONITORING USING ARDUINO”** submitted by **Nikam Rohit Dipak (T311040), Patil Kaustubh Sunil (T311044), Pokharkar Tejas Babasaheb (T311050)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24.

  
**Prof. Prashant Khade**  
**Guide**



  
**Prof. V.A. Mane**  
**Head of Department**

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING**



**Zeal College of Engineering & Research, Pune**

**Narhe.Pune-411041**

**CERTIFICATE**

This is to certify that the seminar report entitled “**Solar Tracking System**” submitted by **Kade Dnyaneshwari Ankush(T311026), Kakade Neha Pandit(T311027), Patil Dhanashri Appaso (T311043)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

**Prof.P.A.Khade**  
**Guide**



**Prof.V.A.Mane**  
**Head**  
**of Department**


**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING**

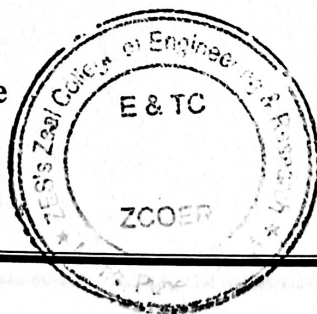



**Zeal College of Engineering & Research, Pune**  
Narhe, Pune-411041

**CERTIFICATE**

This is to certify that the seminar report entitled **"THIRD EYE FOR BLIND"** submitted by **Bomble Yash Sandip (T311007), Gujar Sakshi Ganesh (T311017), Jadhav Shruti Sachin (T311020)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

  
**Prof. P.A. Khade**  
Guide



  
**Prof. V.A. Mane**  
Head of  
Department



DEPARTMENT OF  
ELECTRONICS AND TELECOMUNICATION ENGINEERING

Zeal College of Engineering & Research,

Narhe, Pune, Maharashtra 411041



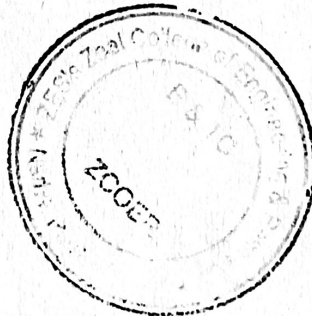
CERTIFICATE

This is to certify that the seminar report entitled "Smart Blind Stick" submitted by **Gauri Santosh Kulkarni(T311033), Tejas Ganesh Mali(T311037), Krishna Tanaji Patil(T311045)** is the Bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

PNK  
12/04/2024

Prof.P.A.Khade

Guide



  
Prof.V.A.Mane

Head of Department

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING**



**Zeal College of Engineering & Research, Pune**  
Narhe, Pune-411041


---

**CERTIFICATE**

This is to certify that the seminar report entitled **“IV BAG MONITORING SYSTEM”** submitted by **Shinde Rutuja Nanasaheb (T311062), Shirsat Pranav Sharad (T311066), Yadav Gauri Vitthal (T311074)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

  
**Prof. P.A. Khade**  
Guide



  
**Prof. V.A. Mane**  
Head of  
Department



DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING



**Zeal College of Engineering & Research, Pune**  
Narhe, Pune-411041

**CERTIFICATE**

This is to certify that the seminar report entitled **“Password Based Door Lock System”** submitted by **Rushikesh Pathak (T311042), Diksha Bhul (T311005), Sanika Chengde (T311010)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

*PAL*  
*12/04/2024*

**Prof. P.A.Khade**  
**Guide**



*[Signature]*  
**Prof. V.A.Mane**  
**Head of Department**

## DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION



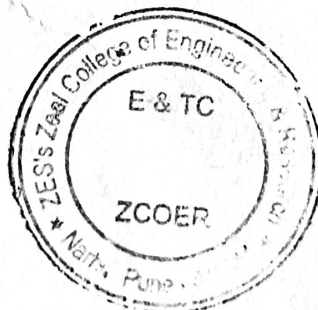
**Zeal College of Engineering & Research, Pune**  
Narhe. Pune-411041

### CERTIFICATE

This is to certify that the seminar report entitled “**Automatic Plant watering system**” submitted by **Purva Pokale (Roll No: T311049)** **Prajakta Jagtap (Roll No: T311022)** **Niranjn Kale (Roll No: T311029)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24

*PA*  
*12/06/2024*

**Prof. P.A.Khade**  
**Guide**



*V.A.*  
*12/06/2024*

**Prof. V.A.Mane**  
**Head of Department**

**DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING**




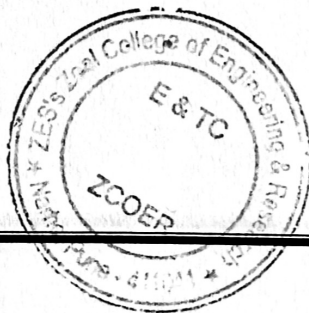
**Zeal College of Engineering & Research, Pune**

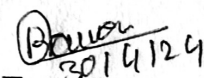
**Narhe.Pune-411041**

**CERTIFICATE FOR CONDUCTION OF EXAM**

This is to certify that the seminar presentation of **Patil Sanket Subhash (T311046), Pawar Sanjivani Sanjay(T311047), Phadtare Siddharth Baburao (T311048)** with seminar title **"Air Quality Monitoring System"** has been held on at Department of Electronics and Telecommunication Engineering, Zeal College of Engineering & Research, Narhe, Pune-411041.

