

# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**on**

**"MILK QUALITY ANALYZER"**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>A BHARATH</b>	<b>1MV20EE001</b>
<b>CHAITHRA K M</b>	<b>1MV20EE017</b>
<b>D S ANIL KUMAR</b>	<b>1MV20EE021</b>
<b>G SOMANATHA REDDY</b>	<b>1MV20EE029</b>

Under the Guidance of

**Dr R SIVAPRIYAN,**  
Associate Professor  
Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE New Delhi, Accredited by NAAC and NBA)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE New Delhi, Accredited by NAAC and NBA)


Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the project work entitled "MILK QUALITY ANALYZER" carried out by A BHARATH (IMV20EE001), CHAITHIRA K M (IMV20EE017), D S ANILKUMAR (IMV20EE021), G SOMANATHIA REDDY (IMV20EE029) a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. R Sivapriyan

  
Signature of HOD  
Dr. Suresh H J  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsuramahalalli  
(Via) Yalahanka, Bengaluru - 562 157


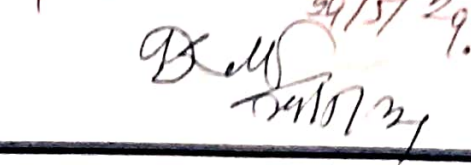
  
Signature of PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsuramahalalli  
International Airport Road, Bangalore-562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. R. SIVAPRIYAN
2. HD RATHMAN

  
29/11/24  
  
29/11/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Project Report**

On

## **"E-LEARNING APPLICATION"**

Submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**GANGARAJU R  
HARSHITHA B P  
NIKHIL G  
SHEETHAL C**

**1MV20EE028  
1MV20EE032  
1MV21EE421  
1MV21EE439**

Under the Guidance of

**Dr. R Sivapriyan,  
Associate Professor  
Sir M.VIT, Bengaluru.**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the Project work entitled “E-LEARNING APPLICATION” carried out by GANGARAJU R (1MV20EE028), HARSHITHA B P (1MV20EE032), NIKHIL G (1MV21EE421), SHEETHAL C (1MV21EE439), a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. R Sivapriyan

  
Signature of HOD  
Dr. Suresh H  
PROF. & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G


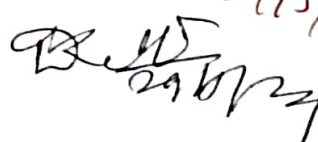
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. R. SIVAPRIYAN
2. AD KETHANANI

  
29/5/24  
  
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**on**

## **"DESIGN AND IMPLEMENTATION OF SMART ELECTRIC POLE FOR CHARGING ELECTRIC VEHICLES"**

**submitted in partial fulfillment of the requirements for the award of the Degree of**

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

**Submitted by**

<b>ANJANA K M</b>	<b>1MV20EE009</b>
<b>CHAITHRA R</b>	<b>1MV20EE018</b>
<b>H KEERTANA</b>	<b>1MV20EE030</b>
<b>KUSUMA</b>	<b>1MV20EE037</b>

**Under the Guidance of**

**Mrs. P Sumalatha**

**Assistant professor**

**Department of Electrical and Electronics Engineering**

**Sir M.VIT, Bengaluru**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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## Department of Electrical & Electronics Engineering



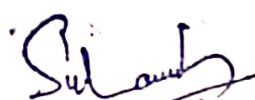
### CERTIFICATE

Certified that the project work entitled "DESIGN AND IMPLEMENTATION OF SMART ELECTRIC POLE FOR CHARGING ELECTRIC VEHICLES" carried out by Ms. ANJANA K M (1MV20EE009), Ms. CHAITHRA R (1MV20EE018), Ms. H KEERTANA (1MV20EE030), Ms. KUSUMA (1MV20EE037) a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Department of Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work report prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. P Sumalatha

  
Signature of HOD  
Dr. Suresh H.L.

PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Off International Airport Road, Hunsamaranahalli  
Bengaluru, Bengaluru - 562 157


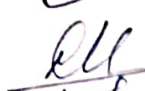
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S.G.

### INTERNAL VIVA

Name of Examiners

1. Dr. Suresh. H.L.
2. Nagaraj D.C

Signature with Date

 27/5/24  
 27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangma", Belagavi-590 018**



**Project Report**

**on**

**"IMPLEMENTATION OF HYBRID SOLAR AND WIND TURBINE USING IoT"**

**submitted in partial fulfilment of the requirements for the award of the degree of**

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

**Submitted by**

<b>DISHA A PATIL</b>	<b>1MV20EE024</b>
<b>DRUTHI N</b>	<b>1MV20EE026</b>
<b>K VAMSHI KRISHNA</b>	<b>1MV20EE033</b>
<b>KETAN N BABA</b>	<b>1MV20EE035</b>

**Under the Guidance of**

**DR. C.V. MOHAN**

**Associate Professor,**

**Department of Electrical & Electronics Engineering,**

**Sir M.VIT, Bengaluru.**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023– 2024**



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Department of Electrical & Electronics Engineering



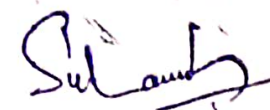
## CERTIFICATE

Certified that the project work entitled "IMPLEMENTATION OF HYBRID SOLAR AND WIND TURBINE USING IoT" carried out by Ms. Disha A Patil-1MV20EE024, Ms. Druthi N-1MV20EE026, Mr. K Vamshi Krishna-1MV20EE033, Mr. Ketan N Baba-1MV20EE035 Bonafide students of Sir M. Visvesvaraya Institute of Technology, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above- mentioned degree.

  
Signature of Guide  
Dr. C.V. Mohan

  
Signature of HOD  
Dr. Suresh H.L.

PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanehalli  
(Via) Yelahanka, Bengaluru - 562 157


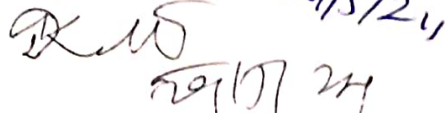
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanehalli  
(Via) Yelahanka, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S.G.

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. R. SIVAPRIYAN
2. HO Kethamani

  
24/5/24  
  
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangma", Belagavi-590 018**



## **Project Report on "RFID-BASED SMART PETROL PUMP"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**Amruth kumar N  
Ashoka K M  
Chethan kumar S  
Sachin s karagi**

**1MV21EE402  
1MV21EE403  
1MV21EE408  
1MV21EE432**

**Under the Guidance of  
Mrs. VIJAYALAKSHMI A.K**

**Assistant Professor  
Department of Electrical & Electronics Engineering  
Sir M.VIT, Bengaluru.**



**Department of Electrical & Electronics Engineering  
Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023– 2024**



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Department of Electrical & Electronics Engineering

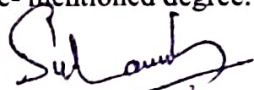


## CERTIFICATE

Certified that the project work entitled “RFID-BASED SMART PETROL PUMP” carried out by Mr. Amruth kumar N (1MV21EE402), Mr. Ashoka K M (1MV21EE403), Mr. Chethan kumar S (1MV21EE408), Mr. Sachin s karagi (1MV21EE432), Bonafide students of Sir M. Visvesvaraya Institute of Technology, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Vijayalakshmi A K

  
Signature of HOD  
Dr. Suresh H L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G


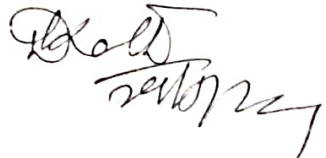
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners

1. R. SIVAPRIYAN
2. HD Kethan

Signature with Date

 29/05/24  




# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Project Report**

**On**

**"SMART AGRICULTURAL MONITORING SYSTEM USING IOT"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**Mr. AMARANATH S**

**Ms. M V TEJASRI**

**Ms. NAVYA D**

**Mr. RITHESHKUMAR**

**1MV21EE401**

**1MV21EE419**

**1MV21EE420**

**1MV21EE430**

Under the Guidance of

**Mr. V RAJESH KUMAR**

Assistant Professor,

Sir M.VIT, Bengaluru



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

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**2023 – 2024**




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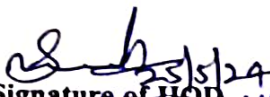
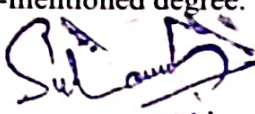
Department of Electrical & Electronics Engineering



**CERTIFICATE**

Certified that the Project work entitled "SMART AGRICULTURAL MONITORING SYSTEM USING IOT" carried out by Mr. AMARNATH S (1MV21EE401), Ms. M V TEJASRI (1MV21EE419), Ms. NAVYA D (1MV21EE419), Mr. RITHESHKUMAR (1MV21EE430), a bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. V Rajesh Kumar

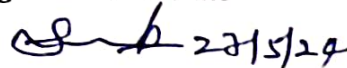

  
Signature of HOD  
Dr. Suresh H.L.  
PRINCIPAL  
  
Signature of Principal  
Prof. Rakesh S.G.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
(Via) Yalahanka, Bengaluru - 562157

**EXTERNAL VIVA**

Name of Examiners

Signature with Date

1. Dr. Suresh. H.L.
2. Nagaraj D.C

  
27/5/24  
  
27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**on**

**"SMART SOLAR BICYCLE"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>NITEESH</b>	<b>(1MV20EE049)</b>
<b>RAKESH B R</b>	<b>(1MV20EE057)</b>
<b>SACHIN REDDY</b>	<b>(1MV20EE059)</b>
<b>SANGAMESH T</b>	<b>(1MV20EE060)</b>

Under the Guidance of

Mr. Pradeep Kumar  
Assistant Professor,  
Electrical & Electronics Engineering,  
SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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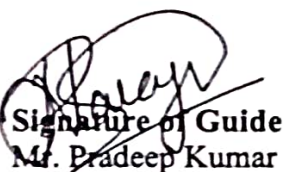
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

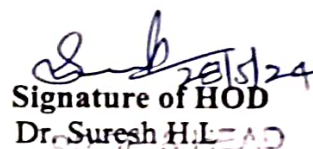
Department of Electrical & Electronics Engineering

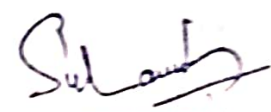


## CERTIFICATE

Certified that the project work entitled "SMART SOLAR BICYCLE" carried out by Mr. NITEESH (USN 1MV20EE049), Mr. RAKESH B R (USN 1MV20EE057), Mr. SACHIN REDDY (USN 1MV20EE059), Mr. SANGAMESH T (USN 1MV20EE060), bonafide students of Sir M. Visvesvaraya Institute Of Technology, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Pradeep Kumar

  
Signature of HOD  
Dr. Suresh H. LEAD

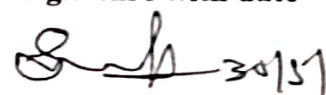
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Internal Assessment  
Signature of Principal  
Prof. Rakesh S G

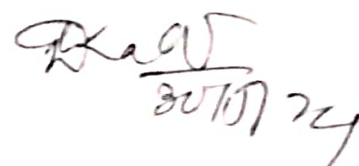
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Bengaluru - 562157  
**EXTERNAL VIVA**

Name of Examiners

1. Dr. JURETH H. H. L
2. HD Kothamani

Signature with date

 30/07/2024

 30/07/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Project Report**

on

### **"Simulation and Implementation of Dual Converter"**

submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**USHA M S**

**1MV20EE070**

**UTTAM AMBAPPA BHAVIMANI**

**1MV20EE072**

**V ROHITH**

**1MV20EE074**

**NIKHIL MAHESH PATIL**

**1MV21EE422**

Under the Guidance of

Mr. Kumaraswamy R

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**  
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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**Department of Electrical & Electronics Engineering**



# CERTIFICATE

Certified that the project work entitled “**Simulation and Implementation of Dual Converter**” carried out by **Ms. Usha M S - 1MV20EE070, Mr. Uttam ambappa bhavimani - 1MV20EE072, Mr. V Rohith - 1MV20EE074, Mr. Nikhil Mahesh patil - 1MV21EE422**, bonafide students of **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

20.2/28/5

**Signature Guide**  
Kumaraswamy R

**Signature of HOD**

DR. S. G. SINGH HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

INTERNAL YIVA-382 157

Sulau

PRINCIPAL

SIR M. Signature of Principal  
Krishna Prof. Rakesh S. G.  
International Airport Road, Bangalore-562 157  
MCC.

**Prof. Rakesh S. G.**  
International Airport Road, Bangalore-562 157

**Name of Examiners**

1. R. SIVAPRIYA An

2.

DD Kutyman

**Signature with Date**

R. Rao 26/05/24

2915722



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**on**

**"INTELLIGENT SPEED CONTROL FOR ELECTRIC VEHICLE"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**BHARATH MADIVALAR**

**1MV20EE015**

**CHANDU J**

**1MV20EE019**

**MANOJKUMAR L**

**1MV21EE415**

Under the Guidance of

**Dr. C V Mohan,**

Associate Professor,

Department of Electrical & Electronics Engineering,

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**




(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

Certified that the project work entitled "**Intelligent Speed Control For Electric Vehicle**" carried out by Mr. **BHARATH MADIVALAR**, USN: **1MV20EE015**, Mr. **CHANDU J**, USN: **1MV20EE019**, Mr. **MANOJKUMAR L**, USN: **1MV21EE415**, a bonafide students of Sir M. **VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

**Signature Guide**  
Dr. C V Mohan

  
Signature of HOD  
Dr. Suresh H L

Dr. Suresh H E  
**PROF. & HEAD**  
 DEPT. OF ELECTRICAL & ELECTRONICS ENGR.  
 SIR AL. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
 Krishnadevarayanagar, Hunsur, Mysore District  
 (Via) Yelachenai, Bangalore - 562 157

Schmidt

PRINCIPAL

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
Krishna Narayana Road, Bangalore-562 157  
**Signature of Principal**  
Dr. Rakesh S G

## EXTERNAL VIVA

**Name of Examiners**

1. R. SIVAPRIYA
2. ADARSH

**Signature with Date**

R. R. 24/5/24.  
D. W. 24/6/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**on**

**"MULTI FUNCTION AGRO MACHINE"**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**INDUMATHI K H - 1MV21EE409**

**PRATEEK D - 1MV21EE426**

**SARASWATI S S - 1MV21EE435**

**SUHAS R KARNAM - 1MV21EE445**

Under the Guidance of

**Dr. Mahesh K**

Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)


Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering

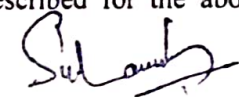


## CERTIFICATE

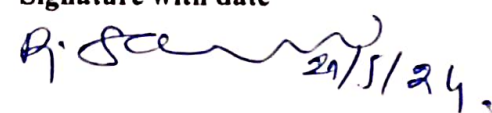

Certified that the project work entitled “MULTI FUNCTION AGRO MACHINE” carried out by Ms. Indumathi K H - 1MV21EE409, Mr. Prateek D - 1MV21EE426, Ms. Saraswati S S - 1MV21EE435, Mr. Suhas R Karnam - 1MV21EE445 bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Dr. Mahesh K.

  
Signature of HOD  
Dr. Suresh H. HEAD  
HEAD  
OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yalahanka, Bengaluru - 562 157

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S.G.

## EXTERNAL VIVA

Name of Examiners	Signature with date
1. R. SIVAPRIYAN	 29/5/24
2. HD Keltimani	 29/5/24





# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-591 001



**Project Report**

**on**

## **"OPTIMIZING WIND TURBINE SELECTION WITH ULTRASONIC ANEMOMETER WIND SPEED ANALYSIS"**

*submitted in partial fulfillment of the requirements for the award of the Degree of*

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

*Submitted by*

<b>MANU PATIL</b>	<b>1MV20EE041</b>
<b>PUNITH M R</b>	<b>1MV20EE054</b>
<b>SPOORTHY</b>	<b>1MV20EE067</b>
<b>VAIBHAVI D TANDEL</b>	<b>1MV20EE075</b>

*Under the Guidance of*

**Dr. Mahesh K**

**Professor**

**Department of Electrical & Electronics Engineering  
Sir M.VIT, Bengaluru.**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)**

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023 – 2024**



**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**


**Department of Electrical & Electronics Engineering**




**CERTIFICATE**

Certified that the project work entitled “OPTIMIZING WIND TURBINE SELECTION WITH ULTRASONIC ANEMOMETER WIND SPEED ANALYSIS” carried out by **Mr. MANU PATIL - 1MV20EE041, Mr. PUNITH M.R - 1MV20EE054, Ms. SPOORTHII - 1MV20EE067, Ms. VAIBHAVI D TANDEL - 1MV20EE075**, bonafide students of **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
**Signature Guide**  
**Dr. Mahesh K**


  
**Signature of HOD**  
**Dr. Suresh H.L.**  
DEPT. OF ELECTRICAL & ELECTRONICS ENG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarasanahalli  
(M2) Yashwantrao, Bengaluru - 562 157  
**INTERNAL VIVA**

  
**Signature of Principal**  
**Prof. Rakesh S.G.**  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarasanahalli  
International Airport Road, Bangalore-562 157

**Name of Examiners**

1. **R. SIVAKRISHNAN**
2. **HD Kalyanani**

**Signature with Date**

  
**R. SIVAKRISHNAN**  
**29/5/24**



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**on**

## **"DEVELOPMENT OF BATTERY MONITORING SYSTEM FOR ELECTRIC VEHICLE"**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>DHANUSH R</b>	<b>1MV20EE023</b>
<b>SHRIKANT SAJJAN</b>	<b>1MV20EE064</b>
<b>SMITA T PATIL</b>	<b>1MV20EE065</b>
<b>SRUJANA C R</b>	<b>1MV20EE068</b>

Under the Guidance of

Dr. Mahesh K

Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

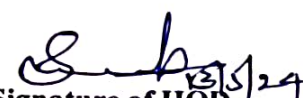
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the project work entitled “DEVELOPMENT OF BATTERY MONITORING SYSTEM FOR ELECTRIC VEHICLE” carried out by Mr. Dhanush R - 1MV20EE023, Mr. Shrikant Sajjan - 1MV20EE064, Ms. Smita T Patil - 1MV20EE065, Ms. Srujana C R - 1MV20EE068, bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Dr. Mahesh K


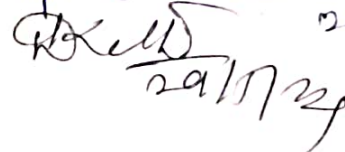
  
Signature of HOD  
Dr. Suresh H L  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Humnashanahalli  
(Via) Yelahanka, Bengaluru - 562 157  
INTERNAL VIVA

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Humnashanahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### Name of Examiners

1. R. SIVAPRIYAN
2. HD Kethman

### Signature with Date

  
  
29/5/23  
29/7/23



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report  
on**

## **"SIMULATION OF REGENERATIVE BRAKING FOR ELECTRIC VEHICLE"**

submitted in partial fulfillment of the requirements for the award of the Degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**Mr. LIKITH GOWDA H S  
Mr. MOHAMMED MAAZ  
Mr. SAQEEB PASHA  
Mr. SUDEEP PATIL**

**1MV21EE412  
1MV21EE416  
1MV21EE434  
1MV21EE444**

Under the Guidance of

**Ms. Bindiya Tyagi**  
Assistant Professor,  
Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering  
Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**


**Department of Electrical & Electronics Engineering**



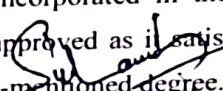
**CERTIFICATE**

Certified that the project work entitled “SIMULATION OF REGENERATIVE BRAKING FOR ELECTRIC VEHICLE” carried out by Mr. LIKITH GOWDA HS (1MV21EE412), Mr. MOHAMMED MAAZ (1MV21EE416), Mr. SAQEEB PASHA (1MV21EE434), Mr. SUDEEP PATIL (1MV21EE444), a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Ms. Bindiya Tyagi

  
Signature of HOD  
Dr. Suresh H.L.  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaranahalli  
(Off) Yelahanka, Bengaluru - 562 157

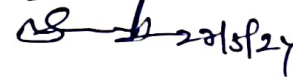
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S.G

**EXTERNAL VIVA**

Name of Examiners

1. Dr. Suresh. H.L
2. Nagaraj D.C

Signature with Date

  
27/5/24

  
27/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**Project Report**  
on  
**"SIMULATION AND IMPLEMENTATION OF SEPIC FED MULTILEVEL  
INVERTER"**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**DEEKSHA S**  
**DIVYA K S**  
**MADAN GOWDA H**  
**MALLAPPA**

**1MV20EE022**  
**1MV20EE025**  
**1MV20EE038**  
**1MV20EE039**

Under the Guidance of

**Mr. Kumara Swamy R**  
Assistant Professor  
SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157  
**2023 – 2024**



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Department of Electrical & Electronics Engineering



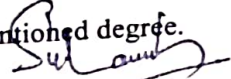
## CERTIFICATE

Certified that the project work entitled "*Simulation and implementation of Sepic fed multilevel inverter*" carried out by Ms. DEEKSHA S, USN 1MV20EE022, Ms. DIVYA K S, USN 1MV20EE025, Mr. MADAN GOWDA H, USN 1MV20EE038, Mr. MALLAPPA, USN 1MV20EE039, a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

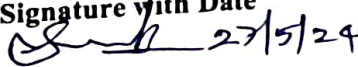
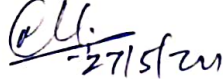
  
Signature Guide  
Mr. Kumara Swamy R

  
Signature of HOD  
Dr. H. B. Suresh

DEPT. OF ELECTRICAL & ELECTRONICS ENGGO.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Bengaluru - 562157  
**EXTERNAL VIVA**

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners  
1. Dr. Suresh. H-L  
2. Nagaraj D-C

Signature with Date  
 27/5/24  
 27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**On**

**"SMART AGRICULTURAL MONITORING SYSTEM USING IOT"**

**submitted in partial fulfillment of the requirements for the award of the degree of**

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

**Submitted by**

**Mr. AMARANATH S**

**Ms. M V TEJASRI**

**Ms. NAVYA D**

**Mr. RITHESHKUMAR**

**1MV21EE401**

**1MV21EE419**

**1MV21EE420**

**1MV21EE430**

**Under the Guidance of**

**Mr. V RAJESH KUMAR**

**Assistant Professor,  
Sir M.VIT, Bengaluru**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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**2023 – 2024**



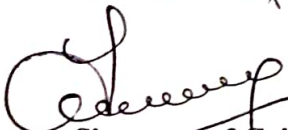
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering




**CERTIFICATE**

Certified that the Project work entitled "SMART AGRICULTURAL MONITORING SYSTEM USING IOT" carried out by Mr. AMARNATH S (1MV21EE401), Ms. M V TEJASRI (1MV21EE419), Ms. NAVYA D (1MV21EE419), Mr. RITHESHKUMAR (1MV21EE430), a bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. V Rajesh Kumar

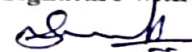

  
Signature of HOD  
Dr. SURESH  
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramangahalli  
(Via) Yelshanka, Bengaluru - 562 157  
EXTERNAL VIVA

  
PRINCIPAL  
Signature of Principal  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramangahalli  
(Via) Yelshanka, Bengaluru - 562 157

Name of Examiners

Signature with Date

1. Dr. Suresh. A-L.
2. Nagaraj D-C

 27/5/24  




# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



## **Project Report**

**On**

## **"AUTOMATED SEED SOWING AGRICULTURE ROBOT USING ARDUINO"**

submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

**IN**

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**Mr. KARTHIK K RATHOD**

**Mr. ABHISHEK D**

**Mr. BALAJI J C**

**Mr. MAHESH K S**

**1MV20EE034**

**1MV21EE400**

**1MV21EE405**

**1MV21EE414**

Under the Guidance of

**Dr. Suresh H L**

Professor & Head,  
SIRMVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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**2023 – 2024**



(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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Signature of Principal  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadasaraya Nagar, Hunsur, Mysore, Karnataka-562 157  
Signature of Principal  
Prof. Rakesh S. G.

1. R. SNAPRIYAN
2. HO KETIMANI

R. Ste 28705/21.  
R. Ste 28117/21



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**on**

## **"SMART POWER QUALITY MONITORING AND ELECTRICITY THEFT DETECTION SYSTEM USING IoT"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>MANJUNATH G C</b>	<b>(1MV20EE040)</b>
<b>NAGARJUNA M D</b>	<b>(1MV20EE047)</b>
<b>RAJATH D A</b>	<b>(1MV20EE056)</b>
<b>UMASHREE R K</b>	<b>(1MV20EE069)</b>

Under the Guidance of

Mr. BHASKAR C  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



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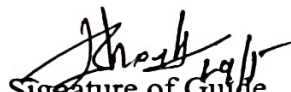
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering

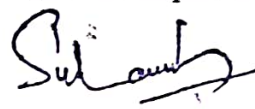


## CERTIFICATE

Certified that the project work entitled “Smart Power Quality Monitoring And Electricity Theft Detection System Using Iot” carried out by Mr. Manjunath G C (USN 1MV20EE040), Mr. Nagarjuna M D (USN 1MV20EE047), Mr. Rajath D A (USN 1MV20EE056), Ms. Umashree R K (USN 1MV20EE069), bonafide students of Sir M. Visvesvaraya Institute Of Technology, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

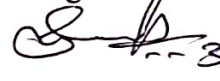
  
Signature of HOD  
Dr. Suresh H L  
HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarasanahalli  
(Via) Yelankota, Bengaluru - 562157


  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarasanahalli  
International Airport Road, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners

1. Dr - SURESH H - L
2. AD Kalyamani

Signature with date

  
30/5/24

  
30/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**On**

**"DESIGN OF A SIMPLE BATTERY PROTECTION SYSTEM"**

**Submitted in partial fulfillment of the requirements for the award of the degree of**

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

**Submitted by**

**ROOPESH N**

**1MV21EE431**

**SELVAN S**

**1MV21EE436**

**SHARATH KUMAR U**

**1MV21EE437**

**SRINATH KV**

**1MV21EE442**

**Under the Guidance of**

**Mrs. REKHA RADHAKRISHNAN**

**Assistant Professor,**

**Electrical & Electronics Engineering,**

**Sir M.VIT, Bengaluru.**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Project work entitled “DESIGN OF A SIMPLE BATTERY PROTECTION SYSTEM” carried out by Mr. ROOPESH N (1MV21EE431), Mr. SELVAN S (1MV21EE436), Mr. SHARATH KUMAR U (1MV21EE431), Mr. SRINATH KV (1MV21EE44), Bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the above-mentioned degree.

Signature of Guide  
Mrs. Rekha Radhakrishnan

Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore-562 157  
(Via) Yelahanka, Bengaluru - 562 157  
EXTERNAL VIVA

Signature of Principal  
Prof. Rakesh S G  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore-562 157  
International Airport Road, Bangalore-562 157

Name of Examiners

1. Dr. SURESH H L

2. Nagaraj D.C

Signature with Date



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**  
**on**  
**"ARTIFICIAL INTELLIGENCE BASED WASTE SEGREGATION DUSTBIN**  
**SYSTEM"**

Submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**ADARSH KUMAR GUPTA**

**1MV20EE002**

**AMAN KUMAR**

**1MV20EE005**

**ANAND SINGH**

**1MV20EE006**

**AVANEESH PATEL**

**1MV20EE012**

Under the Guidance of

**Dr. Suresh H L**

Professor & Head

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering



## CERTIFICATE

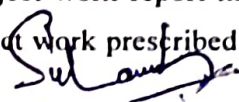
Certified that the Project work entitled "**ARTIFICIAL INTELLEGINCE BASED WASTE SEGREGATION DUSTBIN SYSTEM**" carried out by Mr. ADARSH KUMAR GUPTA (1MV20EE002), Mr. AMAN KUMAR (1MV20EE005), Mr. ANAND SINGH (1MV20EE006), Mr. AVANEESH PATEL (1MV20EE012), bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the above-mentioned degree.

  
Signature Guide  
Dr. Suresh H L

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsaromanehalli  
(Via) Yelahanka, Bengaluru - 562 157



EXTERNAL VIVA

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsaromanehalli  
Bengaluru - 562 157  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1. R. SIVAPRIYAN
2. AD Kalyan

  
28/05/24  




# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Project Report**

**On**

**"INDUSTRIAL HEAT MONITORING AND CONTROL SYSTEM USING IOT"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**AKHILLA SRK  
MOHAMMED NAWAZ  
POOJA K R  
SUCHITHRA J**

**1MV20EE004  
1MV21EE417  
1MV21EE423  
1MV21EE443**

Under the Guidance of

**Mrs. Rekha Radhakrishnan**

Assistant Professor,  
Dept. of Electrical & Electronics Eng.,  
Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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**2023 – 2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Project Work entitled "INDUSTRIAL HEAT MONITORING AND CONTROL SYSTEM USING IOT" carried out by AKHILLA SRK (IMV20EE004), MOHAMMED NAWAZ (IMV21EE417), POOJA K R (IMV21EE423), SUCHITHRA J (IMV21EE443), bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

Signature of Guide  
Mrs. Rekha Radhakrishnan

Signature of HOD  
Dr. Suresh H D  
PROF. & HEAD

Signature of Principal  
Prof. Rakesh S G

DEPT. OF ELECTRICAL & ELECTRONICS ENGG. Krishnadevarayanagar, Hunasamaranahalli  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY International Airport Road, Bengaluru-562157  
Krishnadevarayanagar, Hunasamaranahalli  
(Vis) Krishnadevarayanagar - 562157

EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. SURESH H D

27/12/24

2. Neeganeswari D.C

27/12/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



## **Project Report**

**on**

## **"DEVELOPMENT OF AUTOMATIC POWER SOURCE SELECTOR"**

submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING**

**IN**

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>P.SANTHOSH</b>	<b>USN: 1MV20EE051</b>
<b>S.A.HAMEED</b>	<b>USN: 1MV20EE063</b>
<b>UTKARSH SINGH</b>	<b>USN: 1MV20EE071</b>

Under the Guidance of

**Mrs. Harshithananda B**

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE New Delhi, Accredited by NAAC and NBA)

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**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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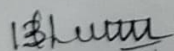
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering

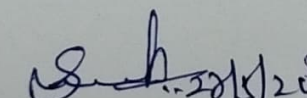


## CERTIFICATE

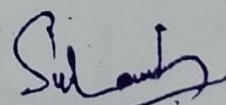
Certified that the project work entitled “DEVELOPMENT OF AUTOMATIC POWER SOURCE SELECTOR” carried out by Mr. P.SANTHOSH - 1MV20EE051, Mr. S.A.HAMEED - 1MV20EE063, Mr. UTKARSH SINGH - 1MV20EE071, bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.



Signature Guide  
Mrs. Harshithananda B

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore  
(Via) Yelahanka, Bengaluru - 562 157



PRINCIPAL

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Krishnadevarayanagar, Hunsur, Mysore  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## INTERNAL VIVA

Name of Examiners

Signature with Date

- 1.
- 2.



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Project Report**

on

**"HYBRID HYDROGEN FUEL CELL ELECTRIC VEHICLE"**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**MOHMAD HUZEF TATARIA**

**1MV20EE045**

**V NIRANJAN**

**1MV20EE073**

**VENKATA SUSHEEL VARMA**

**1MV20EE076**

**YASHWANTH YADAV P S**

**1MV20EE077**

Under the Guidance of

Mrs. D Beula

Associate Professor

Department of Electrical & Electronics Engineering

SIR M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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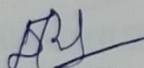
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

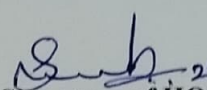
Department of Electrical & Electronics Engineering



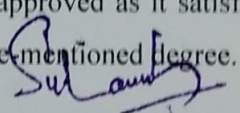
## CERTIFICATE

Certified that the project work entitled **"HYBRID HYDROGEN FUEL CELL ELECTRIC VEHICLE"** carried out by Mr. Mohmad Huzef Tataria - 1MV20EE045, Mr. V Niranjan - 1MV20EE073, Mr. Venkata Susheel Varma - 1MV20EE076, Mr. Yashwanth Yadav P S - 1MV20EE077, bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above mentioned degree.

  
Signature of Guide  
Mrs. D Beula

  
Signature of HOD  
Dr. Suresh H L  
**PROF. & HEAD**

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahanahalli  
(Via) Yelahanka, Bengaluru - 562 157

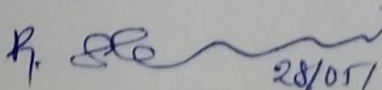
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahanahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S C

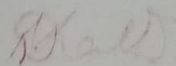
## INTERNAL VIVA

Name of Examiners

Signature with Date

1. R. SIVAKRISHNAN
2. H. D. KATTIMANI

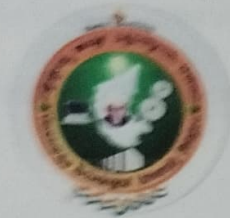
  
28/05/24

  
28/05/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Project Report

on

"Simulation and Implementation of Dual Converter"

submitted in partial fulfillment of the requirements for the award of the Degree of

BACHELOR OF ENGINEERING

IN

ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

USHA M S

1MV20EE070

UTTAM AMBAPPA BHAVIMANI

1MV20EE072

V ROHITH

1MV20EE074

NIKHIL MAHESH PATIL

1MV21EE422

Under the Guidance of

Mr. Kumaraswamy R.

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

2023 – 2024



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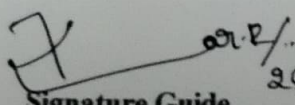
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering

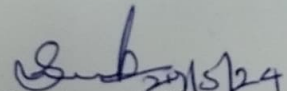


## CERTIFICATE

Certified that the project work entitled "Simulation and Implementation of Dual Converter" carried out by Ms. Usha M S - 1MV20EE070, Mr. Uttam ambappa bhavimani - 1MV20EE072, Mr. V Rohith - 1MV20EE074, Mr. Nikhil Mahesh patil - 1MV21EE422, bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

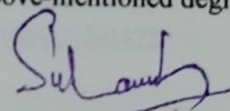
  
28/5

Signature Guide  
Kumaraswamy R

  
28/5/24

Signature of HOD  
Dr. Suresh H E

PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Ma) Yelahanka, Bengaluru - 562 157  
INTERNAL VIVA



PRINCIPAL

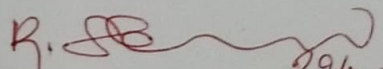
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Prof. Rakesh S G

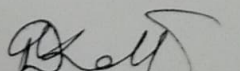
Name of Examiners

1. R. SIVARIVAN
- 2.

HD Kallurani

Signature with Date

  
29/05/24.

  
29/5/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Project Report

on

## "VOLTAGE VARIATION BASED AUTONOMOUS CONTROL OF DC MICROGRID"

Submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**MD NAWAZ SHARIF KHAN**

**1MV20EE043**

**MOHITH N**

**1MV20EE044**

**PRANAV RAJ**

**1MV20EE052**

**YUVRAJ SINGH**

**1MV20EE078**

Under the Guidance of

**MS. P. KEZIA JOY KUMARI**

Assistant Professor

Department of Electrical and Electronics Engineering,

Sir M. VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Project work entitled "VOLTAGE VARIATION BASED AUTONOMOUS CONTROL OF DC MICROGRID" carried out by Mr. Md NAWAZ SHARIF KHAN (1MV20EE043), Mr. MOHITH N (1MV20EE044), Mr. PRANAV RAJ (1MV20EE052), Mr. YUVRAJ SINGH (1MV20EE078), bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the above mentioned degree.

*[Signature]*

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunasamaranahalli  
International Airport Road, Bengaluru - 562157

*[Signature]*  
Signature Guide  
Ms. P. Kezha Joy Kumari

*[Signature]*  
Signature of HOD  
Dr. Suresh H  
PROF. IN CHARGE

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunasamaranahalli  
(Via) Yalahanka, Bengaluru - 562157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. R. SIVAKUMAR

*[Signature]*  
28/07/24

2.

HD Kellimari

*[Signature]*  
28/07/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Project Report

On

**"ADVANCED TRAFFIC CONTROL SYSTEM"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**Ms. MONIKA M R**

**1MV20EE046**

**Ms. SANIYA**

**1MV20EE061**

**Mr. PUNEETH C G**

**1MV21EE427**

**Mr. VENKATESH K**

**1MV21EE449**

Under the Guidance of

**Dr. Suresh H L**

Professor & Head,  
SIR.MVIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

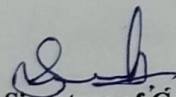
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

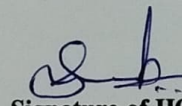
Department of Electrical & Electronics Engineering

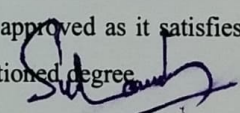


## CERTIFICATE

Certified that the Project work entitled “ADVANCED TRAFFIC CONTROL SYSTEM” carried out by Ms. MONIKA M R (1MV20EE046), Ms. SANIYA (1MV20EE061), Mr. PUNEETH C G (1MV21EE427), Mr. VENKATESH K (1MV21EE449), a bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Suresh H L

  
Signature of HOD  
Dr. Suresh H L  
27/5/24  
PROF. & HEAD

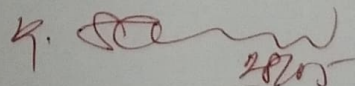
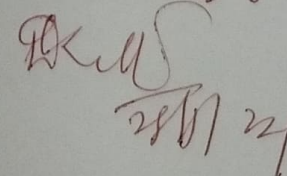
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S.G

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
(Via) Yelahanka, Bengaluru - 562 157  
EXTERNAL VIVA

Name of Examiners

Signature with Date

1. R. SIVAPRIMA
2. AD Kalyanani

  
28/05  
  
28/05/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Project Report**

on

## **"DESIGN AND SET UP OF A HYBRID SOLAR SEAWATER DESALINATION SYSTEM "**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>ANIKA KUMARI</b>	<b>1MV20EE008</b>
<b>ARATI</b>	<b>1MV20EE011</b>
<b>MAYANK MANU</b>	<b>1MV20EE042</b>
<b>TUSHAR KUMAR</b>	<b>1MV20EE079</b>

Under the Guidance of

Mrs. P sumalatha

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

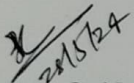
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

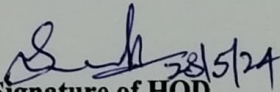
Department of Electrical & Electronics Engineering

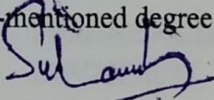


## CERTIFICATE

Certified that the project work entitled **“DESIGN AND SET UP OF A HYBRID SOLAR SEAWATER DESALINATION SYSTEM”** carried out by **Ms. Anika Kumari - 1MV20EE008, Ms. Arati - 1MV20EE011, Mr. Mayank Manu - 1MV20EE042, Mr. Tushar Kumar - 1MV20EE079**, bonafide students of **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Mrs. P Sumalatha

  
Signature of HOD  
Dr. Suresh H L

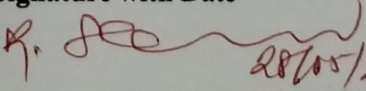
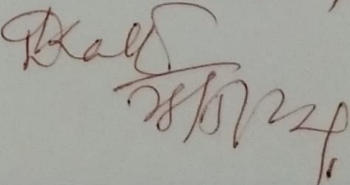
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

1. R. SIVAPRIYAN
2. HD Kethamani

Signature with Date

  
28/05/24  
  
28/05/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Project Report**

on

## **"INDUCTION MOTOR CONTROLLER AND PROTECTION SYSTEM USING IOT"**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>ANSH KUMAR</b>	<b>1MV20EE010</b>
<b>RAHUL KUMAR</b>	<b>1MV20EE055</b>
<b>ROMI SHARMA</b>	<b>1MV20EE058</b>
<b>SANSKAR BHATT</b>	<b>1MV20EE062</b>

Under the Guidance of

Mr. Pradeep Kumar

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

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**2023 – 2024**



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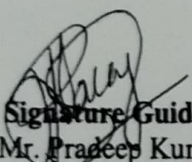
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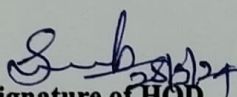
Department of Electrical & Electronics Engineering

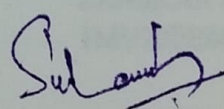


## CERTIFICATE

Certified that the project work entitled “INDUCTION MOTOR CONTROLLER AND PROTECTION SYSTEM USING IOT” carried out by Mr. Ansh Kumar - 1MV20EE010, Mr. Rahul Kumar - 1MV20EE055, Mr. Romi Sharma - 1MV20EE058, Mr. Sanskar Bhatt - 1MV20EE062, bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Mr. Pradeep Kumar

  
Signature of HOD  
Dr. Suresh H L

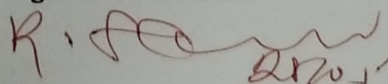
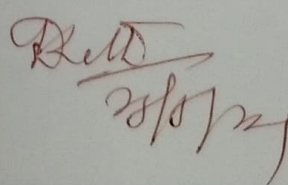
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
Signature of Principal  
Prof. Ramesh B S

## INTERNAL VIVA

### Name of Examiners

1. R. SIVAPRIYA
2. H.D. Kethimang

### Signature with Date

  
28/07/24  
  
28/07/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“Jnana Sangama”, Belagavi-590 018**



## **Project Report**

**on**

## **“DEVELOPMENT OF AUTOMATIC POWER SOURCE SELECTOR”**

submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING**

**IN**

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**P.SANTHOSH      USN: 1MV20EE051**

**S.A.HAMEED      USN: 1MV20EE063**

**UTKARSH SINGH      USN: 1MV20EE071**

Under the Guidance of

**Mrs. Harshithananda B**

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the project work entitled “DEVELOPMENT OF AUTOMATIC POWER SOURCE SELECTOR” carried out by Mr. P.SANTHOSH - 1MV20EE051, Mr. S.A.HAMEED - 1MV20EE063, Mr. UTKARSH SINGH - 1MV20EE071, bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

Signature Guide  
Mrs. Harshithananda B

Signature of HOD  
Dr. Suresh H.

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

1. R. SIVAPRIYA
2. H.D. KATUNANI

Signature with Date



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Project Report

On

"AUTOMATIC FAULT DETECTION AND CLEARING SYSTEM IN  
ELECTRIC VEHICLE"

submitted in partial fulfillment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

Ms. MONIKA H

Ms. RAKSHITHA R S

Mr. SHIVAKUMAR

Mr. SUHEB C N

1MV21EE418

1MV21EE429

1MV21EE440

1MV21EE446

Under the Guidance of

Mr. Bhaskar C

Assistant Professor,

SIR MVIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

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2023 – 2024



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Project work entitled "AUTOMATIC FAULT DETECTION AND CLEARING SYSTEM IN ELECTRIC VEHICLE" carried out by Ms. MONIKA H (1MV21EE418), Ms. RAKSHITHA R S (1MV21EE429), Mr. SHIVAKUMAR (1MV21EE440), Mr. SUHEB C N (1MV21EE446), a bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

Signature of Guide  
Dr. Bhaskar C

Signature of HOD  
Dr. Suresh H L

PRINCIPAL

Signature of Principal  
Prof. Rakshab S

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
Krishnadevarayanagar, Hunsur, Bengaluru - 562157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. R. SIVAPRIYA

R. S. 28/05

2. H D Kalyanani

H. D. 28/05/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Project Report

On

**"VISION UNLOCKED: ENHANCING MOBILITY FOR THE BLIND"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**AKASH M DODDAMANE**

**1MV20EE003**

**BASAVESH G ANGADI**

**1MV20EE014**

**CETHAN H J**

**1MV20EE020**

**KIRAN C N**

**1MV20EE036**

Under the Guidance of

Dr. Mahesh.K  
Professor,  
Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

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**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NMAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the project work entitled "VISION UNLOCKED: ENHANCING MOBILITY FOR THE BLIND" carried out by Mr. Akash M Doddamane - 1MV20EE003, Mr. Basavesh G Angadi, - 1MV20EE014, Mr. Chethan H J - 1MV20EE020, Mr. Kiran C N, - 1MV20EE036, bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The main Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

Signature Guide  
Dr. Mahesh. K

Signature of HOD

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramannu  
(Off) Hunsuramannu, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Suresh. H.L.

30/5/24

2. HD Kulkarni

30/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Project Report**

on

### **"DESIGN AND IMPLEMENTATION OF WIRELESS ELECTRIC VEHICLE CHARGING SYSTEM USING SOLAR POWER"**

submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>B MADHU</b>	<b>1MV21EE404</b>
<b>KISHOR HASILKAR</b>	<b>1MV21EE411</b>
<b>M MOHAN KUMAR</b>	<b>1MV21EE413</b>
<b>PRAJWAL G</b>	<b>1MV21EE424</b>

Under the Guidance of

Dr. Siddappaji M R

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**





CHEN ET AL.