  
**Prof.P.A.Khade**  
**Guide E & TC**



  
**Examiner**

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING**



**Zeal College of Engineering & Research, Pune**  
Narhe, Pune-411041

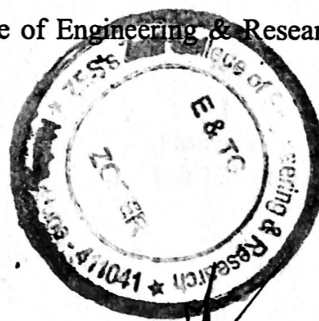
**CERTIFICATE**

This is to certify that the mini project report entitled **"Home automation using voice assistant"** submitted by **Ashish Dhawade (T311013), Sujay kadam (T311025), Yash More (T311038)** is the bonafide record of work done by him/her under my supervision, in partial fulfillment of the requirement for graduate degree course in Electronic and Telecommunication Engineering from Zeal College of Engineering & Research, Narhe, Pune for the academic year of 2023-24.

  
P.A.

Prof. Prashant Khade

Guide



Prof. V.A. Mane

Head of Department

Zeal Education Society  
Zeal College of Engineering & Research,  
Narhe Pune - 411 041




ESTD-1996


DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING  
**Certificate**


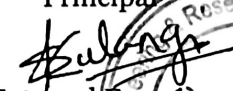
This is to certify that the project entitled "**Smart Portable Medicine Box**" is bonafide work carried out by following students.

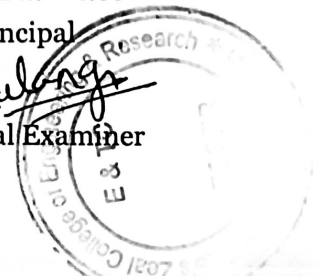
- |                               |                     |
|-------------------------------|---------------------|
| 1. Dangare Abhishek Anil      | Seat No.B190533013  |
| 2. Shinde Rushikesh Bapusaheb | Seat No. B190533054 |
| 3. Sanap Pradip Ajinath       | Seat No. B190533057 |
| 4. Wankhede Shruti Dhanraj    | Seat No. B190533075 |

In partial fulfillment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, during the year ~~2017-18~~ <sup>2023-24</sup>. It is certified that the Dissertation report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
**Dr V.A. Mane**  
Head Of Department,  
Project Guide

  
**Prof. P.A More**  
Project Co-ordinator

  
**Dr A. M. Kate**  
Principal  
  
External Examiner





A  
Project Report on  
**REMOTELY CONTROLLED SMART ELECTRIC VEHICLE USING  
ADVANCED EMBEDDED SYSTEM**

Submitted to the Savitribai Phule Pune University, Pune  
in partial Fulfillment of the Requirements  
for Graduate Degree Course  
in  
Electronics and Telecommunication Engineering

Submitted By

SACHIN DHANGAR	(B190533018)
OM JADHAV	(B190533028)
OMKAR YADAV	(B190533071)

Under the Guidance of  
Prof. POOJA MENON



**DEPARTMENT OF  
ELECTRONICS AND TELECOMMUNICATION ENGINEERING  
ZEAL EDUCATION SOCIETY'S  
ZEAL COLLEGE OF ENGINEERING AND RESEARCH,  
NARHE, PUNE-411041**

**Academic Year: 2023-2024**

[2023-2024]

Zeal Education Society's

Zeal College of Engineering and Research

Narhe, Pune -411041




## CERTIFICATE

This is to certify that *Miss. Lohar Shruti, Miss. More Sakshi, Miss. Tathe Prerana, Miss. Dal Divya* has successfully completed the Project Stage – II entitled “**SMART POLY HOUSE MONITORING SYSTEM**” under my supervision, in the partial fulfillment of Bachelor of Engineering –Electronics and telecommunication Engineering of Savitribai Phule University of Pune.

Date : 28/5/2024

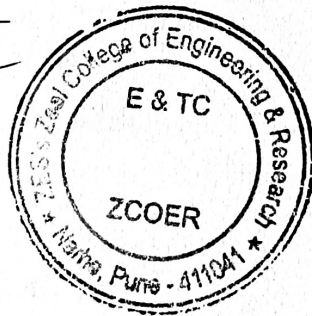
Place : Narhe

  
Prof. G. S. Kadam

Project Guide

  
Dr. V. A. Mane

Head of Department

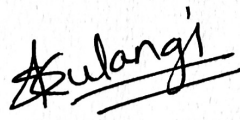


  
Prof. P.A More

project coordinator

  
Dr. A. M. Kate

Principal

  
External Examiner



# **ZEAL COLLEGE OF ENGINEERING AND RESEARCH**

NARHE, PUNE - 411041

## **DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING**



### **CERTIFICATE**

This is to certify that the project stage II entitled "COLOR BASED SORTING MACHINE" is Bona- fide work carried out by following students -

**Vaishnavi Pathak [B311040]**

**Shubham Nanaware [B311038]**

**Vinay Dhangar [B311009]**

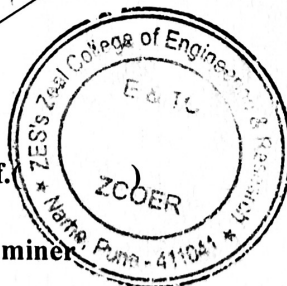
In fulfilment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-24. It is certified that the project stage II report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

Prof.  **Ganesh Kadam**

Guide

Prof. 