[illegible]

Signature of \_\_\_\_\_  
Date: \_\_\_\_\_

... (faint text) ...

SEAL OF THE DISTRICT COURT OF THE DISTRICT OF COLUMBIA  
IN RE: THE ESTATE OF JAMES H. HARRIS, JR.  
JAMES H. HARRIS, JR., Deceased  
JAMES H. HARRIS, JR., Deceased  
JAMES H. HARRIS, JR., Deceased

1994

### Results of Experiments

1. 2004-2005

**Signature with Date**

1. 1954



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

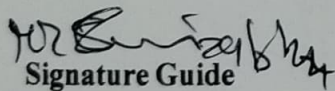
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

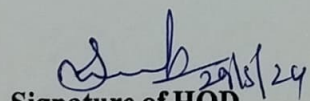
Department of Electrical & Electronics Engineering

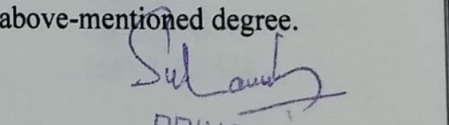


## CERTIFICATE

Certified that the project work entitled **"DESIGN AND IMPLEMENTATION OF WIRELESS ELECTRIC VEHICLE CHARGING SYSTEM USING SOLAR POWER"** carried out by **Mr. B MADHU - 1MV21EE404, Mr. Kishor R Hasilkar - 1MV21EE411, Mr. M Mohan Kumar - 1MV21EE413, Mr. Prajwal G - 1MV21EE424**, bonafide students of **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Dr. Siddappaji M R

  
Signature of HOD  
Dr. Suresh H B

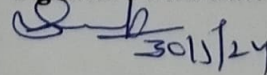
  
PRINCIPAL  
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International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G

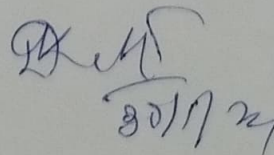
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yalahanka, Bengaluru - 562 157  
INTERNAL VIVA

### Name of Examiners

1. Dr. Suresh H B
2. Dr. Kishan

### Signature with Date

  
30/11/24

  
30/11/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Project Report

on

### "IOT BASED HYBRID POWER GENERATION SYSTEM UTILIZING SOLAR AND WIND ENERGY ON HIGHWAYS"

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

CHETAN	1MV21EE407
JALINDAR	1MV21EE410
SHIVALINGAYYA	1MV21EE441
MAHAMMAD MAKBUL	1MV21EE450

Under the Guidance of

Ms. Priyanka Nayak

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru



Department of Electrical & Electronics Engineering

## Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

2023 – 2024



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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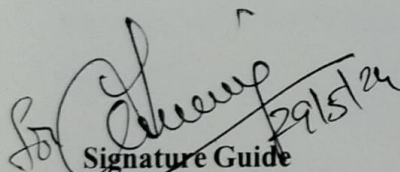
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

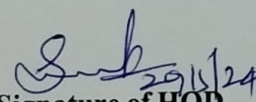
Department of Electrical & Electronics Engineering

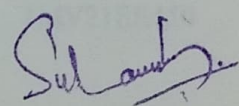


## CERTIFICATE

Certified that the project work entitled “IOT BASED HYBRID POWER GENERATION SYSTEM UTILIZING SOLAR AND WIND ENERGY ON HIGHWAYS” carried out by Mr. CHETAN - 1MV21EE407, Mr. JALINDAR - 1MV21EE410, Mr. SHIVALINGAYYA - 1MV21EE441, Mr. MAHAMMAD MAKBUL - 1MV21EE450, bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Ms. Priyanka Nayak

  
Signature of HOD  
Dr. Suresh H. L.  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore  
(Via) Yalahanka, Bengaluru - 562 157  
INTERNAL VIVA

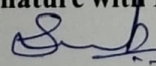
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore  
International Airport Road, Bangalore-562 157

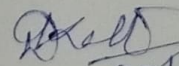
Name of Examiners

1. Dr. SURESH H. L.

2. AD. Kalyanani

Signature with Date

 30/5/2024

 30/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Project Report**

on

**" DEVELOPMENT OF SMART PREPAID ENERGY METER USING  
GSM AND ARDUINO UNO"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**CHANDAN R**

**1MV21EE406**

**PUNITH KUMAR T L**

**1MV21EE426**

**SUMITH H V**

**1MV21EE447**

**UDAY J**

**1MV21EE448**

Under the Guidance of

**Mr.V Rajesh Kumar**

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

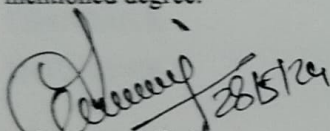
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

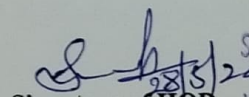
Department of Electrical & Electronics Engineering



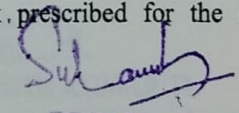
## CERTIFICATE

Certified that the project work entitled "DEVELOPMENT OF SMART PREPAID ENERGY METER USING GSM AND ARDUINO UNO" carried out by CHANDAN R - 1MV21EE406, PUNITH KUMAR T L-1MV21EE426, SUMITH H V -1MV21EE447, UDAY J-1MV21EE448 a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Mr. V Rajesh Kumar

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

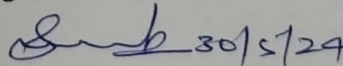
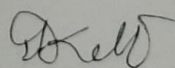
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S.G.

### INTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Suresh H.L.
2. AD Kalyamani

 30/5/24  
  
30/07/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Project Report

on

## "SIMULATION AND IMPLEMENTATION OF SEPIC FED MULTILEVEL INVERTER"

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**DEEKSHA S**

**1MV20EE022**

**DIVYA K S**

**1MV20EE025**

**MADAN GOWDA H**

**1MV20EE038**

**MALLAPPA**

**1MV20EE039**

Under the Guidance of

**Mr. Kumara Swamy R**

Assistant Professor

SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



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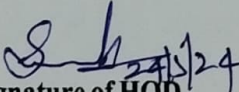
Department of Electrical & Electronics Engineering

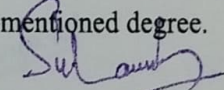


## CERTIFICATE

Certified that the project work entitled “*Simulation and implementation of Sepic fed multilevel inverter*” carried out by Ms. DEEKSHA S, USN 1MV20EE022, Ms. DIVYA K S, USN 1MV20EE025, Mr. MADAN GOWDA H, USN 1MV20EE038, Mr. MALLAPPA, USN 1MV20EE039, a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Mr. Kumara Swamy R

  
Signature of HOD  
Dr. H. Suresh

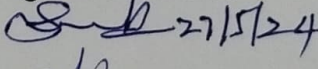
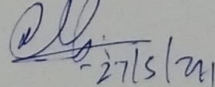
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S C

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Bengaluru - 562157  
(EXTERNAL VIVA)

Name of Examiners

1. Dr. Suresh H L
2. Nagaraj P L

Signature with Date

  
27/5/24  
  
27/5/24





Project Report  
on

**"DESIGN AND IMPLEMENTATION OF SMART ELECTRIC POLE  
FOR CHARGING ELECTRIC VEHICLES"**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>ANJANA K M</b>	<b>1MV20EE009</b>
<b>CHAITHRA R</b>	<b>1MV20EE018</b>
<b>H KEERTANA</b>	<b>1MV20EE030</b>
<b>KUSUMA</b>	<b>1MV20EE037</b>

Under the Guidance of

**Mrs. P Sumalatha**

Assistant professor  
Department of Electrical and Electronics Engineering  
Sir M.VIT, Bengaluru



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 - 2024**




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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru-562157**

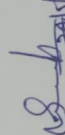
**Department of Electrical & Electronics Engineering**

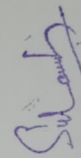


**CERTIFICATE**

Certified that the project work entitled "DESIGN AND IMPLEMENTATION OF SMART ELECTRIC POLE FOR CHARGING ELECTRIC VEHICLES" carried out by Ms. ANJANA K M (1MV20EE009), Ms. CHAITHRA R (1MV20EE018), Ms. H KEERTANA (1MV20EE030), Ms. KUSUMA (1MV20EE037) a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Department of Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work report prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. P Sumalatha

  
Signature of HOD  
Dr. Suresh H.L.

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S.G.



PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157

**INTERNAL VIVA**

Name of Examiners

1. Dr. Suresh H.L.
2. Nagaraj D.C

Signature with Date

 27/5/24  
 27/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Project Report  
On**

**"AUTOMATED SEED SOWING AGRICULTURE ROBOT USING ARDUINO"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**Mr. KARTHIK K RATHOD**

**Mr. ABHISHEK D**

**Mr. BALAJI J C**

**Mr. MAHESH K S**

**1MV20EE034**

**1MV21EE400**

**1MV21EE405**

**1MV21EE414**

Under the Guidance of

**Dr. Suresh H L**

Professor & Head,

SIRMVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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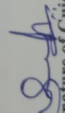
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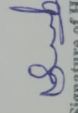
Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Project work entitled “AUTOMATED SEED SOWING AGRICULTURE ROBOT USING ARDUINO” carried out by Mr. KARTHIK K RATHOD (1MV20EE034), Mr. ABHISHEK D (1MV21EE400), Mr. BALAJI J C (1MV21EE405), Mr. MAHESH K S (1MV21EE414), a bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Suresh H L

  
Signature of HOD  
Dr. Suresh H L

  
PRINCIPAL  
Signature of Principal  
Sir M. Visvesvaraya Institute of Technology  
Krishnadevaraya Nagar, Bengaluru - 562157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1.

2.





**Project Report  
On  
"E-LEARNING APPLICATION"**

Submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**GANGARAJU R  
HARSHITHA B P  
NIKHIL G  
SHEETHAL C**

**1MV20EE028  
1MV20EE032  
1MV21EE421  
1MV21EE439**

Under the Guidance of

**Dr. R. Sivapriyan,**  
Associate Professor  
Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
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**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Project work entitled "E-LEARNING APPLICATION" carried out by GANGARAJU R (1MV20EEE028), HARSHITHA B P (1MV20EEE032), NIKHIL G (1MV21EEE421), SHEETHAL C (1MV21EEE439), a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

*R. Srinivasan*  
Signature of Guide  
Dr. R Sivapriyan

*S. Suresh*  
Signature of HOD  
Dr. Suresh, HEAD

*S. Suresh*  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Bengaluru - 562157  
International Airport Road, Bengaluru - 562157

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarayanahalli  
(Via) Yelahanka, Bengaluru - 562157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

- 1.
- 2.





Project Report  
on

**"RFID-BASED SMART PETROL PUMP"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

Amruth kumar N  
Ashoka K M  
Chethan kumar S  
Sachin s karagi

1MV21EE402  
1MV21EE403  
1MV21EE408  
1MV21EE432

Under the Guidance of

**Mrs. VIJAYALAKSHMI.A.K**

Assistant Professor

Department of Electrical & Electronics Engineering

Sir M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

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**2023–2024**



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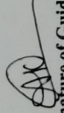
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

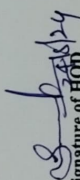
Department of Electrical & Electronics Engineering

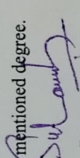


## CERTIFICATE

Certified that the project work entitled “RFID-BASED SMART PETROL PUMP” carried out by Mr. Amruth kumar N (IMV21EE402), Mr. Ashoka K M (IMV21EE403), Mr. Chethan kumar S (IMV21EE408), Mr. Sachin s karagi (IMV21EE432), Bonafide students of Sir M. Visvesvaraya Institute of Technology, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above mentioned degree.

  
Signature of Guide  
Mrs. Vijayalakshmi A K

  
Signature of HOD  
Dr. Suresh H  
PROF. & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S G

DEPT. OF ELECTRICAL & ELECTRONICS ENGG  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Bengaluru-562 157  
(Via) Yalahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners Signature with Date

- 1.
- 2.





**Project Report**

on

**"Simulation and Implementation of Battery Management System using Proteus  
and Arduino"**

Submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**BHUVAN P M**

**1MV20EE016**

**FAHIM KHAN**

**1MV20EE027**

**HARSHITH K M**

**1MV20EE031**

**SHASHIDHAR S**

**1MV21EE438**

Under the Guidance of

**Mr. Kumara Swamy R,**

Assistant Professor

SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



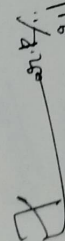
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157**


**Department of Electrical & Electronics Engineering**

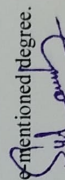


**CERTIFICATE**

Certified that the Project work entitled **"Simulation and Implementation of Battery Management System using Proteus and Arduino"** carried out by **BHUVAN P M (IMV20EE016), FAHIM KHAN (IMV20EE027), HARSHITH K M (IMV20EE031), SHASHIDHAR S (IMV21EE438)**, a bonafide students of **Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the above mentioned degree.

  
**Signature of Guide** 21/05  
**Mr. Kumara Swamy R**

  
**Signature of HOD**  
**DR. SURESH H**

  
**PRINCIPAL**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
**Krishnadevaraya Nagar, Bengaluru - 562157**  
**Signature of Principal**  
**Internatinal Prof. Rakesh S**  
**International Airport Road, Bengaluru - 562157**

**DEPT. OF ELECTRICAL & ELECTRONICS ENGR.**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
**Krishnadevaraya Nagar, Bengaluru - 562157**  
**(V) Yashwanth, Bengaluru - 562157**

**EXTERNAL VIVA**

**Name of Examiners** **Signature with Date**

- 1.
- 2.



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

“Jnana Sangama,” Belagavi-590 018



**Internship Report**  
on  
**“MAINTAINANCE AND OPERATION OF SUBSTATION”**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**A BHARATH**  
**USN: 1MV20EE001**

Under the Guidance of

Internal Guide  
**Dr. Mahesh K**  
Professor  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide  
**Mr. T Venkatesulu naidu**  
Assistant Engineer  
APSPDCL,  
Tirupati, Andhra Pradesh



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled **“MAINTAINANCE AND OPERATION OF SUBSTATION”** was carried out by **Mr. A BHARATH** USN 1MV20EE001, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements with respect to the internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Mahesh K

  
Signature of HOD  
Dr. Suresh H L

  
Principal  
Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli,  
International Airport Road, Bangalore-562157.  
Signature of Principal  
Prof. Rakesh S G

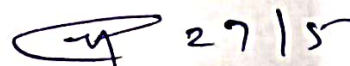

Dr. Suresh H L  
ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr Mahesh K

 27/5  
 22/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "AUTOMATIC QUIZ BUZZER SYSTEM"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**ADARSH KUMAR GUPTA**  
**USN: 1MV20EE002**

Under the Guidance of

**Internal Guide**  
**Dr. Mahesh K**  
Professor  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Ajay Poonia**  
Director  
Evolving Edutainment Pvt. Ltd.,  
Pitampura, Delhi.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled "AUTOMATIC QUIZ BUZZER SYSTEM" was carried out by Mr. ADARSH KUMAR GUPTA USN 1MV20EE002, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements with respect to the internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Mahesh K

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD



DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Munasamranahalli  
(Via) Raichur, Bengaluru - 562 157


### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddappa J. MUR

  
29/5/24  
  
29/5/24

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Munasamranahalli  
International Airport Road, Bengaluru-562 157



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

**"STUDY ON SUBSTATION EQUIPMENTS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**AKASH M DODDAMANE**

**USN:1MV20EE003**

Under the Guidance of

**Internal Guide**

**Dr. Mahesh K**

Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

**External Guide**

**Mr. Srikant T**

Assistant Executive Engineer,  
KPTCL Benkikere



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Department of Electrical & Electronics Engineering



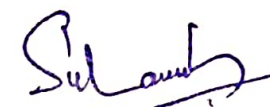
## CERTIFICATE

Certified that the internship entitled “**STUDY ON SUBSTATION EQUIPMENTS**” carried out by **Mr. AKASH M DODDAMANE** USN 1MV20EE003, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship workprescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Mahesh K

  
Signature of HOD  
DEPT. HEAD


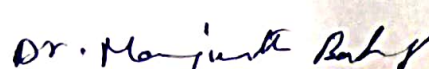
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
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Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

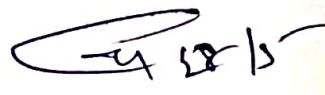
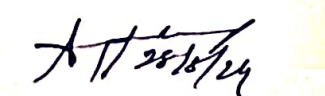
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. 
2. Dr. Manjunath Babu 



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama," Belagavi-590 018



**Internship Report**  
on  
**"INDUSTRIAL COMMUNICATION PROTOCOLS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**AKHILLAA S R K**  
**USN: 1MV20EE004**

Under the Guidance of

Internal Guide  
**Dr. Mahesh K**  
Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide  
**Mr. Prashanth**  
Lead Manager,  
Harmonizer India Private Limited,  
Sunkadakatte, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Department of Electrical & Electronics Engineering**



Certified that the internship entitled **“INDUSTRIAL COMMUNICATION PROTOCOL”** carried out by **Ms. AKHILLAA SRK USN 1MV20EE004**, a Bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of HOD  
Dr. SURESH K. HEAD

Dr. SURESH K. HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Kishinurda, Jayanagar, Hunsur, Mysore  
(Mysore), Bangalore - 562 157

**PRINCIPAL**  
Signature of Principal  
SIR JAYASANKAR INSTITUTE OF TECHNOLOGY  
Prof. Rakesh S G  
Krookode, Mysore, Karnataka-571 021, India  
International Airport Road, Bangalore-562 187

**Signature with Date**

1. Dr. Lu Mon
2. Dr. Mayjuntla Bhatia

Q 30/17  
11/24/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "ERECTION OF 33KVA INDUSTRIAL TRANSFORMER"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**AMAN KUMAR**  
USN: 1MV20EE005

Under the Guidance of

**Internal Guide**  
**Dr. Mahesh K**  
Professor  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Rajesh Kumar**  
Director  
R K Electrical Pvt. Ltd.,  
Jamshedpur, Jharkhand.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled ***“ERECTION OF 33KVA INDUSTRIAL TRANSFORMER”*** was carried out by Mr. AMAN KUMAR USN 1MV20EE005, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements with respect to the internship work prescribed for the above-mentioned degree.

Signature of Guide  
Dr. Mahesh K

Signature of HOD  
Dr. Suresh H L

Signature of Principal  
Prof. Rakesh S G

PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahanahalli  
(Via) Yelchanka, Bengaluru - 562 157  
**EXTERNAL VIVA**

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddappa S. MR

Signature with Date  
29/5/24  
MR Suresh H L



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

“Jnana Sangama”, Belagavi-590 018



## **Internship Report on “SMART PARKING SYSTEM USING IOT”**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**ANAND SINGH**  
**USN: 1MV20EE006**

Under the Guidance of

**Internal Guide**  
**Dr. Mahesh K**  
Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Ms. Spoorthi C**  
Director,  
Varcons Technologies Pvt. Ltd.,  
Ulsoor, Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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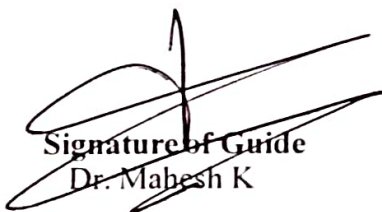
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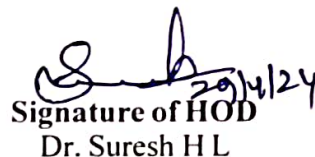
Department of Electrical & Electronics Engineering

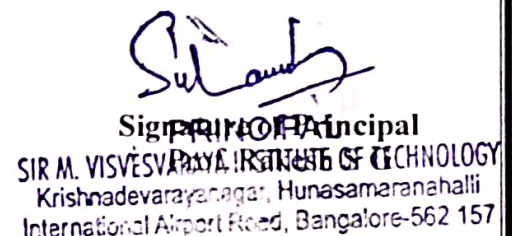


## CERTIFICATE

Certified that the internship entitled "SMART PARKING SYSTEM USING IOT" carried out by ANAND SINGH, USN 1MV20EE006, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Mahesh K

  
Signature of HOD  
Dr. Suresh H L

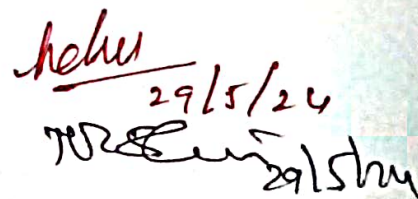
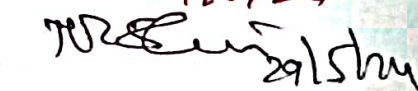
  
Signature of Principal  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhus Palati
2. Dr. Siddharth MR

  
29/5/24  
  
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

“Jnana Sangama,” Belagavi-590 018



## **Internship Report**

on

### **“BRIEF OVERVIEW OF DEPARTMENTAL PROCEDURES AND OPERATION IN BMRCL”**

submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**ANJANA K M**

**USN: 1MV20EE009**

Under the Guidance of

Internal Guide

**Dr. Mahesh K**

Professor,

Electrical & Electronics Engineering,

Sir. MVIT, Bengaluru.

External Guide

**Maruthi M Naik**

Deputy Chief Engineer,

BMRCL

Shantinagar, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “**BRIEF OVERVIEW OF DEPARTMENTAL PROCEDURES AND OPERATION IN BMRCL**” carried out by Ms. ANJANA K M, USN 1MV20EE009, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Dr. Mahesh K

Signature of HOD  
Dr. Suresh H L

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanehalli  
(Via) Yelahanka, Bengaluru - 562 157

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanehalli  
Internal Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C. V. Mohan
2. Dr. Manjunath Rakesh

Signature with Date  
20/6/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"JnanaSangama", Belagavi-590018



**Internship Report**

**on**

**"MACHINING, ASSEMBLY AND OPERATION OF INDUCTION MOTOR"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**ANSH KUMAR**

**USN: 1MV20EE010**

Under the Guidance of

**Internal Guide**

Dr. C V Mohan  
Associate Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**

Shri. Anshu Anand  
Dy.Manager,(Production)  
BHEL, Bhopal.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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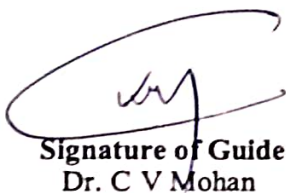
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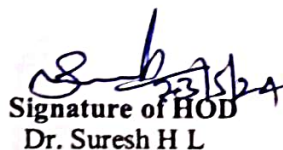
Department of Electrical & Electronics Engineering

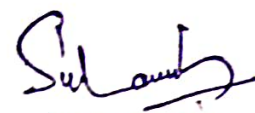


## CERTIFICATE

Certified that the internship entitled **"MACHINING, ASSEMBLY AND OPERATION OF INDUCTION MOTOR"** carried out by ANSH KUMAR USN: 1MV20EE010, a bonafide student of SIR M.VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2023- 2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. C V Mohan

  
Signature of HOD  
Dr. Suresh H L


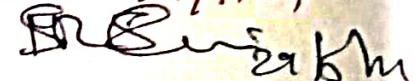
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru -562157  
International Airport Road, Bengaluru -562157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhus Palati
2. Dr. Siddappaiah M

  
29/5/24  




# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "STUDY OF SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**ARATI**  
**USN:1MV20EE011**

Under the Guidance of

**Internal Guide**  
**Dr.C V Mohan**  
Associate Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

**External Guide**  
**Mrs. Kalyani N Madari**  
Assistant Executive Engineer,  
110/33/11k v substation,KPTCL  
South, Kalaburagi.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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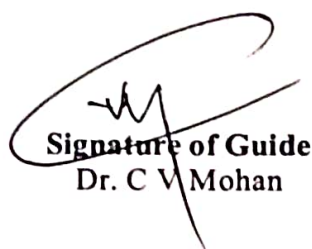
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

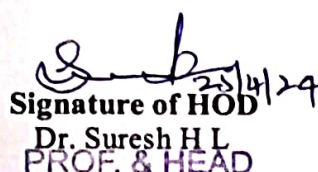
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled “**STUDY OF SUBSTATION**” carried out by **Ms. ARATI** USN 1MV20EE011, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. C V Mohan

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157


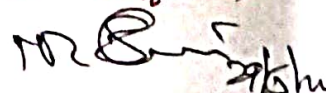
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhus Palati
2. Dr. Siddappaiah

  
29/5/24  
  
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report on "SMART PARKING SYSTEM USING IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**AVANEESH PATEL**  
**USN: 1MV20EE012**

Under the Guidance of

**Internal Guide**  
**Dr. C V Mohan**  
Associate Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Ms. Spoorthi C**  
Director,  
Varcons Technologies Pvt. Ltd.,  
Ulsoor, Bengaluru.



**Department of Electrical & Electronics Engineering**

## **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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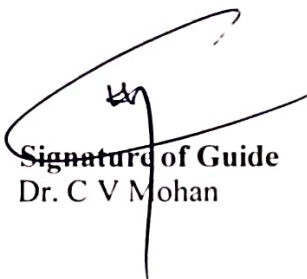
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Department of Electrical & Electronics Engineering

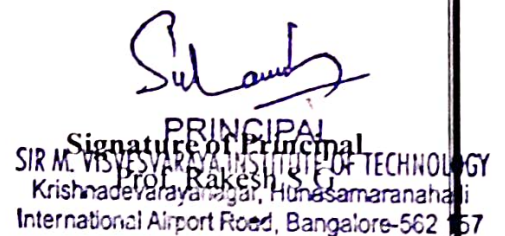


## CERTIFICATE

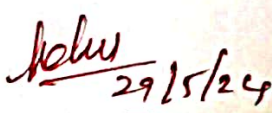
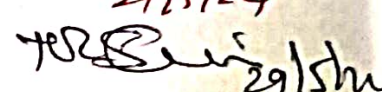
Certified that the internship entitled "SMART PARKING SYSTEM USING IOT" carried out by AVANEESH PATEL, USN 1MV20EE012, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. C V Mohan

  
Signature of HOD  
Dr. Suresh H L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsamaranahalli  
International Airport Road, Bangalore-562 157

## EXTERNAL VIVA

Name of Examiners	Signature with Date
1. Dr. Madhus Palati	 29/5/24
2. Dr. Siddharth H R	 29/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“Jnana Sangama”, Belagavi-590 018**



**Internship Report**

**on**

**“STUDY ON SUBSTATION AND ITS EQUIPMENTS”**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**BASAVESH GADIGESH ANGADI**

**USN:1MV20EE014**

Under the Guidance of

**Internal Guide**

**Dr. C V Mohan**

Associate Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

**External Guide**

**Mr. Vijaya Joshi**

Assistant Executive Engineer,  
KPTCL, Ranebennur.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023–2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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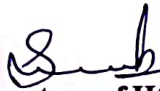
## Department of Electrical & Electronics Engineering




### CERTIFICATE

Certified that the internship entitled “**STUDY ON SUBSTATION EQUIPMENTS**” carried out by Mr. **BASAVESH GADIGESH ANGADI**, USN 1MV20EE014, a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. C V Mohan

  
Signature of HOD  
Dr. Suresh H L

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarnerahalli  
(Via) Yelahanka, Bengaluru - 562 157

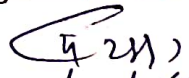
  
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SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarnerahalli  
Internal Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

1. C V Mohan
2. Dr. Manjunath Reddy

Signature with Date

  
AT 20/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"JnanaSangama", Belagavi-590018



**Internship Report**  
on  
**"TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT"**

Submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**BHARATH MADIVALAR**  
**USN: 1MV20EE015**

Under the Guidance of

**Internal Guide**  
Dr. C V Mohan  
Associate professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
Dr. Shivappa V Sobarad  
Assistant engineer (Ele).  
GESCOM Munirabad.



**Department of Electrical & Electronics Engineering**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru -562157**  
**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO9001:2008 Certified)



Off International Airport Road, Krishnadevaraya Nagar, Bengaluru -562157


Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled **"TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT"** carried out. **BHARATH MADIVALR** USN: 1MV20EE015, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2023- 2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. C V Mohan  


  
Signature of HOD  
Dr. Suresh H L

DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
(Via) Yelohanka, Bengaluru - 562 157

  
PRINCIPAL

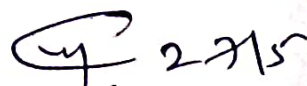

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C. V. Mohan
2. Dr. M. Anand P

 27/5  
 28/5/24



**VINAYAKA INTERNATIONAL UNIVERSITY**

*Wishamam - Bangalore - 560011*



**Internship Report**

**on**

**TRAINING ON TRAVERSE CURRENTS & SWITCHGEAR PANEL  
REPAIRING**

**submitted in partial fulfillment of the requirements for the award of the degree of**

**BACHELOR OF ENGINEERING**

**in**

**ELECTRICAL & ELECTRONIC ENGINEERING**

**Submitted by**

**RAJAN P M**

**USN: EEEV20E010**

**Under the Guidance of**

**Internal Guide**

**Dr. C. V. Mahan**

**Associate Professor,**

**Electrical & Electronics Engineering,**

**SV MIT, Bengaluru**

**External Guide**

**Mr. P. Subramanya**

**Unit,**

**Kyans Electrical Industries,**

**Bengaluru**



**Department of Electrical & Electronics Engineering**

**SIR M. VINAYAKA INSTITUTE OF TECHNOLOGY**

**(Approved by AICTE New Delhi, Affiliated to VTU, Bangalore, 1st Round-2008 Certified)**

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**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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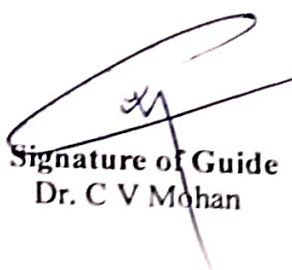
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

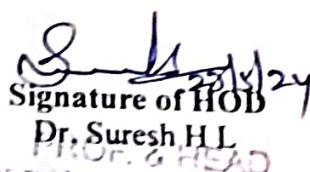
Department of Electrical & Electronics Engineering

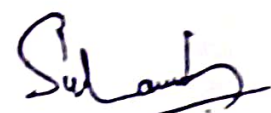


## CERTIFICATE

Certified that the internship entitled "TESTING OF 11KV CIRCUIT BREAKERS & SWITCHGEAR PANEL BOARDS" carried out by Mr. BHUVAN PM USN 1MV20EE016, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. C V Mohan

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
International Airport Road, Bangalore-562 157

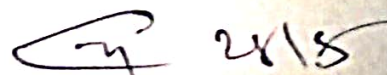
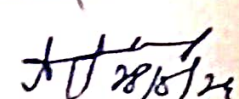
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
(VIR) Krishnadevaraya, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr. Harjunt Bati

 28/5  
 28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report On "INDUSTRIAL COMMUNICATION PROTOCOLS"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**CHAITHRA K M**  
USN: 1MV20EE017

Under the Guidance of

Internal Guide  
**Dr. C V Mohan**  
Associate Professor,  
Electrical & Electronics Engineering,  
Sir MVIT, Bengaluru.

External Guide  
**Mr. Prashanth**  
Lead Manager,  
Harmonizer India Private Limited,  
Sunkadakatte, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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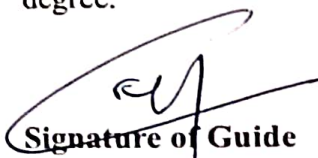
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## Department of Electrical & Electronics Engineering



### CERTIFICATE

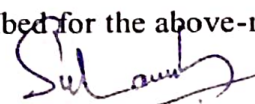
Certified that the internship entitled “**INDUSTRIAL COMMUNICATION PROTOCOL**” carried out by Ms. CHAITHRA K M, USN 1MV20EE017, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide

Dr. C V Mohan

  
Signature of HOD

Dr. Suresh H L  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yalahanka, Bengaluru - 562 157

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal



Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr. ~~Suresh~~ Madhu

 27.15/24  
 27.15/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama," Belagavi-590 018



Internship Report

on

**"BRIEF OVERVIEW OF DEPARTMENTAL PROCEDURES  
AND OPERATION IN BMRCL"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**CHAITHRA R**

**USN: 1MV20EE018**

Under the Guidance of

Internal Guide

**Dr. C V Mohan**

Associate Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide

**Maruthi M Naik**

Deputy Chief Engineer,  
BMRCL  
Shantinagar, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



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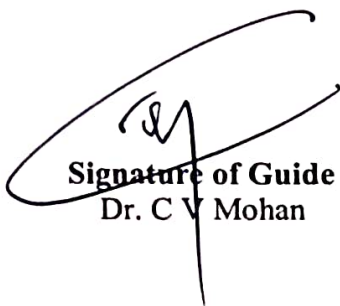
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## Department of Electrical & Electronics Engineering

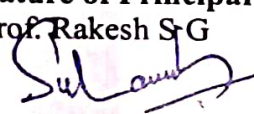


### CERTIFICATE

Certified that the internship entitled “**BRIEF OVERVIEW OF DEPARTMENTAL PROCEDURES AND OPERATION IN BMRCL**” carried out by Ms. CHAITHRA R , USN 1MV20EE018, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. C V Mohan

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahanahalli  
(Via) Yelahanka, Bengaluru - 562 157

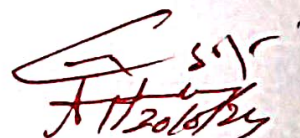
Signature of Principal  
Prof. Rakesh S G  
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahanahalli  
International Airport Road - Bangalore-562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C V Mohan
2. Dr. Manjunath Bhat

  
22/04/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

“Jnana Sangama”, Belagavi-590 018



## **Internship Report on “TRANSMISSION AND DISTRIBUTION”**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**CHANDU J**  
**USN:1MV20EE019**

Under the Guidance of

**Internal Guide**  
**Mrs. D. Beula**  
Associate professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Ramachandra R**  
Assistant Executive Engineer,  
220/66/11KV Receiving Station,  
Madhugiri, Tumkur.



**Department of Electrical & Electronics Engineering**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



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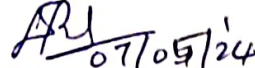
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Department of Electrical & Electronics Engineering

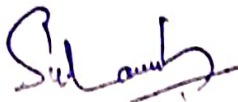


## CERTIFICATE

Certified that the internship entitled "TRANSMISSION AND DISTRIBUTION" carried out by **Mr. CHIANDU J USN 1MV20EE019**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
07/05/24  
Signature of Guide  
Mrs. D. Beula

  
07/05/24  
Signature of HOD  
HOD, Suresh H LAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Humnashanahalli  
International Airport Road, Bangalore-562 157  
Prof. Rakesh S G


DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Humnashanahalli  
(Via) Yalahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners

1. e v mohan
2. Dr. madhu p

Signature with Date

  
28/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on  
**"TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT"**  
submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**CHETHAN H J**  
**USN: 1MV20EE020**

Under the Guidance of

**Internal Guide**  
**Mrs. D. Beula**  
Associate Professor  
Electrical & Electronics Engineering  
Sir MVIT, Bengaluru

**External Guide**  
**Mr. Shivappa V.Sobard**  
Assistant Engineer  
O&M Division GESCOM,  
Munirabad, Koppal



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY

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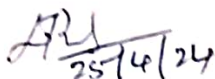
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering

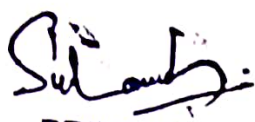


## CERTIFICATE

Certified that the internship entitled "**TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT**" carried out by **Mr. CHETHAN H J, USN 1MV20EE020**, a bonafide student of **Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
25/4/24  
Signature of Guide  
Mrs. D Beula

  
Signature of HOD  
Dr. Suresh H L  
PRINCIPAL & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarmanahalli  
International Airport Road, Bangalore-562 157

DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarmanahalli  
(Via) Yalahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners


Signature with Date

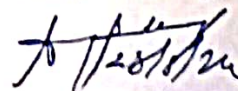
1.

C V Mohan

2.

Dr. Manjunath Babu

  
28/10

  
28/10/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report On**

## **"SUBSTATION MAINTENANCE"**

submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**NIKHIL G**

**USN:1MV21EE421**

Under the Guidance of

Internal Guide

**Ms. P. Kezia Joy Kumari**

Assistant Professor,

Electrical & Electronics Engineering,

Sir. MVIT, Bengaluru.

External Guide

**Smt. Smitha U**

Assistant Executive Engineer,

K.P.T.C.L. 220 kV

NRS Division Rajajinagar, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023–2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “SUBSTATION MAINTENANCE” carried out by Mr. NIKHIL G USN 1MV21EE421, a bonafide students of SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Ms. P. Kezia Joy Kumari

Signature of HOD  
Dr. Suresh HLD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hupasanahalli  
(Via) Yelahanka, Bengaluru - 562 157

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hupasanahalli  
International Airport Road, Bangalore-562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C.V. rohan
2. Dr. Madhu . p

27.5  
 27/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Joana Sangama", Belagavi-590 018



**Internship Report**

**on**

**"TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**D S ANIL KUMAR**

**USN: 1MV20EE021**

Under the Guidance of

Internal Guide

**Mrs. D. Beula**

Associate Professor

Electrical & Electronics Engineering

Sir MVIT, Bengaluru

External Guide

**Mr. Shivappa V.sobard**

Assistant Engineer

O&M Division GESCOM,

Munirabad, Koppal



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



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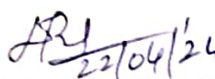
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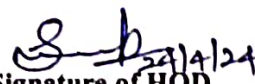
Department of Electrical & Electronics Engineering



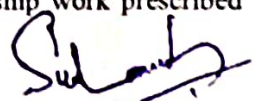
## CERTIFICATE

Certified that the internship entitled "**TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT**" carried out by Mr. D S ANIL KUMAR, USN 1MV20EE021, a bonafide student of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. D Beula

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarmanahalli  
(Via) Yelchanka, Bengaluru - 562 157

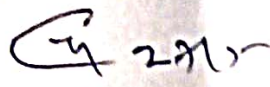
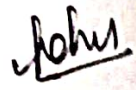
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarmanahalli  
International Airport Road, Bengaluru - 562 157  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V m i h m
2. Dr. Madhu P

  
 22/5/2024



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

**"STUDY ON SUBSTATION MAINTENANCE"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**DEEKSHA S**

**USN:1MV20EE022**

Under the Guidance of

**Internal Guide**

**Mrs. D Beula**

Associate Professor,  
Electrical & Electronics Engineering,  
Sir. M.VIT, Bengaluru.

**External Guide**

**Mr. Lakshminarayan**

Assistant Executive Engineer,  
Nodal officer TL&SS,  
KPTCL, Chikkaballapur.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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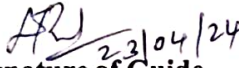
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “STUDY ON SUBSTATION MAINTENANCE” carried out by **Ms. DEEKSHA S USN 1MV20EE022**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. D Beula

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
(Via) Yelahanka, Bengaluru - 562 157

**EXTERNAL VIVA**

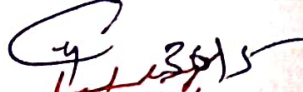
  
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SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
Internal Library, Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1. Dr. C R Mohan
2. Dr. Manjunath Babu

  
20/05/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

**"STUDY ON SUBSTATION MAINTENANCE"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**DIVYA K S**

**USN: 1MV20EE025**

Under the Guidance of

**Internal Guide**

**Mrs. D Beula**

Associate Professor,  
Electrical & Electronics Engineering,  
Sir. M.VIT, Bengaluru.

**External Guide**

**Mr. Lakshminarayan**

Assistant Executive Engineer,  
Nodal officer TL&SS,  
KPTCL, Chikkaballapur.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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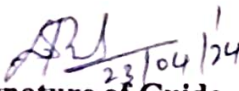
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

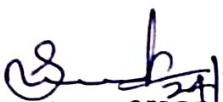
Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “STUDY ON SUBSTATION MAINTENANCE” carried out by Ms. DIVYA K S, USN 1MV20EE025, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. D Beula

  
Signature of HOD  
Dr. Suresh H L  
PROV. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157



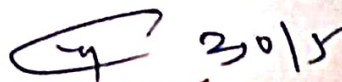
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C R Mohan
2. Dr. Manjunath Reddy

  
30/5  
Attended



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "COMPONENT SYSTEM ENGINEERING "**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**DHANUSH R**  
**USN: 1MV20EE023**

Under the Guidance of

**Internal Guide**  
**Mrs. D. Beula**  
Associate Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

**External Guide**  
**Mr. Shiva Kumar**  
Senior engineer,  
Simpleenergy pvt.ltd,  
Yelahanka, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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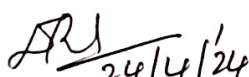
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


## Department of Electrical & Electronics Engineering

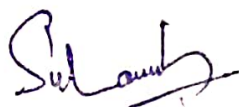


### CERTIFICATE

Certified that the internship entitled “COMPONENT SYSTEM ENGINEERING” carried out by Mr. DHANUSH R USN 1MV20EE023, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. D. Beula

  
Signature of HOD  
Dr. Suresh H. L.

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S. G.

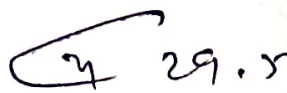

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr. Madhu P

  
29.5  
  
28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report**

on

## **"OVERVIEW OF ORGANISATIONAL STUDY OF ELECTRICAL RECEIVING STATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**DISHA A PATIL**

**USN:1MV20EE024**

Under the Guidance of

Internal Guide

**Mrs. D Beula**

Associate Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide

**Mr. Rohan Prakash Dsouza**

Assistant Manager,  
Bharat Electronics Limited,  
Jala Halli, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



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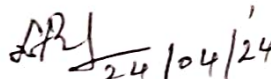
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Department of Electrical & Electronics Engineering



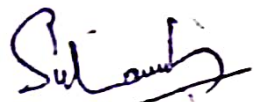
## CERTIFICATE

Certified that the internship entitled “OVERVIEW OF ORGANISATIONAL STUDY OF ELECTRICAL RECEIVING STATION” carried out by Ms. DISHA A PATIL USN 1MV20EE024, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. D Beula

  
Signature of HOD  
Dr. Suresh H. LEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

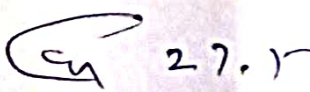
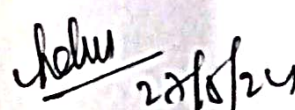
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
Inter Regional Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V m o h n
2. Dr madhu p

 27.11  
 28/10/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



Internship Report

on

**"ELECTRICAL POWER AND CONTROL OF WHEEL AND AXLE SHOP"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**DRUTHI N**

**1MV20EE026**

Under the Guidance of

Internal Guide

**Mrs. D Beula**

Associate Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide

**Mr. Ajit Kumar**

Dy CME-TQM Principal  
TTC, Rail Wheel Factory,  
Yelahanka, Bengaluru



Department of Electrical & Electronics Engineering

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



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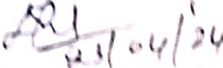
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "ELECTRICAL POWER AND CONTROL OF WHEEL AND AXLE SHOP" carried out by Ms. DRUTHI N, USN 1MV20EE026, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Gulde  
Mrs. D Beula

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
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International Airport Road, Bengaluru-562157


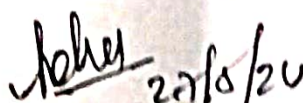
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunteamaranahalli  
(Via) Yelahanka, Bengaluru - 562157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V m h n
2. Dr. madhu p

 27.5  
 27/8/20



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "UNDERSTANDING POWER SUB-STATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**FAHIM KHAN**  
USN: 1MV20EE027

Under the Guidance of

Internal Guide  
**Dr. R. Sivapriyan**  
Associate Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide  
**Mr. Vijayamohan T**  
Senior Maintenance Manager,  
Bangalore International Airport Limited,  
Devanahalli, Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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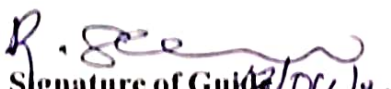
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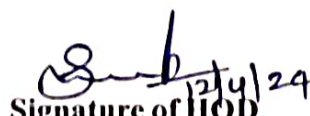
## Department of Electrical & Electronics Engineering

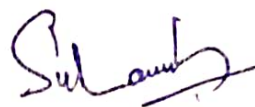


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Signature of Guide  
Dr. R. Sivapriyan

  
Signature of HOD  
Prof. Rakesh S G


  
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International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

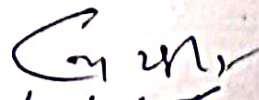
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarasanahalli  
(Via) Yelahanka, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. 
2. Dr. Manjunath Reddy ✓

  
A/H 28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report On "EMBEDDED SYSTEM AND IOT"**

Submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**GANGARAJU R**  
USN: 1MV20EE028

Under the Guidance of

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Associate Professor,  
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**Department of Electrical & Electronics Engineering**

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**2023-2024**



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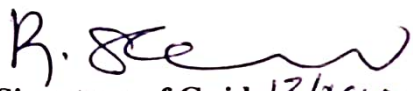
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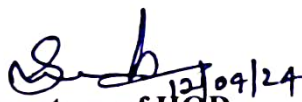
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled “EMBEDDED SYSTEM AND IOT” carried out by **Mr. GANGARAJU R** USN: 1MV20EE028, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide <sup>12/09/24</sup>  
Dr. R Sivapriyan

  
Signature of HOD  
DR. R. S. HOD  
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Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C. V. Mohan
2. Dr. Madhus P

  
  
22/09/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report**

on

## **"OVERVIEW OF COMBINED CYCLE POWER PLANT"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**GURIJALA SOMANATHA REDDY**

**USN:1MV20EE029**

Under the Guidance of

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Associate Professor,  
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**Mr. Chandra Sekhar**

General Manager,  
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**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Department of Electrical & Electronics Engineering



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Certified that the internship entitled **“OVERVIEW OF COMBINED CYCLE POWER PLANT”** carried out by **Mr. G SOMANATHA REDDY USN 1MV20EE029**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
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Dr. R Sivapriyan

  
Signature of HOD  
PROF. SHREYAS  
HEAD

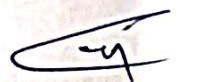
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Krishnadevarayanagar, Hunasamaranahalli  
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### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V mohan
2. Dr. madhu p

 27.5

 22/5/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama," Belagavi-590 018



Internship Report

on

**"BRIEF OVERVIEW OF DEPARTMENTAL PROCEDURES  
AND OPERATION IN BMRCL"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**H KEERTANA**

**USN: 1MV20EE030**

Under the Guidance of

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Electrical & Electronics Engineering,

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**Maruthi M Naik**

Deputy Chief Engineer,

BMRCL

Shantinagar, Bengaluru.