Examiner



**Dr.V.A.Mane**

HOD

  
**Dr.A.M.Kate**

Principal

**Zeal Education Society's**  
**Zeal College of Engineering & Research, Narhe,**  
**Pune-411 041**



**Department of Electronics and Telecommunication Engineering**

**CERTIFICATE**

This is to certify that the project stage II entitled **"IOT-based Pipe-Inspection and Cleaning Robot"** is bonafide work carried out by following students


1. Supriya Sunil kamble
2. Shubham V. Kalamkar
3. Sahil S. Kurhade


[B311024]


[B311022]

[B311030]

In partial fulfillment for the award of the degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-24. It is certified that the project stage II report has been approved as it satisfies the academic requirements with respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
**Dr. Himanshu Chaurasiya**  
Guide

  
**Prof. P. A. More**  
Project Coordinator

  
**Dr. V. A. Mane**  
HOD

  
**Dr. A. M. Kate**  
Principal



ZCOER



Zeal Education Society's

Zeal College of Engineering and Research, Narhe,  
Pune-411041

(SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE)



DEPARTMENT OF  
ELECTRONICS AND TELECOMMUNICATION ENGINEERING

CERTIFICATE


This is to certify that project stage II entitled "Auto Loop Charging for Ev's"  
is bonafide work carried out by the following students,

- |                        |                          |
|------------------------|--------------------------|
| 1) Shravani Patil      | Exam Seat No. B190533049 |
| 2) Aditi Niphade       | Exam Seat No. B190533146 |
| 3) Kunal Thakare       | Exam Seat No. B190533070 |
| 4) Pratham Suryavanshi | Exam Seat No. B190533067 |

In partial fulfillment for the award degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-2024. It is certified that the project stage II report has been approved as it satisfies the academic requirements with respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
Prof. Ajit Kadam


Guide

  
External Examiner

  
Dr. V.A. MANE

Head of the Department



  
Dr. AJIT.M.  
KATE  
Principal

ZCOER DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION  
ENGINEERING 2023-24

**Zeal Education Society's  
Zeal College of Engineering & Research, Narhe,  
Pune-411 041**



**Department of Electronics and Telecommunication Engineering**

**CERTIFICATE**

This is to certify that the Project Stage II entitled “**Plant Leaf Disease Detection using Image Processing**” is bonafide work carried out by following students

1. Rohan Abhay Bhosale
2. Aniket Bhagawat Paul
3. Sahil Ganesh Shinde


Exam Seat No: B190533006


Exam Seat No: B190533082

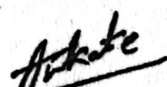
Exam Seat No: B190533061

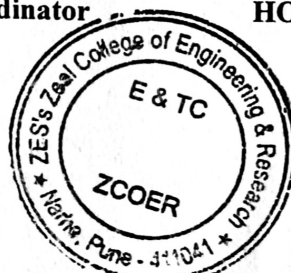
In partial fulfilment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-24. It is certified that the project stage II report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
**Prof. Pooja Menon**  
Guide

  
**Prof. P.A. More**  
Coordinator

  
**Prof. V. A. Mane**  
HOD

  
**Dr. A. M. Kate**  
Principal





**Zeal Education Society's**  
**ZEAL COLLEGE OF ENGINEERING & RESEARCH,**  
**NARHE, PUNE – 411041**  
**(Affiliated to Savitribai Phule Pune University)**



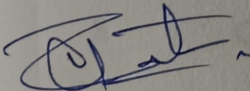
**Department of Electronics and Telecommunication  
Engineering**

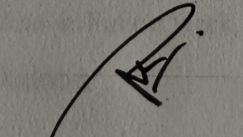
**CERTIFICATE**

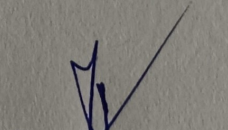
This is to certify that the Project Stage II entitled “**IOT BASED SMART AGRICULTURE / GARDENING**” is Bonafide work carried out by following students

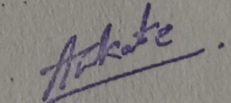
- |                              |            |
|------------------------------|------------|
| 1. Shivani Rajendra Bhongale | B190533005 |
| 2. Tanmay Vilas Pawar        | B190533052 |
| 3. Ajay Ashok Thorat         | B190533071 |

In partial fulfilment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-24. It is certified that the project stage II report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

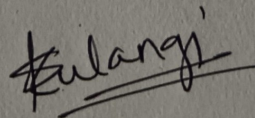
  
Prof. C. V. Patil  
Guide

  
Prof. P. A. More  
Coordinator

  
Dr. V. A. Mane  
HOD

  
Dr. A. M. Kate  
Principle



  
External Examiner

# ZEAL COLLEGE OF ENGINEERING AND RESEARCH

NARHE, PUNE - 411041

## DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING



### CERTIFICATE

Certified that the project work entitled "SMART PARKING SYSTEM using IoT" carried out by

- |                             |                          |
|-----------------------------|--------------------------|
| 1. GUPTA ABHISHEK PREMKUMAR | Exam Seat No: B190533023 |
| 2. SINGH ABHISHEK MITHILESH | Exam Seat No: B190533066 |
| 3. KAMBLE CHIKAYYA RUDRAPPA | Exam Seat No: B190533108 |

Bonafide students of ZCOER, in partial fulfillment for the award of **Bachelor of Engineering** in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year **2023-2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

**Dr. Himanshu Chaurasiya**

**Professor**

**Dept. of E&TC, ZCOER**

**Dr. V. A. Mane**

**HOD**

**Dept. of E&TC, ZCOER**

**Prof. Prajкта More**

**Project I/C**

**Dept. of E&TC, ZCOER**





**ZEAL COLLEGE OF ENGINEERING AND RESEARCH**

NARHE, PUNE - 411041

**DEPARTMENT OF  
ELECTRONICS AND TELECOMMUNICATION ENGINEERING**



**CERTIFICATE**

Certified that the project work entitled "**Electronic Voting Machine**" carried out by **Mr. Vishwanath Jadhav (B1905330)**, **Miss. Rutuja Patil (B190533055)** and **Mr. Vishal Gupta (B1905330)** Bonafide students of ZCOER, in partial fulfilment for the award of **Bachelor of Engineering** in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year **2023-2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

**Prof. Ganesh Kadam**

**Guide**

**Prof. P.A. More**

**Co Ordinator**

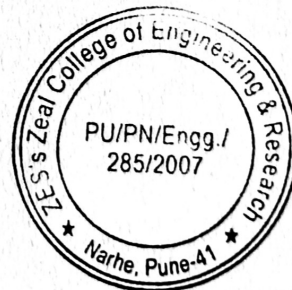
**Dr. V.A. Mane**

**HOD**

**Dr. A.M. Kate**

**Principal**

External :-



**Zeal Education Society's**  
**Zeal College of Engineering & Research, Narhe,**  
**Pune – 411041**



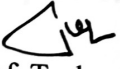
**Department of Electronics & Telecommunication Engineering**


**CERTIFICATE**

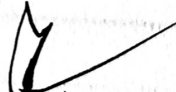
This is to certify that the Project Stage II entitled “**Design & Implementation of Advanced Security Based System for ATM**” is bonafide work carried out by following students

<b>Manohar Vijay Chavan</b>	<b>B190533010</b>
<b>Shrikant Sheshrao Chavhan</b>	<b>B190533011</b>
<b>Jay Vilas Jadhav</b>	<b>B190533027</b>

carried out under the supervision of **Prof. Tushar Mohite** and it is approved for the partial fulfilment of the requirement of **Savitribai Phule Pune University**, for the award of the degree of **Bachelor of Engineering in Electronics & Telecommunication**.

  
Prof. Tushar Mohite  
Guide

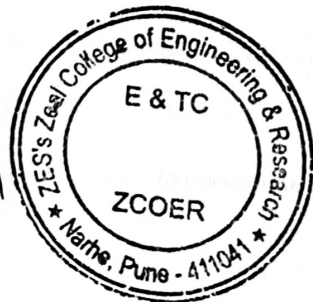
  
Prof. P. A. More  
Co-ordinator


  
Dr. V. A. Mane  
Head of Department

Dr. A. M. Kate  
Principal

Place: Pune

Date: 29/05/2024



  
External Examiner

**Zeal Education Society's**  
**Zeal College of Engineering & Research, Narhe,**  
**Pune-411 041**



**Department of Electronics and Telecommunication  
Engineering**


**CERTIFICATE**


This is to certify that the project stage II entitled “**AUTOMATED REAL TIME TRAFFIC CONTROL SYSTEM**” is Bona-fide work carried out by following students


<b>1.Dnyanesh Mahajan</b>	<b>[B311034]</b>
<b>2. Vaishnavi Patil</b>	<b>[B311045]</b>
<b>3.Raj Chauhan</b>	<b>[B311003]</b>

In partial fulfillment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-2024. It is certified that the project stage II report has been approved as it satisfies the academic requirements respect to project stage I work prescribed for the Bachelor of Engineering Degree.

  
Dr. Shaveta Thakral  
Guide

  
Prof. P. A. More  
Coordinator

  
Dr. V. A. Mane  
HOD

  
Dr. A. M. Kate  
Principal





Zeal Education Society's  
Zeal College of Engineering & Research, Narhe,  
Pune-411 041



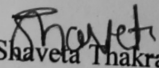
Department of Electronics and Telecommunication  
Engineering

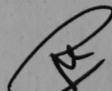
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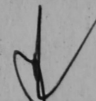
This is to certify that the project stage II entitled "SMART AI BLIND STICK" is Bona-fide work carried out by following students

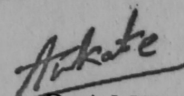
1.Soumitra Wartikar	[B311070]
2.Pratyush Sharma	[B311050]
3.Siddesh Pawar	[B311047]

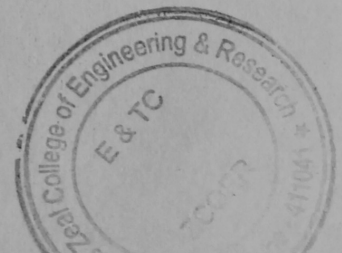
In partial fulfilment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-24. It is certified that the project stage II report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
Dr. Shaveta Thakral  
Guide

  
Prof. P.A. More  
Coordinator

  
Dr. V.A. Mane  
HOD

  
Dr. A.M. Kate  
Principal





Zeal Education Society's  
Zeal College of Engineering & Research, Narhe,  
Pune-411 041



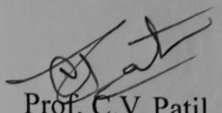
Department of Electronics and Telecommunication Engineering

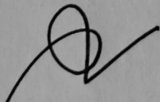
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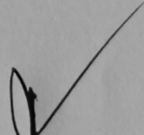
This is to certify that the Project Stage II entitled “**Accident Prevention & Detection of Roadways**” is bonafide work carried out by following students

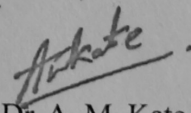
1. Siya Anand Kakani	[B311021]
2. Neha Santaram Londhe	[B311033]
3. Mahesh Subhash Kadam	[B311020]

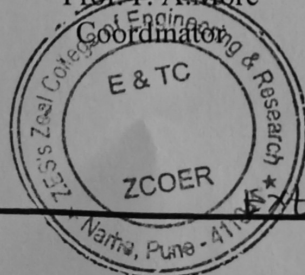
In partial fulfilment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-24. It is certified that the project stage II report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

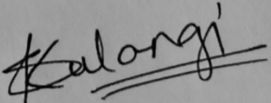
  
Prof. C.V. Patil  
Guide

  
Prof. P.A. More  
Coordinator

  
Dr. V.A. Mane  
HOD

  
Dr. A.M. Kate  
Principal



  
External Examiner



Zeal Education Society's

Zeal College of Engineering and Research, Narhe,  
Pune-411041  
(SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE)