**Department of Electrical & Electronics Engineering**

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## Department of Electrical & Electronics Engineering



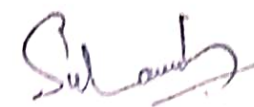
### CERTIFICATE

Certified that the internship entitled "**BRIEF OVERVIEW OF DEPARTMENTAL PROCEDURES AND OPERATION IN BMRCL**" carried out by **Ms. H KEERTANA**, USN 1MV20EE030, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide 22/4/24  
Dr. R Sivapriyan

  
Signature of HOD 22/4/24  
Dr. Suresh H D

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
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SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. W. Mohan
2. Dr. Manjunath Babu

  
20/4/24  
  
20/4/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report  
on  
**"VEHICLE ACCIDENT MONITORING SYSTEM USING IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**HARSHITH K M**  
USN: 1MV20EE031

Under the Guidance of

Internal Guide  
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Associate Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide  
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Technical Manager,  
NRET,  
Mathikere, Bengaluru.



Department of Electrical & Electronics Engineering

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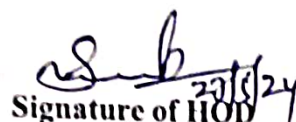
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the Internship entitled "VEHICLE ACCIDENT MONITORING SYSTEM USING IOT" carried out by Mr. HARSHITH K M USN 1MV20EE031, a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
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Dr. R Sivapriyan

  
Signature of HOD  
Dr. Suresh H L

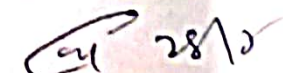
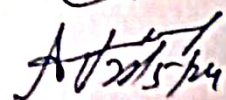
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru-562157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

1. Dr. C. V. Mohan
2. Dr. Manjula Bhat

Signature with Date

  
28/12  
  
28/12/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report**

On

## **"EMBEDDED SYSTEM AND IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**HARSHITHA BP**

**USN:1MV20EE032**

Under the Guidance of

Internal Guide

**Dr. R Sivapriyan**  
Associate Professor,  
Electrical & Electronics Engineering  
Sir. MVIT, Bengaluru.

External Guide

**Mr. Abdulnabi Kembavi**  
Director,  
Mifratech OPC Private Ltd,  
Yelahanka New Town, Bengaluru.



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Department of Electrical & Electronics Engineering



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Dr. R Sivapriyan

Signature of HOD  
Dr. Syresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGS.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramorenahalli  
(Via) reishanka, Bengaluru - 562 157

**EXTERNAL VIVA**

PRINCIPAL

Signature of Principal  
Prof. Rakesh S G  
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Krishnadevarayanagar, Hunsuramorenahalli  
International Airport Road, Bengaluru - 562 157

Name of Examiners

Signature with Date

1. Dr. C.V. Mohan
2. Dr. Madhu.p

27/5

27/5/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnanam Sangama," Belagavi-590 018



## Internship Report

ON

## "STUDY OF SOLAR PHOTOVOLTAIC POWER PLANT EQUIPMENT"

submitted in partial fulfillment of the requirements for the award of the degree of

### BACHELOR OF ENGINEERING

IN

### ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**K VAMSHI KRISHNA**

USN: 1MV20EE033

Under the Guidance of

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Deputy Manager,

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Department of Electrical & Electronics Engineering

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Department of Electrical & Electronics Engineering



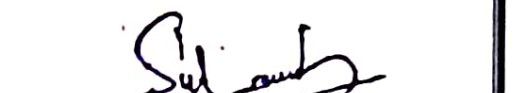
## CERTIFICATE

Certified that the internship entitled “STUDY OF SOLAR PHOTOVOLTAIC POWER PLANT EQUIPMENT” carried out by Mr. K VAMSHI KRISHNA USN 1MV20EE033, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
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Signature of HOD  
Dr. Suresh H L

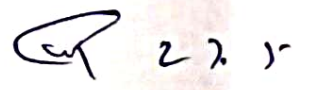
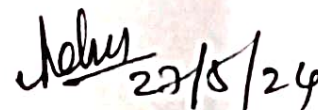
PROF. & HEAD  
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**EXTERNAL VIVA**

  
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Bengaluru - 562 157

Name of Examiners

Signature with Date

1. C V Mahy
2. Dr. Madhu p

 22.5  
 22/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report On "EMBEDDED SYSTEM AND IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**KARTHIK K RATHOD**  
USN: 1MV20EE034

Under the Guidance of

Internal Guide  
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External Guide  
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**Department of Electrical & Electronics Engineering**

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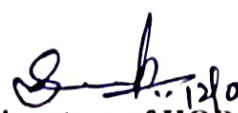
## Department of Electrical & Electronics Engineering




### CERTIFICATE

Certified that the internship entitled “EMBEDDED SYSTEM AND IOT” carried out by **Mr. KARTHIK K RATHOD** USN: 1MV20EE034, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. R Sivapriyan  
2/6/24

  
Signature of HOD  
Dr. Suresh H L  
12/04/24

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

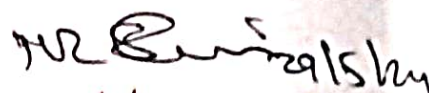

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SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Siddanna M
2. Dr. Madhu Palati

  
29/5/24  
  
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**  
**on**  
**"OVERVIEW OF ORGANISATIONAL STUDY OF ELECTRICAL  
RECEIVING STATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**KETAN N BABA**  
**USN:1MV20EE035**

Under the Guidance of

**Internal Guide**  
**Mrs. P Sumalatha**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Rohan Prakash Dsouza**  
Assistant Manager,  
Bharat Electronics Limited,  
Jala Halli, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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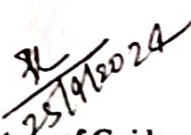
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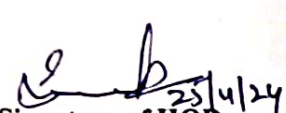
Department of Electrical & Electronics Engineering




## CERTIFICATE

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Signature of Guide  
Mrs. P Sumalatha

  
Signature of HOD  
Dr. Suresh H.L.

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bengaluru - 562 157  
Prof. Rakesh S G

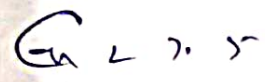
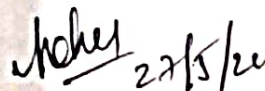
DEPT. OF ELECTRICAL & ELECTRONICS ENG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V mahay
2. Dr. madhup

  
  
27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "DEFENCE ELECTRONICS AND COMMUNICATION SYSTEM"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**KIRAN C N**  
**USN: 1MV20EE036**

Under the Guidance of

**Internal Guide**  
**Ms. P Sumalatha**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Balachander B**  
General Manager,  
Bharat Electronics Limited,  
Jalahalli, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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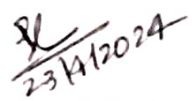
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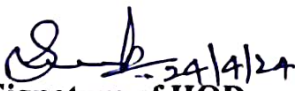
Department of Electrical & Electronics Engineering




## CERTIFICATE

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Signature of Guide  
Ms. P Sumalatha

  
Signature of HOD  
Dr. Suresh H L

PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahalalli  
(V.O) Yalahanka, Bengaluru - 562 157


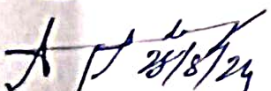
  
PRINCIPAL  
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Krishnadevarayanagar, Hunsuramahalalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V mohan
2. Dr. Manjunath Basha

 28/5  
 28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report on "STUDY OF SUBSTATION"**

submitted in partial fulfillment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**KUSUMA**  
**USN:1MV20EE037**

Under the Guidance of

#### **Internal Guide**

Mrs. P Sumalatha  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

#### **External Guide**

**Mrs. Kalyani N Madari**  
Assistant Executive Engineer,  
110/33/11k v substation, KPTCL  
South, Kalaburagi.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “STUDY OF SUBSTATION” carried out by Ms. KUSUMA USN 1MV20EE037, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

*24/4/2024*  
Signature of Guide  
Mrs. P SUMALATHA

*24/4/24*  
Signature of HOD

Dr. Suresh H L

PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Humasamaranahalli

(Via) Yelahanka, Bengaluru - 562 157

**EXTERNAL VIVA**

*Sul*  
PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Humasamaranahalli

International Airport Road, Bangalore-562 157

Signature of Principal

Prof. Rakesh S G

Name of Examiners

Signature with Date

1.

*Dr. C. V. Mohan*

2.

*Dr. Manjunath Reddy*

*30/5*  
*24/5/24*



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "STUDY OF SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**MADAN GOWDA H**  
**USN: 1MV20EE038**

Under the Guidance of

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Assistant Professor,  
Sir. MVIT, Bengaluru.

**External Guide**  
**Ms. Lalitha N**  
Assistant Executive Engineer,  
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**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “STUDY OF SUBSTATION” carried out by Mr. MADAN GOWDA H, USN 1MV20EE038, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

*SL*  
*23/4/2024*  
Signature of Guide  
Ms. P Sumalatha

*SL*  
*23/4/24*  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramarahalli  
(Off) Yelahanka, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C. V. Mithun
2. Dr. Manjula Reddy

*SL*  
*26/5*  
*20/5/24*

*SL*  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramarahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "STUDY OF SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**MALAPPA**  
USN: 1MV20EE039

Under the Guidance of

**Internal Guide**  
**Ms. P Sumalatha**  
Assistant Professor,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Ms. Kalyani N Madari**  
Assistant Executive Engineer,  
KPTCL Kalaburagi.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “**STUDY OF SUBSTATION**” carried out by **Mr. MALAPPA**, USN 1MV20EE039, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

*06/10/2024*  
Signature of Guide  
Ms. P Sumalatha

*06/10/24*  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Hosur, Karnataka  
(Via) Yelahanka, Bengaluru - 562 157

**EXTERNAL VIVA**

*Sul*  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Hosur, Karnataka  
Internatl  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1. Dr. C V Mahan

2. Dr. Sujatha R

*03/10/24*  
*03/10/24*



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590018



**Internship Report**  
on  
**"TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT"**

Submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**MANJUNATH G C**  
**USN: 1MV20EE040**

Under the Guidance of

**Internal Guide**  
Mrs. P. Sumalatha  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M VIT, Bengaluru

**External Guide**  
Dr. Shivappa V. Subarad  
Assistant engineer (Ele)  
GESCOM Munirabad



**Department of Electrical & Electronics Engineering**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru -562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "TRANSMISSION AND DISTRIBUTION SYSTEM MANAGEMENT" carried out. MANJUNATH G C USN: 1MV20EE040, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2023- 2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. P. Sumalatha

  
Signature of HOD  
Dr. Suresh

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru -562157  
Signature of Principal  
Prof. Rakesh S G

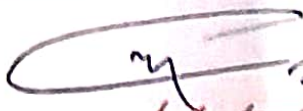
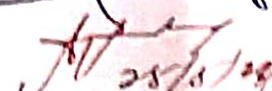
DEPT OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraichatti  
(Via) Yeshanka, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C. V. Mohan
2. Dr. Manjunath G C

 28/5  
 28/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report**

**on**

**"ENCODERS FOR THE MEASUREMENT OF ANGLE IN LOCOMOTIVE  
EQUIPMENT"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**MANU PATIL**

**USN: 1MV20EE041**

Under the Guidance of

**Internal Guide**

**Mrs. P. Sumalatha**

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Electrical & Electronics Engineering,  
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**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru 562157

**2023 – 2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


## Department of Electrical & Electronics Engineering

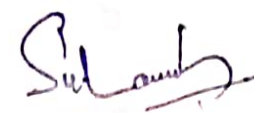


### CERTIFICATE

Certified that the internship entitled “ENCODERS FOR THE MEASUREMENT OF ANGLE IN LOCOMOTIVE EQUIPMENT” carried out by Mr. MANU PATIL, USN 1MV20EE041, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report deposited in the department library. The internship work report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above- mentioned degree.

  
Signature of Guide  
Mrs. P. Sumalatha

  
Signature of HOD  
Dr. Suresh H L

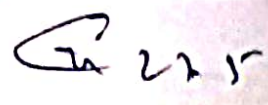
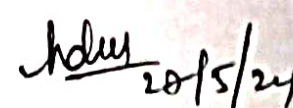
  
PRINCIPAL  
Signature of Principal  
Prof. Rakesh S. G.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, International Airport Road, Bengaluru-562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. CV mohan
2. Dr. masha

  
22/5  
  
20/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



## **Internship Report On**

## **"STUDY OF SUBSTATION MAINTENANCE"**

submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SUCHITHRA J**  
**USN:1MV21EE443**

Under the Guidance of

### **Internal Guide**

**Mrs. Harshithananda B**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

### **External Guide**

**Mr. Rudresh**  
Assistant Executive Engineer,  
220/66/11 kV Substation,  
Hebbal, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023–2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled "STUDY OF SUBSTATION MAINTENANCE" carried out by Ms. Suchithra J, USN 1MV21EE443, a bonafide student of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Mrs. Harshithananda B

  
23/09/24  
Signature of HOD  
Dr. Suresh H L  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
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Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners	Signature with Date
1. Dr. V. M. M.	M 20/11
2. Dr. Manjunath B. B.	11/20/11



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report  
On**

## **"STUDY OF OPERATION AND MAINTENANCE OF SUBSTATION"**

submitted in partial fulfillment of the requirements for the award of the Degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**MONIKA M R**  
USN:1MV20EE046

Under the Guidance of

**Internal Guide**  
**Mr. KUMARASWAMY R**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Gnanesh Raj B R**  
Assistant Executive Engineer,  
220/66/11 kV Substation,  
Madhure, Hosadurga.



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023–2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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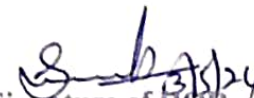
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "STUDY OF OPERATION AND MAINTENANCE OF SUBSTATION" carried out by Ms. MONIKA M R, USN 1MV20EE046, a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

 3/5/2024  
Signature of Guide  
Mr. Kumaraswamy R

 3/5/24  
Signature of HOD  
Dr. Suresh H L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

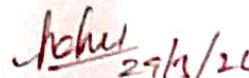
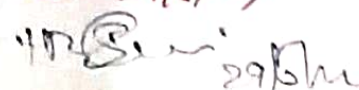
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGS.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Sindhu R. R.

 29/4/24  
 29/4/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on  
**"Stockport-Predictive Sentiment Analysis"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**NAGARJUNA M D**  
**USN:1MV20EE047**

Under the Guidance of

**Internal Guide**  
**Mr. Kumaraswamy R**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Ms. Spoorthi C**  
Director,  
Varcons Technologies Pvt. Ltd,  
Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "Stockport-Predictive Sentiment Analysis" carried out by **Mr. NAGARJUNA M D USN 1MV20EE047**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Kumaraswamy R

30/4/2024

  
Signature of HOD  
Dr. Suresh H L

PROF. & HEAD

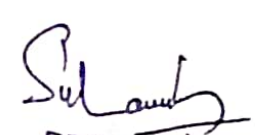
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Huttasamaranahalli

(Via) Yelchandra, Bengaluru - 562 157

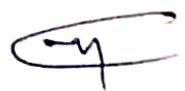
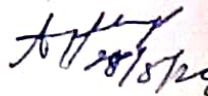
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SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Huttasamaranahalli  
International Airport Road, Bengaluru-562 157  
Prof. Rakesh S. G.

Name of Examiners

Signature with Date

1. C v mohay
2. Dr. Manjula Ravi

 28/5  
 28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

“Jnana Sangama”, Belagavi-590 018



Internship Report  
on  
**“STUDY ON SOLAR POWER PLANT”**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**NITEESH**  
**USN: 1MV20EE049**

Under the Guidance of

**Internal Guide**  
**Mr. Kumaraswamy R**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Rakesh C**  
Plant Incharge,  
N7 Energy Solutions,  
Bemalkeda, Bidar.



**Department of Electrical & Electronics Engineering**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**  
**2023-2024**



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Department of Electrical & Electronics Engineering



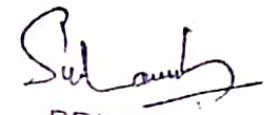
## CERTIFICATE

Certified that the internship entitled “**STUDY ON SOLAR POWER PLANT**” carried out by Mr. NITEESH, USN 1MV20EE049, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
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Mr. Kumaraswamy R

  
Signature of HOD  
Dr. Suresh H. L.  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
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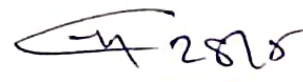
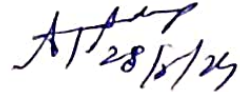
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C. V. Mohan
2. Dr. Manjula Bhat

  
28/5/24  
  
28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Bangama", Belagavi-590 018



## **Internship Report ON "SUPPLY MANAGEMENT AND BASICS OF SUBSTATION"**

submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**PUNITH M R**  
USN:1MV20EE054

Under the Guidance of

### **Internal Guide**

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Assistant Professor

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Sir. M.V.T., Bengaluru.

### **External Guide**

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Assistant Executive Engineer

Nodal officer KPTCL

Doddaballapura.



**Department of Electrical & Electronics Engineering**

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**2023 – 2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

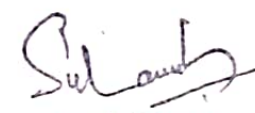
Certified that the Internship work entitled "*SUPPLY MANAGEMENT AND BASICS OF SUBSTATION*" carried out by Mr. PUNITH M R, USN: 1MV20EE054 bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Internship work report has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Ms. Bindiya Tyagi

  
Signature of HOD  
Dr. Suresh H. LEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Humnabad, Bengaluru  
(Off) International Airport Road, Bengaluru - 562 157

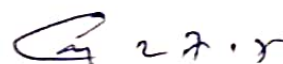
**EXTERNAL VIVA**

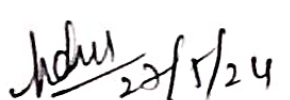
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Humnabad, Bengaluru  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1. C. V. Mohan
2. Dr. Madhup

  
27.8

  
28/5/24



**VISVESVARAYATECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report  
on  
EMBEDDED SYSTEM ("SMART PARKING SYSTEM USING IOT")**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**RAHUL KUMAR**  
USN:1MV20EE055

Under the Guidance of

Internal Guide  
**Mrs. Bindiya Tyagi**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide  
**Ms. Spoorthi C**  
Director,  
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**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled EMBEDDED SYSTEM (SMART PARKING SYSTEM USING IOT) carried out by RAHUL KUMAR, USN-1MV20EE055, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Bindiya Tyagi

  
Signature of HOD  
Dr. Buresh H L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, International Airport Road,  
Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh B G

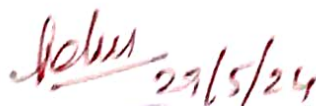

PROF. & HEAD  
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGG.  
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Krishnadevaraya Nagar, International Airport Road,  
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### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhus Palati
2. Dr. Siddhartha

 29/5/24  
 2/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**

**on**

## **"Stockport-Predictive Sentiment Analysis"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**RAJATH D A**

**USN:1MV20EE056**

Under the Guidance of

Internal Guide

**Mrs. Bindiya Tyagi**

Assistant Professor,

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Sir M.VIT, Bengaluru.

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Director,

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**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**




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**Department of Electrical & Electronics Engineering**

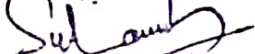


# CERTIFICATE

Certified that the internship entitled “**Stockport-Predictive Sentiment Analysis**” carried out by **Mr. RAJATH D A USN 1MV20EE056**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Bindia Tyagi

Signature of HOD  
Dr. Suresh H. LEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayana Nagar, Hutturamangalashali  
(Via) Yelahanka, Bangalore - 562 157

  
PRINCIPAL  
SR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Inl. **Signature of Principal** Bangalore-562 157  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

**Signature with Date**

1. CV Mohan
2. Dr. Majid E Rah

275  
11/28/84



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report**

**On**

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submitted in partial fulfillment of the requirements for the award of the Degree of

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**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**RAKESH B R**

**USN:1MV20EE057**

Under the Guidance of

**Internal Guide**

**Mrs. Bindiya Tyagi**

Assistant Professor,

Electrical & Electronics Engineering,

Sir. MVIT, Bengaluru.

**External Guide**

**Mr. Girisha Bestara**

Assistant Executive Engineer,

220/66/11 kV Substation,

Sira, Madhugiri



**Department of Electrical & Electronics Engineering**

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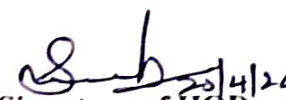
Department of Electrical & Electronics Engineering



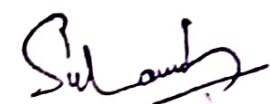
## CERTIFICATE

Certified that the internship entitled "STUDY OF OPERATION AND MAINTENANCE OF SUBSTATION" carried out by Mr. Rakesh B R, USN 1MV20EE057, a bonafide student of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Bindiya Tyagi

  
Signature of HOD  
Dr. Suresh H L

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
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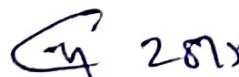
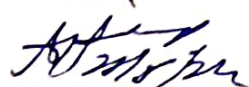
  
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International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mishra
2. Dr. Manjulk Bhat

 28/5  




**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**Internship Report**  
**on**  
**"SMART PARKING SYSTEM USING IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SANGAMESH T**  
**USN: 1MV20EE060**

Under the Guidance of

**Internal Guide**  
**Mrs. Bindiya Tyagi**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Ms. Spoorthi C**  
Director,  
Varcons Technologies Pvt. Ltd.,  
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**Department of Electrical & Electronics Engineering**

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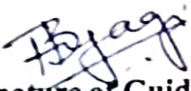
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Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "SMART PARKING SYSTEM USING IOT" carried out by SANGAMESH T, USN 1MV20EE060, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
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Mrs. Bindiya Tyagi

  
Signature of HOD  
Dr. Suresh H L

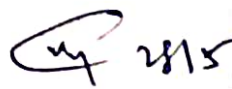
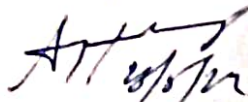
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V mohan
2. Dr. Manjula Reddy

 28/15  
 28/15



# **VISVESVARAYATECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report on EMBEDDED SYSTEM ("SMART PARKING SYSTEM USING IOT")**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SANIYA**

**USN:1MV20EE061**

Under the Guidance of

**Internal Guide**

**Ms. Bindiya Tyagi**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**

**Ms. Spoorthi C**

Director,  
Varcons Technologies Pvt. Ltd.,  
Ulsoor, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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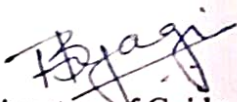
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

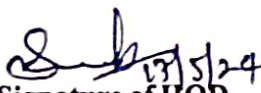
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled **EMBEDDED SYSTEMS SMART PARKING SYSTEM USING IOT** carried out by **SANIYA, USN1MV20EE061**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Ms. Bindiya Tyagi

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunesamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157


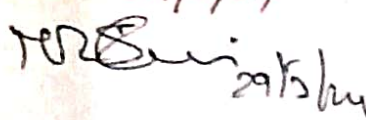
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunesamaranahalli  
Internal Signature Post Bengaluru - 562 157  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddappa R. M.

 29/5/24  
 29/5/24



**VISVESVARAYATECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on  
**EMBEDDED SYSTEM ("SMART PARKING SYSTEM USING IOT")**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SANSKAR BHATT**  
**USN:1MV20EE062**

Under the Guidance of

Internal Guide

**Mr. Bhaskar C**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide

**Ms. Spoorthi C**

Director,  
Varcons Technologies Pvt. Ltd.,  
Ulsoor, Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Department of Electrical & Electronics Engineering



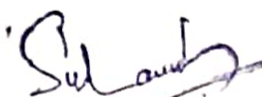
## CERTIFICATE

Certified that the internship entitled EMBEDDED SYSTEM ("SMART PARKING SYSTEM USING IOT") carried out by SANSKAR BHATT, USN-1MV20EE062, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

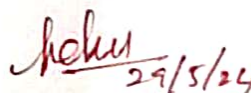
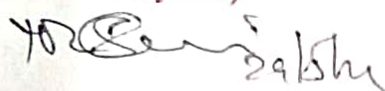
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddharth N R

  
29/5/24  
  
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

**"MANUFACTURING, ASSEMBLING AND TESTING OF 11kV CIRCUIT  
BREAKERS AND SWITCHGEAR PANEL BOARDS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SHRIKANT SAJJAN**

**USN:1MV20EE064**

Under the Guidance of

Internal Guide

**Mr. BHASKAR C**

Assistant Professor,

Electrical & Electronics Engineering,

Sir M.VIT, Bengaluru.

External Guide

**Mr. DAWOOD BEIG**

Quality and Assurance Department,

Mysore Electrical Industries,

Yashwanthpur, Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Department of Electrical & Electronics Engineering

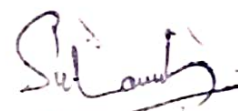


## CERTIFICATE

Certified that the internship entitled “MANUFACTURING, ASSEMBLING AND TESTING OF 11kV CIRCUIT BREAKERS AND SWITCHGEAR PANEL BOARDS” carried out by Mr. SHRIKANT SAJJAN USN 1MV20EE064, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

  
Signature of HOD  
Dr. Suresh H L



  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
K. S. Nagar, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C. V. Mohan
2. Dr. Mathu V

 27.12  
 28/12/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report**

on

### **"MANUFACTURING, ASSEMBLING AND TESTING OF 11kV CIRCUIT BREAKERS AND SWITCHGEAR PANEL BOARDS"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SMITA T PATIL**

**USN:1MV20EE065**

Under the Guidance of

Internal Guide

**Mr. BHASKAR C**

Assistant Professor,

Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru

External Guide

**Mr. Dawood Beig**

Quality and Assurance Department,  
Mysore Electrical Industries,  
Yeshwanthpur, Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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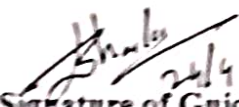
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Department of Electrical & Electronics Engineering

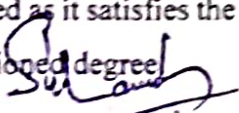


## CERTIFICATE

Certified that the internship entitled "MANUFACTURING, ASSEMBLING AND TESTING OF 11kV CIRCUIT BREAKERS AND SWITCHGEAR PANEL BOARDS" carried out by Ms. SMITA T PATIL USN 1MV20EE065, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramangaladi  
International Airport Road, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G



DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramangaladi  
(Via) Yelahanka, Bengaluru - 562157

## EXTERNAL VIVA

Name of Examiners

1. C.V. maharaj
2. Dr. madhu P

Signature with Date

 27.5  
 27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



## **Internship Report**

**on**

## **"SUPPLY MANAGEMENT AND BASICS OF SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

**SUBMITTED BY  
SPOORTHY  
USN:1MV20EE067**

**Under the Guidance of**

### **Internal Guide**

**Mr. Bhaskar C**

Assistant Professor

Electrical & Electronics Engineering

Sir. M.VIT, Bengaluru.

### **External Guide**

**Mrs. Suchita Lugun**

Assistant Executive Engineer

Nodal officer KPTCL

Doddaballapura.



**Department of Electrical & Electronics Engineering**

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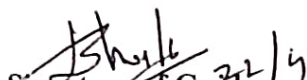
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the Internship work entitled "*SUPPLY MANAGEMENT AND BASICS OF SUBSTATION*" carried out by Ms. SPOORTHY USN 1MV20EE067, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Internship work report has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

  
Signature of HOD  
Dr. P. S. H. HEAD

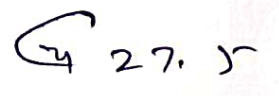
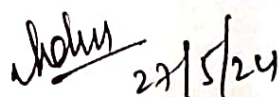
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157  
**EXTERNAL VIVA**

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1. C.V. Mohan
2. Dr. Madhu P

 27.5  
 27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

**"SUPPLY MANAGEMENT AND BASICS IN SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SRUJANA C R**

**USN:1MV20EE068**

Under the Guidance of

Internal Guide

**Mr. Bhaskar C**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide

**Ms. Suchita Lugun**

Assistant executive officer,  
Nodal Officer KPTCLL,  
Doddaballapura.



**Department of Electrical & Electronics Engineering**

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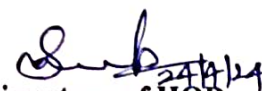
## Department of Electrical & Electronics Engineering

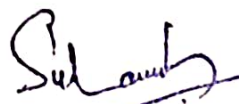


### CERTIFICATE

Certified that the internship entitled “SUPPLY MANAGEMENT AND BASICS IN SUBSTATION” carried out by Ms. SRUJANA C R USN 1MV20EE068, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
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Mr. Bhaskar C

  
Signature of HOD  
Dr. Suresh H L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
International Airport Road, Bangalore-562157  
Signature of Principal  
Prof. Rakesh S G

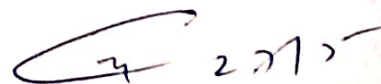

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
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Krishnadevarayanagar, Hunsuramaraiahalli  
(Via) Yelchandur, Bengaluru - 562157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C.V. Mohan
2. Dr. Madhu P

  
27/5/24  
  
27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“Jnana Sangama”, Belagavi-590 018**



## **Internship Report**

**on**

## **“STOCKPORT PREDICTIVE SENTIMENT ANALYSIS USING MACHINE LEARNING”**

submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

**IN**

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**UMASHREE R K**

**USN: 1MV20EE069**

Under the Guidance of

### **Internal Guide**

**Mr. Bhaskar C**

Assistant Professor

Electrical & Electronics Engineering,

Sir M.VIT, Bengaluru

### **External Guide**

**Mrs. Spoorthi H C**

Director

Varcons technologies Pvt.Ltd

Ulsoor, Bengaluru



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-24



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Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled “Stockport predictive sentiment analysis using machine learning” carried out by Ms. Umashree R K, USN 1MV20EE069, a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

  
Signature of HOD  
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SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamarehalli  
(Ma) Yelahanka, Bengaluru - 562 157



  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamarehalli  
Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C U molay
2. Dr. Manjula Bala

 21/1/24  




# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**  
**on**  
**"TEMPLATE FOR TECH STARTUP LANDING PAGE"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**USHA M S**  
**USN: 1MV20EE070**

Under the Guidance of

**Internal Guide**  
**Mr. Bhaskar C**  
Assistant Professor,  
Electrical & Electronics Engineering  
Sir M.VIT, Bengaluru

**External Guide**  
**Mrs. Spoorthi C**  
Director,  
Varcons technology Pvt Limited,  
MG Road, Ulsoor, Bengaluru



**Department of Electrical & Electronics Engineering**

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Department of Electrical & Electronics Engineering

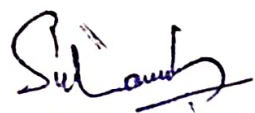


## CERTIFICATE

Certified that the internship entitled “**TEMPLATE FOR TECH STARTUP LANDING PAGE**” carried out by **Ms. USHA M S USN 1MV20EE070**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

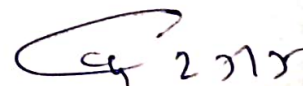
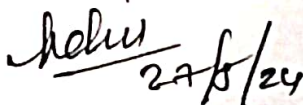
  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
Bengaluru - 562157  
**EXTERNAL VIVA**

  
Signature of Principal  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bangalore-562157

Name of Examiners

Signature with Date

1. Dr. C.V. Mohan
2. Dr. Madhusrip

  
27/5  
  
27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report**

on

## **"STUDY AND MAINTENANCE OF SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**UTTAM AMBAPPA BHAVIMANI**

**USN:1MV20EE072**

Under the Guidance of

Internal Guide

**Dr. Siddappaji M R**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide

**Mr. S R Hajeri**

Assistant Executive Engineering,  
Nodal Officer KPTCL,  
Vijayapura.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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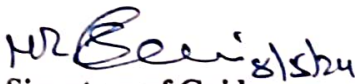
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

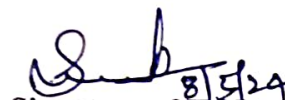
## Department of Electrical & Electronics Engineering



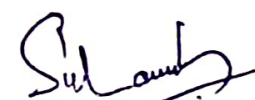
### CERTIFICATE

Certified that the internship entitled “**STUDY AND MAINTENANCE OF SUBSTATION**” carried out by **Mr. UTTAM AMBAPPA BHAVIMANI** USN 1MV20EE072, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2023-2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the internship report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Siddappaji M R

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
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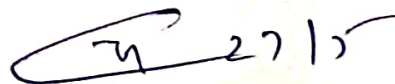
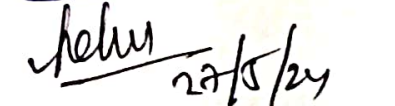
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C.V. Mohan
2. Dr. Madhu . P

 27/5  
 27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**  
on  
**"TEMPLATE FOR TECH STARTUP LANDING PAGE"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**V NIRANJAN**  
**USN: 1MV20EE073**

Under the Guidance of

**Internal Guide**  
**Dr. Siddappaji M R**  
Assistant Professor,  
Electrical & Electronics Engineering  
Sir. M.VIT, Bengaluru

**External Guide**  
**Mrs. Spoorthi C**  
Director,  
Varcons Technology Pvt.Limited  
MG Road, Ulsoor, Bengaluru



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



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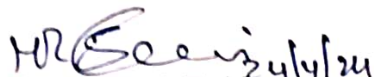
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


## Department of Electrical & Electronics Engineering




### CERTIFICATE

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Signature of Guide  
Dr. Siddappaji M R

  
Signature of HOD  
Dr. Suresh H B  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
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Krishnadevarayanagar, Hunsamaranahalli  
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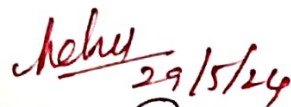
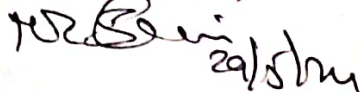
  
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International Airport Road, Bangalore-562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddappaji M R

  
29/5/24  
  
29/5/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama," Belagavi-590 018



Internship Report

on

## "SENTIMENT ANALYSIS OF LOCKDOWN IN INDIA DURING COVID-19 A CASE STUDY"

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**V ROHITH**

**USN: 1MV20EE074**

Under the Guidance of

Internal Guide

**Dr. Siddappaji M R**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide

**Mr. Nithin K S**

Project Manager,  
Compsoft Technologies,  
Rajajinagar, Bengaluru.



Department of Electrical & Electronics Engineering

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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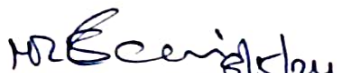
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

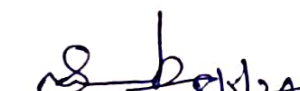
Department of Electrical & Electronics Engineering



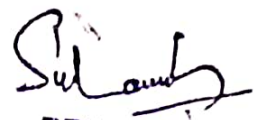
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Dr. Siddappaji M R

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

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Krishnadevarayanagar, Hunsasamranahalli  
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PRINCIPAL  
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Krishnadevarayanagar, Hunsasamranahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakash S G


## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V mohay
2. Dr. padhu

 27.5

 28/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report**

**on**

**"ROTATIONAL SPEED SENSORS USED IN THE TRACTION MOTORS  
FOR THE CONTROL OF ELECTRIC LOCOMOTIVES"**

Submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**VAIBHAVI D TANDEL**

**USN: 1MV20EE075**

Under the Guidance of

**Internal Guide**

**Dr. Siddappaji M.R**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

**External Guide**

**Mr. V Sadashivan**

Director (Technical)  
Advanced Rail Controls Pvt. Ltd,  
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**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru 562157**

**2023 – 2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

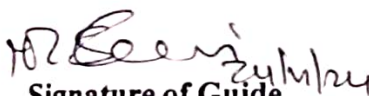
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "ROTATIONAL SPEED SENSORS USED IN THE TRACTION MOTORS FOR THE CONTROL OF ELECTRIC LOCOMOTIVES" carried out by **Ms. VAIBHAVI D TANDEL**, USN 1MV20EE075, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2023-2024**. It is certified that all corrections/suggestions indicated have been incorporated in the report deposited in the department library. The internship work report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above- mentioned degree.

  
Signature of Guide  
Dr. Siddappaji M.R.

  
Signature of HOD  
Dr. Suresh H L

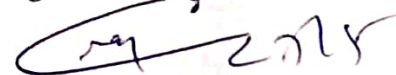
  
PRINCIPAL  
Signature of Principal  
Prof. Rakesh S.G.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
International Airport Road, Bengaluru - 562157

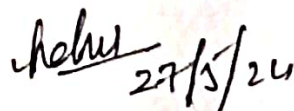
## EXTERNAL VIVA

Name of Examiners

1. Dr. C.V. Mohan
2. Dr. Madhu P

Signature with Date







# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama," Belagavi-590 018



Internship Report  
on  
"SENTIMENT ANALYSIS OF LOCKDOWN IN INDIA DURING  
COVID-19 A CASE STUDY"

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**VENKATA SUSHEEL VARMA**  
USN: 1MV20EE076

Under the Guidance of

Internal Guide  
Dr. Siddappa M R  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide  
Mr. Nithin K S  
Project Manager,  
Compsoft Technologies,  
Rajajinagar, Bengaluru.



Department of Electrical & Electronics Engineering

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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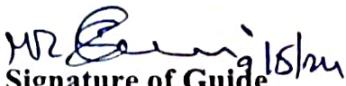
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## Department of Electrical & Electronics Engineering



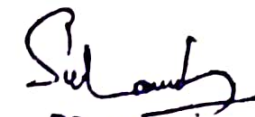
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Signature of Guide  
Dr. Siddappaji M R

  
Signature of HOD  
Dr. Suresh H I  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramaraiahalli  
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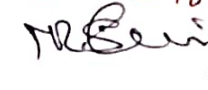
  
PRINCIPAL  
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International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhus Palati
2. Dr. Siddappaji M R

 29/5/24  
 29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

## **"SENTIMENT ANALYSIS OF LOCKDOWN IN INDIA DURING COVID-19 A CASE STUDY"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**YASHWANTH YADAV P S**

**USN: 1MV20EE077**

Under the Guidance of

Internal Guide

**Dr. Siddappaji M R**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide

**Mr. Nithin K S**

Project Manager,  
Compsoft Technologies,  
Rajajinagar, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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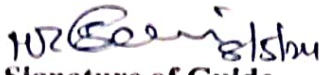
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "SENTIMENT ANALYSIS OF LOCKDOWN IN INDIA DURING COVID-19 A CASE" carried out by Mr. YASHWANTH YADAV P S, USN 1MV20EE077, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr. Siddappaji M R

  
Signature of HOD  
Dr. Suresh H L

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramranahalli  
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International Airport Road, Bangalore-562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddappaji M R

  
29/5/24  
  
29/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report  
on  
"SMART PARKING SYSTEM USING IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**YUVRAJ SINGH**  
USN: 1MV20EE078

Under the Guidance of

Internal Guide  
**Dr. Siddappa M.R**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide  
**Ms. Spoorthi C**  
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Ulsoor, Bengaluru.



Department of Electrical & Electronics Engineering

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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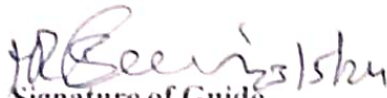
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Department of Electrical & Electronics Engineering

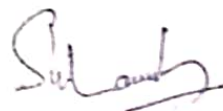


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Signature of HOD  
Dr. Suresh H.L.

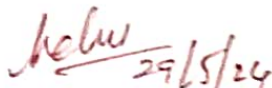
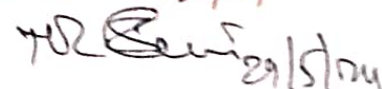
  
PRINCIPAL  
Signature of Principal  
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Krishnadevaraya Nagar, Bengaluru - 562157  
International Airport Road, Bangalore-562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddappaji M.R.

  
29/5/24  
  
29/5/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590018



## Internship Report On

### **"STUDY ON SUBSATATION MAINTENANCE"**

submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**AMRUTH KUMAR N**  
USN: 1MV21EE402

Under the Guidance of

Internal Guide  
**Mr. Pradeep kumar**  
Assistant Professor,  
Electrical & Electronics Engineering,  
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External Guide  
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Department of Electrical & Electronics Engineering

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru-562157

2023-2024



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Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "STUDY ON SUBSATATION MAINTENANCE" carried out by Mr. AMRUTH KUMAR N USN 1MV21EE402, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.


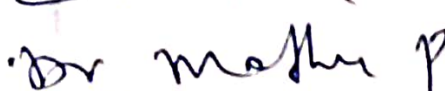
  
Signature of Guide  
Mr. Pradeep kumar

  
Signature of HOD  
Dr. Suresh H L

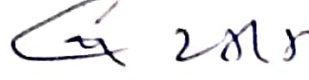

  
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Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

1. 
2. 

Signature with Date

 28/5/24  
 28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," belagavi-590 018



## **Internship Report**

on

## **"STUDY OF ELECTRICAL SWITCHGEAR EQUIPMENTS"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**ASHOKA K M**

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Under the Guidance of

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**Mr. Rakesh R**

Maintenance department  
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Department of Electrical & Electronics Engineering

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Signature of Guide  
Mr. Pradeep Kumar

  
Signature of HOD  
Dr. Suresh H L

  
Signature of Principal  
Prof. Rakesh B  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157

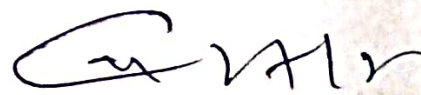
## EXTERNAL VIVA

Name of Examiners

Signature with Date

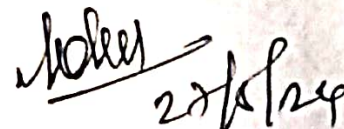
1.

C V Mahan



2.