DEPARTMENT OF  
ELECTRONICS AND TELECOMMUNICATION ENGINEERING  
CERTIFICATE

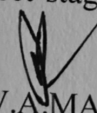
This is to certify that project stage II entitled "IoT - BASED AUTOMATION OF  
POWERLOOMS IN TEXTILE"  
INDUSTRIES" is bonafide work carried out by the following students,

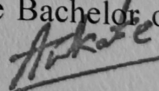
- 1) Shelar Sakshi
- 2) Sutar Aniket
- 3) Yadav Vinit

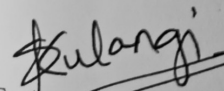
Exam Seat No. B190533059  
Exam Seat No. B190533141  
Exam Seat No. B190533078

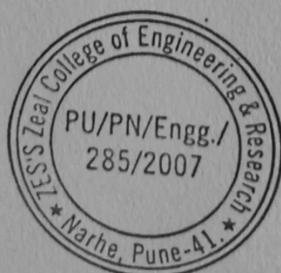
In partial fulfillment for the award degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-2024. It is certified that the project stage II report has been approved as it satisfies the academic requirements with respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
Prof. P. A. Khade  
Guide

  
Dr. V.A. MANE  
Head of the Department

  
Dr. AJIT.M.KATE  
Principal

  
External Examiner





Zeal Education Society's  
Zeal College of Engineering & Research,  
Narhe, Pune-411041





Department of Electronics and Telecommunication Engineering  
**CERTIFICATE**

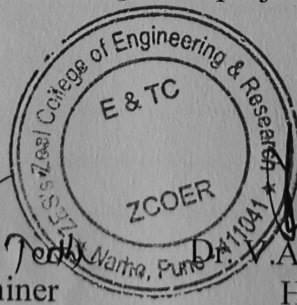
This is to certify that the project entitled "*Campus Parking Availability System*"  
is bonafide work carried out by following students

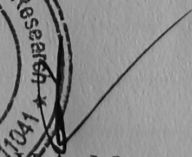
1. Mayuri Khalase	Roll No. B311025
2. Khushi Kulkarni	Roll No. B311026
3. Prathamesh Naik	Roll No. B311037
4. Sanket Shinde	Roll No. B311054

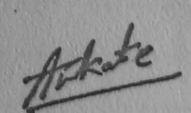
In partial fulfillment for the Fourth Year of Engineering in Electronics and Telecommunication of the Savitribai Phule Pune University, Pune during the academic year 2023-24. It is certified that the project report has been approved as it satisfies the academic requirements respect to project work prescribed for Fourth Year of Engineering.

  
Prof. P.A. More  
Guide

  
Prof. (P.B.) Jadhav  
Examiner



  
V.A. Mane  
HOD

  
Dr. A.M. Kate  
Principal

**Zeal Education Society's  
Zeal College of Engineering & Research, Narhe,  
Pune – 411041**



**Department of Electronics & Telecommunication Engineering**

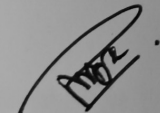
**CERTIFICATE**

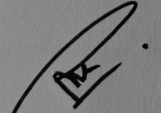
This is to certify that the Project Stage II entitled “**Surveillance Robot Using Remote Control**” is bonafide work carried out by following students


**Rohit Jotiram Gurav**  
**Sakshi Santosh Gund**  
**Sakshi Sunil Veer**

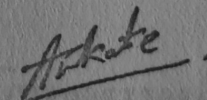
**B190533025**  
**B190533056**  
**B190533073**

carried out under the supervision of **Prof. P. A. More** and it is approved for the partial fulfilment of the requirement of **Savitribai Phule Pune University**, for the award of the degree of **Bachelor of Engineering in Electronics & Telecommunication**.

  
Prof. P. A. More  
Project Guide


  
Prof. P. A. More  
Project Coordinator

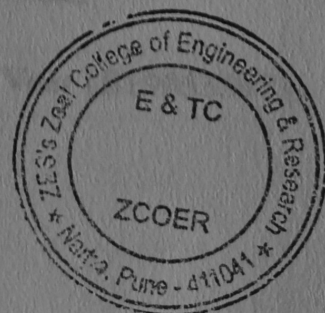
  
Dr. V. A. Mane  
Head of Department

  
Dr. A. M. Kate  
Principal

Place: Pune

Date: 29/05/2024

  
External Examiner



Zeal Education Society's  
Zeal College of Engineering & Research, Narhe,  
Pune-411 041



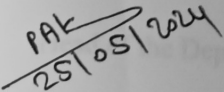
**Department of Electronics and Telecommunication Engineering**

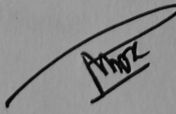
**CERTIFICATE**


This is to certify that the project stage I entitled **"IOT Based Health Monitoring System"** is bonafide work carried out by following students

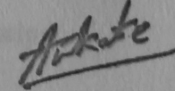
1. Avinash Vinayak Gaikwad	[B311010]
2. Gourav Prakash Kore	[B311028]
3. Abhay Madan Patil	[B311041]

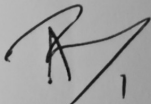
In partial fulfillment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, Pune during the year 2023-24. It is certified that the project stage II report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
Prof. Prashant Khade  
Guide

  
Prof. P. A. More  
Coordinator

  
Dr. V. A. Mane  
HOD

  
Dr. A. M. Kate  
Principal



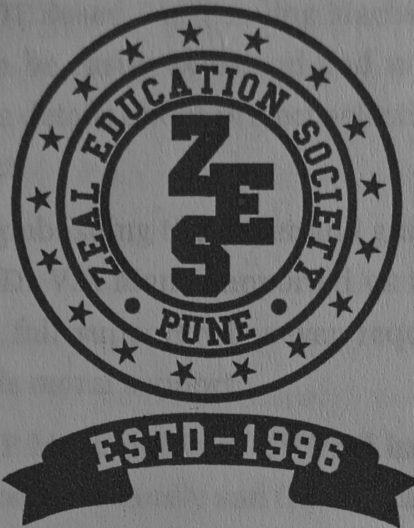




Zeal Education Society

Zeal College of Engineering & Research, Narhe

Pune - 411 041



DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION


ENGINEERING

## Certificate

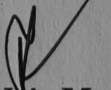
This is to certify that the project entitled "**IOT Based Pen Vending Machine**" is bonafide work carried out by following students.