Dr. Mahesh

  
22/04/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**  
on  
**"INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**B MADHU**  
USN: 1MV21EE404

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Yelahanka, Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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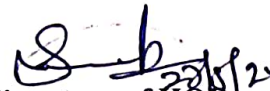
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled **"INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED"** carried out by **Mr. B MADHU**, USN 1MV21EE404, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Pradeep Kumar


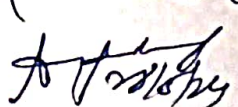
  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
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Signature of Principal  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1. CV Mohan  28/12
2. Dr. Manjunath Reddy  28/12/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report**

on

## **"WAREHOUSE MONITORING SYSTEM USING IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**BALAJI JC**

**USN: 1MV21EE405**

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**2023-2024**



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Department of Electrical & Electronics Engineering




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Signature of Guide  
Mr. Pradeep Kumar

  
Signature of HOD  
Dr. Suresh H L



  
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International Airport Road, Bangalore-562157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Sidda Prathima
2. Dr. Madhu Palati

  
  
29/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama," Belagavi-590 018



**Internship Report**  
on  
**"MANUFACTURING AND ASSEMBLY OF DIESEL GENERATOR SETS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
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**USN:1MV21EE406**

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**2023-2024**



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Department of Electrical & Electronics Engineering



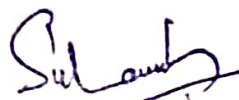
## CERTIFICATE

Certified that the internship entitled “MANUFACTURING AND ASSEMBLY OF DIESEL GENERATOR SETS” carried out by Mr. CHANDAN R USN 1MV21EE406, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. V. Rajesh Kumar

  
Signature of HOD  
Dr. Suresh HJ  
PROF. & HEAD


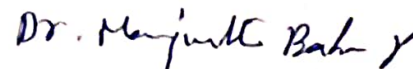
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Krishnadevarayanagar, Hunsuramahanahalli  
(Ma) Yelahanka, Bengaluru - 562 157

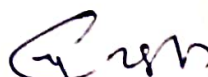

  
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International Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. 
2. Dr. Manjunath Bhat Y 



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on  
**"STUDY OF SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**CHETAN**  
USN: 1MV21EE407

Under the Guidance of

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**Mr. V Rajesh Kumar**  
Assistant Professor,  
Electrical & Electronics Engineering,  
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**External Guide**

**Mrs. Kalyani N Madari**  
Assistant Executive Engineer,  
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**Department of Electrical & Electronics Engineering**

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**2023-2024**



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## Department of Electrical & Electronics Engineering



### CERTIFICATE

Certified that the internship entitled “STUDY OF SUBSTATION” carried out by **Mr. CHETAN**, USN 1MV21EE407, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Bengaluru** in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Mr. V Rajesh Kumar

Signature of HOD  
Dr. Suresh H L

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Internal Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1.

Dr. V. M. N. N.

2.

Dr. Manjunath Bhat



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report  
On**

## **"SAFETY CONTROL OF CABLE"**

submitted in partial fulfillment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**CHETHAN KUMAR S  
USN:1MV21EE408**

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Assistant Professor,  
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**Mr. Devenadrappa**  
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**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023–2024**



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Department of Electrical & Electronics Engineering




## CERTIFICATE

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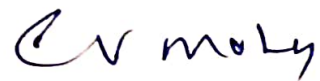

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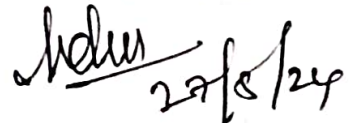
  
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Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. 
2. 



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report**

**on**

**"STUDY ON ELECTRICAL ARCHITECTURE AND FUNCTIONS OF  
VOLVO-EICHER VEHICLE"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

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**USN:1MV21EE409**

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**Department of Electrical & Electronics Engineering**

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**2023 – 2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “STUDY ON ELECTRICAL ARCHITECTURE AND FUNCTIONS OF VOLVO-EICHER VEHICLE” carried out by Ms. INDUMATHI K HIREMATH, USN 1MV21EE409, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report deposited in the department library. The internship work report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Mr. V Rajesh Kumar

Signature of HOD

Dr. Suresh H.L.

PROF. SYED  
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(Via) Yelahanka, Bengaluru - 562 157

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Signature of Principal  
Prof. Rakesh S.G.

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr. Masha



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama," Belagavi-590 018**



## **Internship Report on**

### **"STUDY OF SUBSTATION MAINTENANCE"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
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Under the Guidance of

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Signature of Guide

Mr. V Rajesh Kumar

Signature of HOD

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Prof. Rakesh S G

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Name of Examiners

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2. Dr. Manjula B. S.

  
28/12/24  
  
28/12/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "SUBSTATION MAINTENANCE"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

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Under the Guidance of

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**External Guide**

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Assistant Executive Engineer,  
KPTCL, Devanahalli,  
Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**  
**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)


Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

It is certified that the internship entitled "SUBSTATION MAINTENANCE" carried out by Mr. KISHOR HASIKARUSN:1MV21EE411, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated in Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. V Rajesh Kumar

  
Signature of HOD  
Dr. Suresh H L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarneranahalli  
Internal Airport Road, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

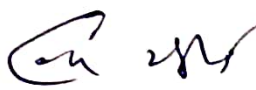
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarneranahalli  
(Via) Yelahanka, Bengaluru - 562157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Molek
2. Dr. Manjula Bhat

  
24/06/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," belagavi-590 018



## **Internship Report on "STUDY OF ELECTRICAL SWITCHGEAR EQUIPMENTS"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**LIKITH GOWDA H S**  
USN: 1MV21EE412

Under the Guidance of

Internal Guide  
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Assistant Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide  
**Mr. Rakesh R**  
Maintenance department,  
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Andrahalli, Bengaluru.



**Department of Electrical & Electronics Engineering**

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Department of Electrical & Electronics Engineering

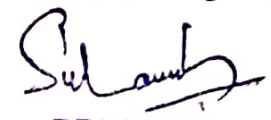


## CERTIFICATE

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Signature of Guide  
Mr. V. Rajesh Kumar

  
Signature of HOD  
Dr. Suresh H L

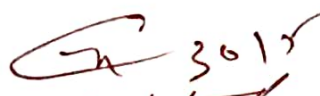
  
PRINCIPAL  
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Krishnadevarayanagar, Hunsur, Mysore  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C. Umohan
2. Dr. Manjunath Reddy

  
30/12/24  
  
30/12/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on  
**"INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**M MOHAN KUMAR**  
USN : 1MV21EE413

Under the Guidance of

**Internal Guide**

**Ms.P.Kezia Joy Kumari**  
Assistant Professor,  
Electrical & Electronics Engineering,  
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**External Guide**

**Mr. Anil Kumar**  
Assistant Engineer (Electrical),  
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Yelahanka, Bengaluru.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled "INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED" carried out by Mr. M MOHAN KUMAR, USN 1MV21EE413, a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Mrs.P.Kezia Joy Kumari

Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarasanahalli  
(Via) Yelahanka, Bengaluru - 562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. ev mah an
2. Dr. Manjunath Bhat

PRINCIPAL  
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International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

*"Jnana Sangama", Belagavi-590 011*



**Internship Report**

**on**

**"COMBINED CYCLE GAS POWER PLANT"**

*submitted in partial fulfillment of the requirements for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

*Submitted by*

**MANOJKUMAR L**

**USN: 1MV21EE415**

*Under the Guidance of*

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**Mrs. P. Kezla Joy Kumari**

**Assistant Professor**

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**External Guide**

**Mr. Gururaj**

**Chief Engineer(O&M), YCCPP**

**Kpc Gas Power Corporation Limited**

**Yelahanka, Bengaluru**



**Department of Electrical & Electronics Engineering**

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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “**COMBINED CYCLE GAS POWER PLANT**” carried out by Mr. MANOJKUMAR L USN-1MV21EE415, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

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Mrs. P. Kezia Joy Kumari

Signature of HOD  
Dr. Suresh H L

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Krishnadevarayanagar, Hunasamaranahalli  
Internal Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr. Masaru p

  
27/8/24  
  
27/8/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama," Belagavi-590 018



**Internship Report**  
**on**  
**"INDUSTRIAL COMMUNICATION PROTOCOLS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**MOHAMMED MAAZ**  
**USN: 1MV21EE416**

Under the Guidance of

Internal Guide  
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Assistant Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide  
**Mr Prashanth**  
Lead Manager,  
Harmonizer India Private Limited,  
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**Department of Electrical & Electronics Engineering**

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Department of Electrical & Electronics Engineering



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Ms P Kezia Joy Kumari

Signature of HOD  
Dr Suresh H L

PRINCIPAL

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Krishnadevaraya Nagar, Munasamaranahalli  
International Airport Road, Bengaluru-562157

Signature of Principal  
Prof Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Mr. V. V. Mohan
2. Dr. Manjunath Reddy

  
30/8  
  
11/30/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," belagavi-590 018



## **Internship Report**

on

## **"STUDY OF ELECTRICAL SWITCHGEAR EQUIPMENTS"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**MOHAMMED NAWAZ**  
**USN: 1MV21EE417**

Under the Guidance of

Internal Guide

**Ms. P. Kezia Joy Kumari**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

External Guide

**Mr. Rakesh R**  
Maintenance department  
Harsha Switchgears Pvt Ltd,  
Andrahalli, Bengaluru.



**Department of Electrical & Electronics Engineering**

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## Department of Electrical & Electronics Engineering



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Signature of Guide  
Ms. P. Kezia Joy Kumari

Signature of HOD  
Dr. Suresh H L

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarasanahalli  
Intern  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C V nuy
2. Dr. Manjula Babu



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama," Belagavi-590018



## Internship Report

on

## "STUDY OF SUBSTATION MAINTENANCE"

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**M V TEJASRI**

**USN: 1MV21EE419**

Under the Guidance of

### Internal Guide

**Mrs. P Kezia Joy Kumari**

Assistant Professors,

Electrical & Electronics Engineering,

Sir. MVIT, Bengaluru.

### External Guide

**Mr. Lakshminarayan**

Assistant Executive Engineer,

Nodal Officer TL & SS,

KPTCL, Chikkaballapur.



**Department of Electrical & Electronics Engineering**

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**2023-2024**



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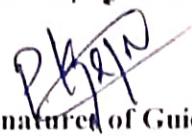
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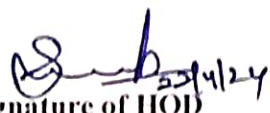
## Department of Electrical & Electronics Engineering



### CERTIFICATE

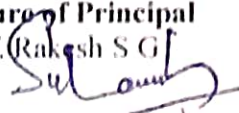
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Signature of Guide  
Mrs. P Kezia Joy Kumari

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
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Signature of Principal  
Prof. Raksh S G

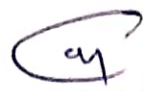
  
PRINCIPAL  
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Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bangalore-562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C V Mohan
2. Dr. Rajiv R

 30/5  
30/5/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama," Belagavi-590018



## Internship Report on

## "STUDY OF SUBSTATION MAINTENANCE"

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by  
**NAVYA D**

**USN:1MV21EE420**

Under the Guidance of

Internal Guide

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Assistant Professors,  
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External Guide

**Mr. Lakshminarayan**  
Assistant Executive Engineer,  
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**Department of Electrical & Electronics Engineering**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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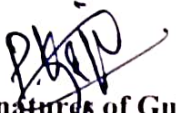
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Department of Electrical & Electronics Engineering



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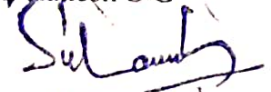
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Signatures of Guide  
Mrs. P Kezia Joy Kumari

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

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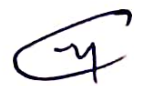

Signature of Principal  
Prof. Rakesh S G

  
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International Airport Road, Bangalore-562 157

Name of Examiners

Signature with Date

1. Dr. P. V. Mohan
2. Dr. Manjunath Bhat

 30/12/24  
 30/12/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report  
on  
"INDUSTRIAL COMMUNICATION PROTOCOLS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**NIKHIL.M. PATIL**  
USN: 1MV21EE422

Under the Guidance of

**Internal Guide**  
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**External Guide**  
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Lead Manager,  
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**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Department of Electrical & Electronics Engineering



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Signature of Guide  
Ms. Priyanka Nayak

  
Signature of HOD

PROF. RAKESH S G

DEPT OF ELECTRICAL & ELECTRONICS ENGS.  
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Name of Examiners

1. Dr. C.V. Mohan
2. Dr. Madhu P

Signature with Date

 27/5

 27/5/24

  
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Prof. Rakesh S G



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama,"Belagavi-590018



## **Internship Report**

on

### **"STUDY OF SUBSTATION MAINTENANCE"**

submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**POOJA K R**

**USN:1MV21EE423**

**Under the Guidance of**

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#### **External Guide**

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Mudhol, Bagalkote.



Department of Electrical & Electronics Engineering  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru-562157

**2023-2024**



# SIR M.VISVESVARAYA INSTITUTE OF TECHNOLOGY


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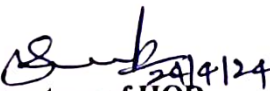
Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "STUDY OF SUBSTATION MAINTENANCE" carried out by **Ms. POOJA K R** USN 1MV21EE423, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi during the academic year **2023-2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signatures of Guide  
Mrs. Priyanka nayak

  
Signature of HOD  
Dr. Suresh H L



**PROF. & HEAD**  
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramarahalli  
(M) Yeshwanth, Bengaluru - 562 157

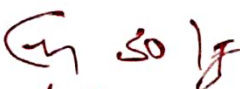
  
**PRINCIPAL**  
Signature of Principal  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramarahalli  
International Airport Road, Bangalore-562 157

### EXTERNAL VIVA

Name of Examiners

Signature with Date

1. 
2. 

  
11/30/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590018



## **Internship Report**

on

## **"STUDY OF ELECTRICAL SWITCHGEAR EQUIPMENTS"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

IN

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**PRAJWAL G**

**USN: 1MV21EE424**

Under the Guidance of



Internal Guide

**Mrs. Priyanka Nayak**

Assistant Professor,

Electrical & Electronics Engineering,

Sir M.VIT, Bengaluru.

External Guide

**Mr. Rakesh R**

Maintenance department,

Harsha Switchgears Pvt Ltd,

Andrahalli, Bengaluru.



Department of Electrical & Electronics Engineering

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

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Signature of Guide  
Mrs. Priyanka Nayak

Signature of HOD  
Dr. Suresh H L

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsur, Belagavi  
International Airport Road, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr. Manjunath Bhat



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report**

on

### **"IMPLEMENTATION OF AI BASED VISION SYSTEM TO IMPROVE PRODUCT QUALITY"**

submitted in partial fulfillment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**PRATEEK D**

**USN: 1MV21EE426**

Under the Guidance of

**Internal Guide**

**Mrs. Priyanka Nayak**

Assistant Professor,

Electrical & Electronics Engineering,

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**External Guide**

**SREEDHAR K**

Group Leader-Manufacturing,

**BOSCH AUTOMOTIVE**

**ELECTRONICS INDIA**

Pvt.Ltd., Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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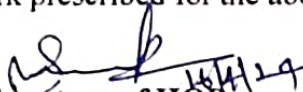
Department of Electrical & Electronics Engineering

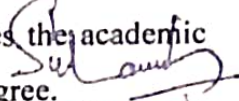


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Signature of Guide  
Mrs. Priyanka Nayak

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsur, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S.G

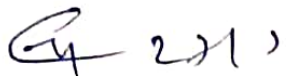

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsur, Bengaluru - 562157  
(Via) Hunsur, Bengaluru - 562157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mohan
2. Dr. Madhu P

 22/11/23  
 22/11/23



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangma", Belagavi-590 018**



## **Internship Report on**

### **"STUDY ON CNC MACHINES"**

submitted in partial fulfillment of the requirements for the award of the Degree of

### **BACHELOR OF ENGINEERING**

**IN**

### **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**PUNEETH C G**

**USN-1MV21EE427**

Under the Guidance of

Internal Guide

**Ms. Priyanka Nayak**

Assistant Professor.,

Electrical & Electronics Engineering.,

Sir M.VIT., Bengaluru

External Guide

**Mr. Manju Bhargav L**

Assistant Manager.,

Electrical Assembly,

Bharat Fritz Werner Ltd., Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

Certified that the internship entitled “**STUDY ON CNC MACHINE**” carried out by Mr. PUNEETH C G, USN-1MV21EE427, a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship work report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

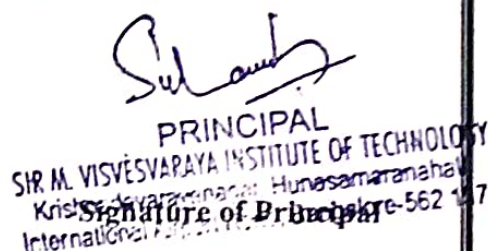
  
Signature of Guide

Ms. Priyanka Nayak

  
Signature of HOD

DR. SURESH H L  
HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Off International Airport Road, Krishnadevaraya Nagar,  
(Via) Yelahanka, Bengaluru - 562 157

EXTERNAL VIVA

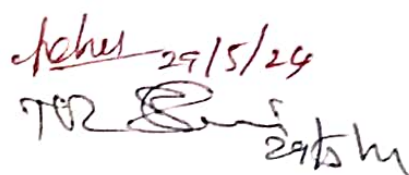
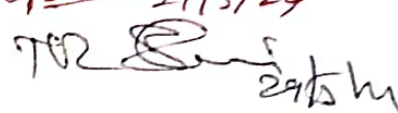
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Off International Airport Road, Krishnadevaraya Nagar,  
(Via) Yelahanka, Bengaluru - 562 157

Prof. Rakesh S G

Name Of Examiner

1. Dr. Madhus Palati
2. Dr. Siddappa D. NR

Signature with Date

  
29/5/24  
TNR   
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



## **Internship Report**

**on**

## **"SUPPLY MANAGEMENT AND BASICS OF SUBSTATION"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**PUNITH KUMAR T L**

**USN:1MV21EE428**

Under the Guidance of

### **Internal Guide**

**Mrs. Priyanka Nayak**

Assistant Professor

Electrical & Electronics Engineering

Sir MVIT, Bengaluru.

### **External Guide**

**Mrs. Suchita Lugun**

Assistant Executive Engineer

Nodal officer KPCL

Doddaballapura.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Internship work entitled "SUPPLY MANAGEMENT AND BASICS OF SUBSTATION" carried out by Mr. PUNITH KUMAR T L, USN: 1MV21EE428 bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Internship work report has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the above-mentioned degree.

Signature of Guide  
Mrs. Priyanka Nayak

Signature of Dr. Suresh H  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanganahalli  
(Via) Yalahanka, Bengaluru - 532 157

Signature of Principal  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanganahalli  
International Airport Road, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V Mithy
2. Dr. Rajul K Bhat

Signature with Date  
28/5



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report on "STUDY ON SUBSTATION MAINTENANCE"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**RITHESHKUMAR**  
**USN:1MV21EE430**

Under the Guidance of

**Internal Guide**

**Ms. Priyanka Nayak**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

**External Guide**

**Mr. LAKSHMAN S G**  
Executive Engineer,  
KPTCL Devanahalli,  
TL&SS Division Doddballapura.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled "STUDY ON SUBSTATION MAINTENANCE" carried out by Mr. RITHESH KUMAR USN 1MV21EE430, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Ms. Priyanka Nayak

Signature of HOD  
Dr. Suresh H L

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C V Mohan

2. Dr. Manjunath Reddy

  
3/11/24  
  
17/01/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report On

### "STUDY ON SUBSTATION MAINTENANCE"

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**ROOPESH N**

**USN:1MV21EE431**

Under the Guidance of

Internal Guide

**Mrs. Priyanka Nayak**

Assistant Professor,

Electrical & Electronics Engineering,

Sir. MVIT, Bengaluru.

External Guide

**Mr. Lakshman S G**

Executive Engineer,

K.P.T.C.L. 66/11 kV

TL&SS Division, Doddaballpur.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023–2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

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Signature of Guide  
Mrs. Priyanka Nayak

  
Signature of HOD  
Dr. Suresh H L

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, International Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C V M M M
2. Dr. Manjunatha Bhat

  
20/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report  
on**

**"STUDY ON SUBSTATION EQUIPMENTS"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SACHIN S KARAGI**  
**USN:1MV21EE432**

Under the Guidance of

**Internal Guide**  
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Sir. MVIT, Bengaluru.

**External Guide**  
**Mr. VIJAYA JOSHI**  
Assistant Executive Engineer,  
KPTCL, Ranebennur.



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Department of Electrical & Electronics Engineering



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Signature of Guide  
Mrs. Vijayalakshmi A. K

Signature of HOD  
Dr. Suresh H. L.

Signature of Principal  
Prof. Rakesh S G

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore  
(Via) Yelahanka, Bengaluru - 562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C V mth
2. Dr. Mathur

Signature with Date  
22/5/24  
22/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



## **Internship Report on "SUBSTATION MAINTENANCE"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SAQEEB PASHA  
USN: 1MV21EE434**

Under the Guidance of

**Internal Guide**

**Mrs. Vijayalakshmi A K**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.V.T.U, Bengaluru.

**External Guide**

**Mrs. Shashikala H**  
Executive Engineer (E.E.),  
400/220kV Substation,  
Devanahalli Hardware park,  
Bengaluru.



**Department of Electrical & Electronics Engineering  
Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Department of Electrical & Electronics Engineering



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Signature of Guide  
Mrs. Vijayalakshmi A K

Signature of HOD  
DR. R. S. R. SHARAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunesamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

PRINCIPAL  
Signature of Principal  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunesamaranahalli  
International Airport Road, Bangalore-562 157

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C. V. Mohan
2. Dr. Manjunath Babu

  
30/12/24  
A. H. R. S. S. S.



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report**

**on**

**"ORIENTATION ON NEUMERICAL RELAY FOR SUBSTATION  
AUTOMATION WHICH INCLUDES TESTING & DEBUGGING OF  
NEUMERICAL RELAY"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SARASWATI S S**

**USN: 1MV21EE435**

Under the Guidance of

**Internal Guide**

**Mrs. Vijayalakshmi. A.K**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir. MVIT, Bengaluru.

**External Guide**

**Mr. Nandan Shetty**

Production manager  
ZIV India Private Limited,  
Bengaluru.