- |                             |                     |
|-----------------------------|---------------------|
| 1. Kumar Shraddha Rupesh    | Seat No.B190533064  |
| 2. Prasad Aman Tilakdhari   | Seat No. B190533001 |
| 3. Shriram Keshav Balasaheb | Seat No. B190533065 |

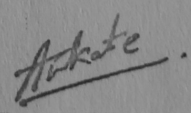
In partial fulfilment for the award of degree of Bachelor of Engineering in Electronics and Telecommunication Engineering of the Savitribai Phule Pune University, during the year <sup>23-24</sup>~~2017-18~~. It is certified that the Dissertation report has been approved as it satisfies the academic requirements respect to project stage II work prescribed for the Bachelor of Engineering Degree.

  
Dr V.A. Mane

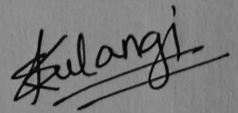
Project Guide

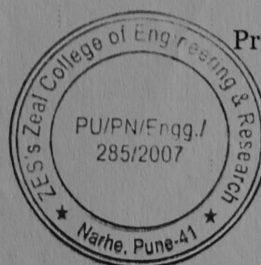
  
Dr V.A. Mane

Head of Department

  
Dr A. M. Kate

Principal

External: 



# RAJVEER TEXTILE INDUSTRIES

13/431-1,  
Behind Mathura Highschool,  
Ichalkaranji - 416115.  
Dist: - Kolhapur (M. S.).  
Mob:-9764972261

Date: - 11-03-2024

Ref:MADTEX/FIN/2023-24/108

To,

The Head of Department /Program,

Department of E & TC Engineering

Zeal College of Engineering and Research Center,

Narhe, Pune 411041.

This is Certify that Ms.Sakshi Anand Shelar (Roll No:B311051),Mr.Aniket Narayan Sutar(Roll No: B311061) and Vinit Vitthal Yadav (Roll No: B311072) ,final year student of BE in Electronics and Telecommunication Engineering of Zeal collage of Engineering and Research Center pune have successfully completed their project work as per our expected solutions and up to marks,in our firm on problem "IOT BASED AUTOMATION OF POWER LOOM IN TEXTILE INDISTRIES " towards the partial fulfilment of the award of BE during the period of July 2023 to April 2024 .( with reference to request letter Ref: ZES/Ne/2146 and request letter conformation Ref:/MADTEX/FIN/2023-24/108).

As per mention terms and condition we will support all for demonstration of project examination of the course. during the internship programmewith us he has found punctual, hardworking and inquisitive.

We are appreciating your great efforts to bridge the gap between industry and institute by promoting and encouraging the students to work industry problems. We looking forward to maintain the relationship with us by helping each other as and when required.

We wish best of luck for his bright future.

With best Regards,

Manager  
RAJVEER TEXTILE

  
PROPRIETOR





**ZEAL**  
**ELECTROMECH**



Survey.No. 27/1,  
Malhari Bhosale Industrial Estate,  
Narhe-Dhayari Road,  
Pune - 411041  
Maharashtra, India.



contact@zealelectromech.com  
www.zealelectromech.com



+91 735 000 3513  
+91 774 499 3833

## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe , Pune -41 . India

**Date:** 29/02/2024

Dear Mrs. Gauri Santosh Kulkarni .

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited , effective 21/01/2024. All of us at Zeal Electromech are excited that you will be joining our team.

As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited



# *Certificate*

## — of Internship —

This Certificate is Presented to

***Vaishnavi Patil***

for successfully completing the internship  
project through **Data Analytics**

from 02<sup>nd</sup> Dec 2023 to 02<sup>nd</sup> Mar 2024

Code: AIV/23-24/Q1/02/7756

04<sup>th</sup> Mar 2024

**Date**

A handwritten signature in green ink, appearing to read 'C. S. ...'.

**Program Director**





# Certificate of Training

This Certifies that

**Borude Akash Dnyandeo**

Has completed the Industrial training from

**15.12.23 to 15.01.24**

And is Awarded this Certificate By

**Prompt Engineering**

**Date:16.01.24**

Authorized Signatures

A circular blue ink stamp is positioned over a handwritten signature in blue ink. The stamp contains the text "Prompt Engineering Technical Solutions" around the top inner edge, "CHAKAN" in the center, and "Prompt Engineering" around the bottom inner edge. There are two small stars on either side of the word "CHAKAN".





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Maharashtra, India.



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www.zealelectromech.com



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## Internship Offer Letter

### Zeal Electromech Private Limited

ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe , Pune -41 . India

**Date:** 29/02/2024

Dear Mr. Atharv Baban Barge.

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited , effective 21/01/2024. All of us at Zeal Electromech are excited that you will be joining our team.

As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited



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## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe, Pune -41, India

**Date:** 29/02/2024

Dear Mr / Mrs. Pranav Sharad Sirsat .

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited, effective 21/01/2024. All of us at Zeal Electromech are excited that you will be joining our team.

As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited





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Maharashtra, India.



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## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe, Pune -41, India

**Date:** 29/02/2024

Dear Mrs. Rutuja Nanasaheb Shinde,

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited, effective **02/01/2024**. All of us at Zeal Electromech are excited that you will be joining our team.

As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

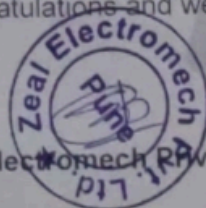
This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,

HR – Zeal Electromech Private Limited







Aug 21, 2021

Rutuja Nanasaheb Shinde

has successfully completed

Python Functions, Files, and Dictionaries

an online non-credit course authorized by University of Michigan and offered through Coursera

Handwritten signatures of Paul Resnick, Stephen Oney, and Jaclyn Cohen in black ink.

Paul Resnick  
Stephen Oney  
Jaclyn Cohen

COURSE  
CERTIFICATE



Verify at [coursera.org/verify/8PWR5UG9LGSM](https://coursera.org/verify/8PWR5UG9LGSM)  
Coursera has confirmed the identity of this individual and their participation in the course.

# CERTIFICATE OF INTERNSHIP

This internship program certificate is proudly  
awarded to

**Niranjan Kale**

For his outstanding completion of the internship program at  
SRS Engineers from December to February 2024.

CEO  
Sarthakshirke





**ZEAL**  
**ELECTROMECH**



Survey.No. 27/1,  
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Pune - 411041  
Maharashtra, India.



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www.zealelectromech.com



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## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe , Pune -41 . India

**Date:** 29/02/2024

Dear Mr. Dnyaneshwar Rajkumar Suwarnkar.

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited , effective **2011/2024** All of us at Zeal Electromech are excited that you will be joining our team.

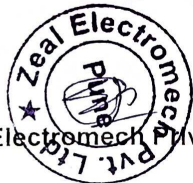
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This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited





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## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe , Pune -41 . India

**Date:** 29/02/2024

Dear Mr. Yash Yogesh Bhagat.

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited , effective 21/01/2024 . All of us at Zeal Electromech are excited that you will be joining our team.

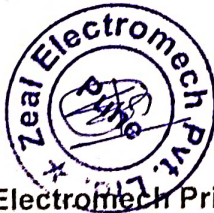
As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

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**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited



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## Internship Offer Letter

### Zeal Electromech Private Limited

ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe , Pune -41 . India

**Date:** 29/02/2024

Dear Mrs. Sanika Dattatray Shinde.

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited , effective 02/01/2024. All of us at Zeal Electromech are excited that you will be joining our team.

As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited



# Completion of Internship


This Certificate is Awarded to

**DHANSHRI KENJALE**

has successfully completed the 1 month Internship in  
**Web Development** Internship at **SystemTron** from  
**12-Feb-2024 to 10-Mar-2024.**



**SYSTEM TRON**  
**CID :ST/INP/3220**

  
**Co-Founder**  
**System Tron**



# Completion of Internship


This Certificate is Awarded to



SYSTEM TRON  
CID :ST/INP/2540

## DHANSHRI JANARDAN KENJALE

has successfully completed the 1 month Internship in **C++**  
**Programming** Internship at **SystemTron** from  
**15-JAN-2024 to 11-FEB-2024.**

  
**Co-Founder**  
**System Tron**







Microdynamic  
Software

# Certificate of Internship

This is to certify that Mr./Ms. Yash Sandip Bomble in appreciation for your  
successful work as an intern at Microdynamic Software private Limited  
From 15 Jan 2024 To 16 Feb 2024 as a Web developer.  
Microdynamic Software Pvt. Ltd.

Microdynamic Software Pvt. Ltd.  
103, Vittal Complex, Bhumkar Nagar,  
Narhe, Pune-411 041.

(Authorized Signatory)

Director

Place: Narhe, Pune







**ZEAL**  
**ELECTROMECH**



Survey No. 27/1,  
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## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe, Pune -41, India

**Date:** 29/02/2024

Dear Mr. Mayur Maruti Kamble.

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited, effective 21/01/2024. All of us at Zeal Electromech are excited that you will be joining our team.

As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited





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## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe , Pune -41 . India

**Date:** 29/02/2024

Dear Mr. Yash Rajiv More.

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited , effective 02/01/2024. All of us at Zeal Electromech are excited that you will be joining our team.

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**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited





**ZEAL**  
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## Internship Offer Letter

### Zeal Electromech Private Limited

ESDM Units,

Address: Malhari Bhosale Industrial Estate,  
Narhe, Pune -41, India

Date: 29/02/2024

Dear Mr. Avishkar Bhagawat Chavan.

We would like to congratulate you on being selected for the **Electronic Project Internship** position with Zeal Electromech Private Limited, effective 21/01/2024. All of us at Zeal Electromech are excited that you will be joining our team.

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**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,



HR – Zeal Electromech Private Limited

Date: 17-Jul-2023

## Internship Offer Letter

Dear, **Keshav B. Shriram,**

On behalf of Anvistar ITS Pvt. Ltd. We are excited to offer to you for an internship position. This position is located in Pune, Maharashtra. The position is for Training & Internship as a Java Developer.

This position is scheduled to begin 18-July-2023 and will be for six month unpaid training & internship opportunity. Please be sure to bring Adhaar Card, Mark sheet, ID proof, with you on your first day to complete your profile.

During your temporary employment with Anvistar ITS Pvt. Ltd, you may have access to trade secrets and confidential or proprietary business information belonging to Anvistar ITS Pvt. Ltd. By accepting this offer, you acknowledge that this information must remain confidential and agree to refrain from using it for your own purposes or disclosing it to anyone outside. Also, you agree that upon completion of your internship, you will promptly return any company-issued property and equipment along with information and documents belonging to the company. By accepting this offer, you acknowledge that you understand participation in this program is not an offer of employment, and successful completion of the program does not entitle you to an employment offer from Anvistar ITS Pvt. Ltd.

We look forward to having you begin your career at Anvistar ITS Pvt. Ltd and wish you a successful training & internship.

Sincerely,



Amit Khojare  
(Director)



Yogita Tehare  
( Director )





@internPE

## COMPLETION CERTIFICATE

**CID : IPI#3036**

To whomever it may concern

This is to certify that **Khushi Rajesh Kulkarni** worked as a Intern in our company from **20-Mar-2023 to 16-Apr-2023**

Please find the internship details below:

**Company Name:** InternPe

**Location:** Remote

**Domain:** JAVA Programming

**Designation:** Intern

During their working period, we found him/her to be a sincere and dedicated intern with a professional attitude and very good knowledge of the job.

We thank him/her for their efforts and contribution and wish him/her the best in future endeavors.

Yours Sincerely

**(Co-Founder)**  
**InternPe**



**MSME**  
MICRO, SMALL & MEDIUM ENTERPRISES  
सूक्ष्म, लघु एवं मध्यम उद्यम



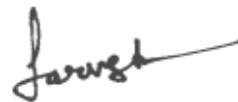
# Certificate of Training

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**Sanjivani Sanjay Pawar**

has successfully completed a 6-week online training on **Data Science**. The training consisted of Introduction to Data Science, Python for Data Science, Understanding the Statistics for Data Science, Predictive Modeling and Basics of Machine Learning, and The Final Project modules.

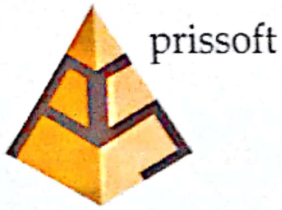
We wish Sanjivani Pawar all the best for future endeavours.

A handwritten signature in black ink, appearing to read "Sarvesh".

**Sarvesh Agarwal**  
FOUNDER & CEO, INTERNSHALA

Date of certification: 2023-12-03 Certificate no. : FBB40FCE-3EE2-CD29-A06E-514289FD3E8A

For certificate authentication, please visit [https://trainings.internshala.com/verify\\_certificate](https://trainings.internshala.com/verify_certificate)



prissoft

# PRISMATIC SOFTWARES PRIVATE LIMITED

## CERTIFICATE

TO WHOMSOEVER IT MAY BE CONCERNED

DATE: 24/11/2023.

This is to certify that Soumitra Wartikar, student of the Fourth year of Engineering (Electronics & Telecommunication) from Zeal College of Engineering & Research, Pune, affiliated to Pune University, has successfully completed his assigned project work at 'Prismatic Softwares Private Limited' from 21<sup>st</sup> August 2023 to 24<sup>th</sup> November, 2023.

During the above period, he was placed as an intern and worked with our development team on Web development using Python, Flask, MySQL, ORM and SQLALchemy.

The candidate was found to be enthusiastic and curious during the internship. His performance was very good during this period.



Sr.HR Officer

Prismatic Softwares Private Limited





# INTERNSHIP COMPLETION CERTIFICATE

*OFFICIAL INTERNSHIP PARTNER:*



*PROUDLY PRESENTED TO:*

**SAHIL GANESH SHINDE**

has successfully completed 2 months Internship from 01/10/2023 to 30/11/2023 in Web Development at YHills.

Certificate ID : YHI-5006535

17/12/2023

DATE



AMAN KUMAR, CO-FOUNDER



Date: 13<sup>th</sup> February 2024

**INTERNSHIP CERTIFICATE**

This is to certify that **Mr. Shubham Sanjay Nanaware** successfully completed his

Industrial training in **JAVA** in **JavabyKiran**

As

**Trainee developer**

1<sup>st</sup> August 2023 To 1<sup>st</sup> February 2024

During this training he worked on web application

***Inventory Analyzer***

Under the guidance of

**Kiran D.**

In this period it was found that he is technically sound, sincere and hard working with steep learning curve.

Yours

Sincerely



SIGNATURE



**ZEAL**  
**ELECTROMECH**



Survey.No. 27/1,  
Malhari Bhosale Industrial Estate,  
Narhe-Dhayari Road,  
Pune - 411041  
Maharashtra, India.



contact@zealelectromech.com  
www.zealelectromech.com



+91 735 000 3513  
+91 774 499 3833

## Internship Offer Letter

**Zeal Electromech Private Limited**  
ESDM Units,

**Address:** Malhari Bhosale Industrial Estate,  
Narhe , Pune -41 . India

**Date:** 29/02/2024

Dear Mrs. Shruti Sachin Jadhav.

We would like to congratulate you on being selected for the **Electronic Project** Internship position with Zeal Electromech Private Limited , effective **27/01/2024** All of us at Zeal Electromech are excited that you will be joining our team.

As we discussed during the interview process, this is a non-paid 60 hours' academic internship during which you will be expected to provide **sufficient time** for learning and practice.

This internship is viewed by Zeal Electromech as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class.

**Topics Covered :** SMT Techniques, Component Identification, Soldering methods, 5S & Kaizen process, Printed Circuit Board Assembly basics.

Again, congratulations and we look forward to working with you this year.

Sincerely,

HR – Zeal Electromech Private Limited







# CERTIFICATE OF INTERNSHIP

This Certificate Is Proudly Presented To

**Surabhi Mhamane**

For Successfully Completing An Internship On

**Web Development**

From **23/12/2023** To **22/01/2024** At TechnoHacks EduTech.

During This Internship, We Found Him/Her Consistent And Hardworking. We Wish All The Best For Future Endeavors.

**Sandip Gavit**  
Founder



**24/01/2024**

Date





# Certificate of Training

This Certifies that

**Dhakne Vaishnavi Shivaji**

Has completed the Industrial training from

**15.12.23 to 15.01.24**

And is Awarded this Certificate By

**Prompt Engineering**

**Date:16.01.24**



\_\_\_\_\_  
Authorized Signatures