**Department of Electrical & Electronics Engineering  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru 562157

Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "ORIENTATION ON NUMERICAL RELAY FOR SUBSTATION AUTOMATION WHICH INCLUDES TESTING AND DEBUGGING OF NUMERICAL RELAY " carried out by Ms. SARASWATI SHEKKHARAPPA SHIRUR, USN 1MV21EE435, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report deposited in the department library. The internship work report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Vijayalakshmi A K

  
Signature of HOD  
Dr. Suresh H L

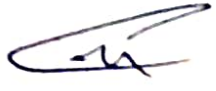

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mysore-562157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

1. C V Mohan
2. Dr. C V Mohan

Signature with Date

 28/5  
 28/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report  
On**

**"SUBSTATION MAINTENANCE"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SELVAN S**

**USN:1MV21EE436**

Under the Guidance of

Internal Guide

**Ms. Vijayalakshmi A K**

Assistant Professor,  
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**Smt. Smitha U**

Assistant Executive Engineer,  
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**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023–2024**



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(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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## Department of Electrical & Electronics Engineering



### CERTIFICATE

Certified that the internship entitled ' "SUBSTATION MAINTENANCE" ' carried out by Mr. SELVAN S USN 1MV21EE436, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Ms. Vijayalakshmi A K

Signature of HOD

Dr. Suresh H E

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsaranehalli  
(Via) Yelahanka, Bengaluru - 562 157

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsaranehalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

### EXTERNAL VIVA

#### Name of Examiners

#### Signature with Date

1. Dr. L. V. Mohan
2. Dr. Mayur K. Bhat

  
20/5/24  
  
20/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report  
On**

## **"STUDY OF OPERATION AND MAINTENANCE OF SUBSTATION"**

submitted in partial fulfillment of the requirements for the award of the Degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SHARATH KUMAR U**  
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Under the Guidance of

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**External Guide**

**Mr. Girish Bestara**  
Assistant Executive Engineer,  
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**Department of Electrical & Electronics Engineering**

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Department of Electrical & Electronics Engineering



## CERTIFICATE

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Signature of Guide  
Mrs. Vijayalakshmi A K

Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

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International Airport Road, Bengaluru - 562 157

Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. C V Malya
2. Dr. Manjunath Bhat

En 26/5  
Att 24/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
On  
**"OVER-ALL SYSTEM STUDIES OF SLDC"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SHASHIDHAR S**  
**USN:1MV21EE438**

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**Department of Electrical & Electronics Engineering**

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**2023-24**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru-562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship report entitled "OVER-ALL SYSTEM STUDIES OF SLDC" carried out by Mr. SHASHIDHAR S 1MV21EE438, Bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-24. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Internship report has been approved as it satisfies the academic requirements in respect of internship report prescribed for the above-mentioned degree.

Signature Guide

Mrs. Vijayalakshmi A K

Signature of HOD

Dr. Suresh H H

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsasamanehalli  
(Via) Yelahanka, Bengaluru - 562 157

EXTERNAL VIVA

Name of Examiners

1. CV Mohan
2. Dr. Manjunath Bhat

Signature of Principal

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Krishnadevarayanagar, Hunsasamanehalli  
International Airport Road, Bengaluru-562 157

Signature of Principal

Prof. Rakesh S G

Signature with Date

Signature with Date



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



## **Internship Report On "EMBEDDED SYSTEM AND IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SHEETHAL C**  
USN: 1MV21EE439

Under the Guidance of

Internal Guide  
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**Department of Electrical & Electronics Engineering**

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**2023-2024**



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Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "EMBEDDED SYSTEM AND IOT" carried out by Ms. SHEETHAL C USN: 1MV21EE439, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Ms. Vijayalakshmi A K

  
Signature of HOD  
Dr. Suresh H  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahal Road  
(Vidya Yelamantla, Bengaluru - 562 157)

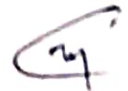

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahal Road  
Intern. Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

**EXTERNAL VIVA**

Name of Examiners

Signature with Date

1. Dr. C.V. Mohan
2. Dr. Madhu.p

 27.5  
 28/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on  
**"INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
IN  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SHIVA KUMAR**  
USN: 1MV21EE440

Under the Guidance of

**Internal Guide**  
**Ms. Vijayalakshmi A.K**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir. M.VIT, Bengaluru.

**External Guide**  
**Mr. Gururaj**  
Assistant Engineer (Electrical),  
YCCP, KPCL,  
Yelahanka, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering



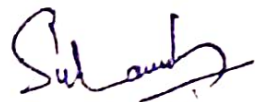
## CERTIFICATE

Certified that the internship entitled "INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED" carried out by Mr. SHIVA KUMAR, USN 1MV21EE440, a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Ms. Vijayalakshmi A.K.

  
Signature of HOD  
Dr. Suresh H.L.  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahalalli  
(Via) Yelahanka, Bengaluru - 562 157



  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahalalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S.G.

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Siddappa Adinar
2. Dr. Madhu Palati

 29/5/24  
 29/5/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report  
on  
"INDUSTRIAL COMMUNICATION PROTOCOLS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**SHIVALINGAYYA**  
**USN: 1MV21EE441**

Under the Guidance of

**Internal Guide**  
**Ms. Vijayalakshmi A. K**  
Assistant Professor,  
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Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Prashanth**  
Lead Manager,  
Harmonizer India Private Limited,  
Sunkadakatte, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled “**INDUSTRIAL COMMUNICATION PROTOCOL**” carried out by Mr. SHIVALINGAYYA, USN - 1MV21EE441, a bonafide student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Ms. Vijayalakshmi A. K

Signature of HOD  
Dr. Suresh H L

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsur, Belagavi  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. C v mohan
2. Dr. Manjunath Babur



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report**

**on**

**"ELECTRICAL MAINTENANCE IN EARTH MOVER DIVISION AND  
HYDRAULIC AND POWER LINE DIVISION AT BEML"**

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SRINATH K V**

**USN: 1MV21EE442**

Under the Guidance of

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**Mrs. Harshithananda B**

Assistant Professor,  
Electrical & Electronics, Engineering,  
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Manager in Electrical,  
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**Department of Electrical & Electronics Engineering**

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**2023 – 2024**



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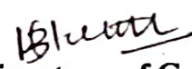
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

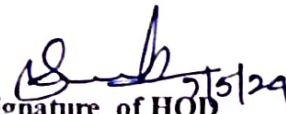
Department of Electrical & Electronics Engineering

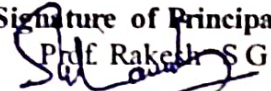


## CERTIFICATE

Certified that the internship entitled "ELECTRICAL MAINTENANCE IN EARTH MOVER DIVISION AND HYDRAULIC AND POWER LINE DIVISION AT BEML" carried out by Mr. SRINATH K V, USN 1MV21EE442, a bonafide student of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Harshithananda B

  
Signature of HOD  
PROF. S. S. S. S. S.  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yalahanka, Bengaluru - 562 157  
EXTERNAL VIVA

  
Signature of Principal  
Prof. Rakesh S G  
PRINCIPAL  
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Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157

Name of Examiners

Signature with Date

1. Dr. C. V. S. S. S.
2. Dr. Manjunath B. S. S.

  
11/20/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



## **Internship Report on "SUBSTATION MAINTENANCE"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SUDEEP PATIL  
USN: 1MV21EE444**

Under the Guidance of

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**Department of Electrical & Electronics Engineering  
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**2023-2024**



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Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the internship entitled "SUBSTATION MAINTENANCE" carried out by **Mr. SUDEEP PATIL** USN- 1MV21EE444, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in **Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the abovementioned degree.

  
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Mrs. Harshithananda B

  
Signature of HOD  
Dr. Suresh H

DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING  
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Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

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1. Dr. CV M. H
2. Dr. Manjunath Reddy

  
11/20/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

*"Jnananugraha", Belagavi 599 918*



**Internship Report**

**on**

**"OVERVIEW OF MISSILE SYSTEM"**

*submitted in partial fulfillment of the requirements for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

*Submitted by*

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**USN : 1MV21EF445**

*Under the Guidance of*

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*Sir. MVTE, Bengaluru.*

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**Department of Electrical & Electronics Engineering**

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**2023 – 2024**



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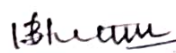
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Department of Electrical & Electronics Engineering




## CERTIFICATE

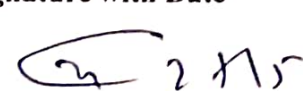
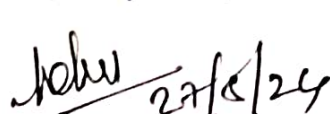
Certified that the internship entitled "OVERVIEW OF MISSILE SYSTEM" carried out by Mr. SUHAS R KARNAM, USN 1MV21EE445, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report deposited in the department library. The internship work report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Harshithananda. B

  
Signature of HOD  
Dr. Suresh H L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners	Signature with Date
1. C V Mohan	 27/5
2. Dr. Mathan P	 27/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

**"OVERVIEW ON MILITARY RADAR IN ALL DEPARTMENTS"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SUMITH H V**

**USN: 1MV21EE447**

Under the Guidance of

Internal Guide

**Mrs. Harshithananda. B**

Assistant Professor,

Electrical & Electronics Engineering,

Sir. MVIT, Bengaluru.

External Guide

**Mr. Meenakshi sundram**

HR, Military radar,

Bharat Electronics Limited,

Jalahalli, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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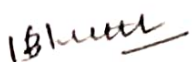
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

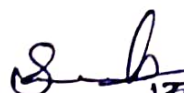
Department of Electrical & Electronics Engineering



## CERTIFICATE

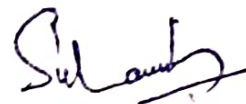
Certified that the internship entitled "OVERVIEW ON MILITARY RADAR IN ALL DEPARTMENTS" carried out by Mr. SUMITH H V USN 1MV21EE447, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Harshithananda B

  
Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

**EXTERNAL VIVA**

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsamaranahalli  
International Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1. C V mohan
2. Dr. Manjula Rakesh

  
At 28/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama," Belagavi-590 018



## Internship Report

on

## "MANUFACTURING AND ASSEMBLY OF DIESEL GENERATOR SETS"

submitted in partial fulfilment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**UDAY J**

**USN:1MV21EE448**

Under the Guidance of

Internal Guide

**Mrs. Harshithananda B**

Assistant Professor,

Electrical & Electronics Engineering,

Sir. MVIT, Bengaluru.

External Guide

**Mr. Shivaprasad**

General Manager and Admin

Powerica Limited,

Nelamangala, Bengaluru.



Department of Electrical & Electronics Engineering

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

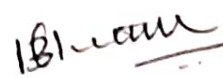
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

## Department of Electrical & Electronics Engineering

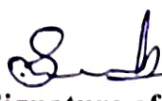


### CERTIFICATE

Certified that the internship entitled "MANUFACTURING AND ASSEMBLY OF DIESEL GENERATOR SETS" carried out by **Mr. UDAY J USN 1MV21EE448**, a bonafide student of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**, Bengaluru in partial fulfilment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University**, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.



Signature of Guide  
Mrs. Harshithananda B



Signature of HOD  
Dr. Suresh H L  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarmaneahalli  
(Via) Yelankota, Bengaluru - 562 157  
**EXTERNAL VIVA**



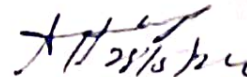
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsarmaneahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

Name of Examiners

Signature with Date

1.

2. Dr. Rujith R S

  
25/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama," Belagavi-590 018



**Internship Report**

**on**

**"OVERVIEW ON ADVANCE DEFENCE SYSTEM NAVY"**

Submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**VENKATESH K**

**USN: 1MV21EE449**

Under the Guidance of

Internal Guide

**Mrs. Harshithananda.B**

Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

External Guide

**Mr. Rohan Prakash Dsouza**

HR, Advance defence system navy,  
Bharat Electronics Limited,  
Jalahalli, Bengaluru.



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

**Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157**

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the internship entitled "AN OVERVIEW OF ORGANIZATION STUDY IN ADVANCE DEFENCE SYSTEM NAVY" carried out by Mr. VENKATESH K USN IMV21EE449, a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

Signature of Guide  
Mrs. Harshithananda B

Signature of HOD  
Dr. Rakesh S G

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayana Nagar, Hunsuramahanahalli  
(Via) Velshanka, Bengaluru - 562 157

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayana Nagar, Hunsuramahanahalli  
Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Madhu Palati
2. Dr. Siddhartha R. R.

  
29/5/24  
  
29/5/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
**on**  
**"INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**MAHAMMAD MAKBUL**  
**USN: 1MV21EE450**

Under the Guidance of

**Internal Guide**  
**Ms. Harshithananda B**  
Assistant Professor,  
Electrical & Electronics Engineering,  
Sir M.VIT, Bengaluru.

**External Guide**  
**Mr. Anil Kumar**  
Assistant Engineer (Electrical),  
YCCP, KPCL,  
Yelahanka, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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Department of Electrical & Electronics Engineering

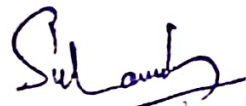


## CERTIFICATE

Certified that the internship entitled “INPLANT TRAINING AT KARNATAKA POWER CORPORATION LIMITED” carried out by Mr. MAHAMMAD MAKBUL, USN 1MV21EE450, a Bonafede student of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above-mentioned degree.

  
Signature of Guide  
Ms. Harshithananda B

  
Signature of HOD  
Dr. Suresh H L

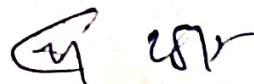
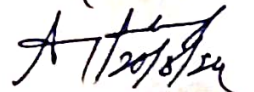
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Bengaluru - 562157  
Signature of Principal  
Prof. Rakesh S G

## EXTERNAL VIVA

Name of Examiners

Signature with Date

1. E V Mahan
2. Dr. Manjunath Babu



# **Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**“Jnana Sangama”, Belagavi-590 018**



## **Mini Project Report On**

### **“APPLICATIONS OF AUGMENTED REALITY IN ELECTRICAL ENGINEERING”**

Submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

**IN**

## **ELECTRICAL & ELECTRONICS ENGINEERING**

**Submitted by**

**AASTHA**

**1MV21EE001**

**JAYSHREE.V.S**

**1MV21EE018**

**MAHESH.M.A**

**1MV22EE417**

**MANJUNATH.M.S**

**1MV22EE419**

**Under the Guidance of**

**Dr.R.Sivapriyan.**

**Associate Professor.**

**Dept. of Electrical & Electronics Engineering**



**Department of Electrical & Electronics Engineering**

**Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)**

**Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157**

**2023 – 2024**



# Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

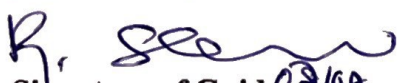
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the mini project work entitled “**Applications of Augmented Reality in Electrical Engineering** ” carried out by AASTHA [1MV21EE001], JAYSHREE V S [1MV21EE018], MAHESH M A [ 1MV22EE417], MANJUNATHA M S [1MV22EE419] a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr.R.Sivapriyan.

  
Signature of HOD  
Dr.Suresh.H.L.



PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bengaluru - 562 157  
Signature of Principal  
Prof. Rakesh.S.G.

## INTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Siddapaji. H.R
2. Dr. R. Sivapriyan

  
  
08/05



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

## “ROBOTIC CONTROLLED ARM”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

ADARSH M BALLARY	- 1MV22EE400
DIVYA T L	- 1MV22EE408
HANAMANT PUJARI	- 1MV22EE410
HARSHA KUMAR	- 1MV22EE413

Under the Guidance of

**Mrs. Rekha Radhakrishnan**

Assistant Professor,  
Dept. of Electrical & Electronics Eng.,  
Sir M. VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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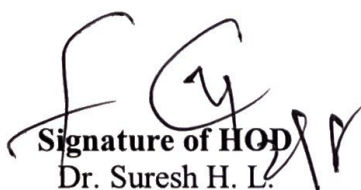
Department of Electrical & Electronics Engineering

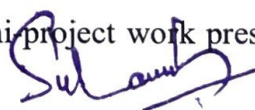


## CERTIFICATE

Certified that the mini project work entitled **“ROBOTIC CONTROLLED ARM”** carried out by **ADARSH M BALLARY (1MV22EE400), DIVYA T. L.(1MV22EE408), HANAMANT PUJARI (1MV22EE410), HARSHA KUMAR (1MV22EE413)** bonafide students of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

f.   
**Signature Guide**  
Mrs. Rekha Radhakrishnan

  
**Signature of HOD**  
Dr. Suresh H. L.

  
**PRINCIPAL**  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunasamaranahalli  
International Airport Road, Bengaluru - 562157  
**Signature of Principal**  
Prof. Rakesh S. G.

## INTERNAL VIVA

**Name of Examiners**

**Signature with Date**

1. Dr. Ashwini A V
2. Dr. Rekha S

  
21/8/24  
  
21/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018.



Mini Project Report

on

“Touch Screen Based Home Automation System”

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**RAVI TEJA G  
ROHIT  
SHIVARAJ N  
VEERAJ**

**1MV21EE043  
1MV21EE044  
1MV21EE051  
1MV22EE451**

Under the Guidance of

**Dr. C.V. Mohan  
Associate Professor  
Electrical & Electronics Engineering  
Sir M. VIT, Bengaluru.**



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157,

2023 – 2024



# Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the mini project work entitled “Touch Screen Based Home Automation System” carried out by RAVITEJA G, USN 1MV21EE043, ROHIT, USN 1MV21EE044, SHIVARAJ N, USN 1MV21EE051, VEERAJ, USN 1MV22EE451 a bonafide students of Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above mentioned degree.

Signature Guide  
Dr. C. V. Mohan

21/8/24

Signature of HOD  
Dr. Suresh H.L.

21/8/24

Signature of Principal  
Prof. Rakesh S. G. Samaranahalli  
Sir M. Visvesvaraya Institute of Technology  
Off Kempegowda International Airport Road, Bangalore-562 157

## EXTERNAL VIVA

Name of Examiners

1. Dr. Ashwini. A V
2. Dr. Rekha S

Signature with Date

21/8/24  
21/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



Mini - Project Report

on

## “AUTOMATIC TEMPERATURE REGULATION OF ELECTRIC MOTOR USING PIC MICROCONTROLLER”

Submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**DARSHAN GOWDA. P.**

**1MV21EE011**

**KUSHAL G DIVAKAR**

**1MV21EE029**

**ANIL T. D.**

**1MV22EE401**

**MOHAMMED RAFIQ SHAIKH**

**1MV22EE423**

Under the Guidance of

**Mr .V. Rajesh Kumar**

Assistant Professor,



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi , Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**2023 – 2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi , Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

## Department of Electrical & Electronics Engineering




### CERTIFICATE


Certified that the mini project work entitled “**Automatic Temperature Regulation Of Electric Motor Using Pic Microcontroller**” carried out by **DARSHAN GOWDA P.**

**(1MV21EE011), KUSHAL G DIVAKAR (1MV21EE029), ANIL T. D. (1MV22EE401), MOHAMMED RAFIQ SHAIKH (1MV22EE423)** a bonafide students of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. V. Rajesh Kumar

  
Signature of HOD  
Dr. Suresh H. J.  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramahalalli  
(Via) Yelahanka, Bengaluru - 562 157

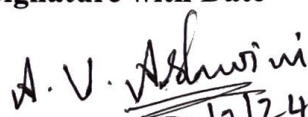
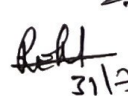
  
PRINCIPAL  
Signature of Principal  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Off. Rakesh S. G.  
Krishnadevarayanagar, Hunsuramahalalli  
International Airport Road, Bangalore-562 157

### INTERNAL VIVA

Name of Examiners

1. Dr. Ashwini. A. V
2. Dr. Lekha S

Signature with Date

  
A. V. Ashwini  
31/7/24  
  
Lekha  
31/7/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini Project Report

on

## “Cow Health Monitoring System Using IoT”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

<b>KRUTHIK KRISHNAMURTHY</b>	<b>-1MV21EE028</b>
<b>LAKSHMIKANTH N. G.</b>	<b>-1MV21EE031</b>
<b>SHREE HARIPRASAD NAYAK</b>	<b>-1MV21EE052</b>
<b>SHREYAS. T. GOWDA</b>	<b>-1MV21EE053</b>

Under the Guidance of

Mr. Kumarswamy R  
Assistant Professor  
Dept of Electrical & Electronics Engg.  
SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE


Certified that the mini project work entitled “*Cow Health Monitoring System Using IoT*” carried out by Mr. KRUTHIK KRISHNAMURTHY (1MV21EE028), Mr. LAKSHMIKANTH N. G (1MV21EE031), Mr. SHREE HARIPRASAD NAYAK (1MV21EE052) and Mr. SHREYAS T. GOWDA (1MV21EE053) bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature of Guide

Mr. Kumarswamy R

  
Signature of HOD

Dr. Suresh H. L.

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Mandya District  
International Airport Road, Bengaluru-562157  
Signature of Principal

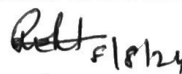
Prof. Rakesh S. G.


## EXTERNAL VIVA

Name of Examiners

1. Dr. Rekha S
2. Dr. Ashwini AV

Signature with Date

  
8/8/24

  
8/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini Project Report

on

## “SMART ELECTRIC BICYCLE”

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**CHANDAN.S.**

**1MV21EE009**

**CHANDRASHEKAR.K.N.**

**1MV21EE010**

**K.B MITHUN CARIAPPA.**

**1MV21EE019**

**M.NISHANTH YADAV.**

**1MV21EE032**

Under the Guidance of

Mr. Pradeep Kumar,

Assistant. Professor,

Dept. of Electrical & Electronics Engg.,

Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar

Bengaluru – 562157

2023-2024



# Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY

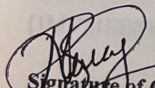
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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

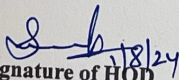
## Department of Electrical & Electronics Engineering



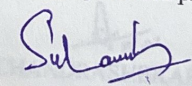
### CERTIFICATE

Certified that the Mini Project work entitled “SMART ELECTRIC BICYCLE” carried out by,  
CHANDAN.S.[1MV21EE009],CHANDRASHEKAR.K.N.[1MV21EE010],K.B.MITHUN  
CARIAPPA.[1MV21EE019],M.NISHANTH YADAV.[1MV21EE032] a bonafide students of Sir  
M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the  
requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics  
Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini Project work report has  
been approved as it satisfies the academic requirements in respect of Mini Project work prescribed  
for the above-mentioned degree.

  
Signature of Guide  
Mr. Pradeep Kumar.

  
Signature of HOD  
Dr. Suresh H.I.

PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

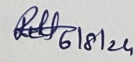
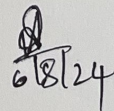
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S.G.

Name of Examiner

INTERNAL VIVA

Signature with Date

1. Dr. Lekha S
2. Dr. Ashwini . V

  
6/8/24  
  
6/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



Mini-Project Report

on

## “CONTACTLESS DIGITAL TACHOMETER”

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**INDUMATHI.T.C - 1MV21EE016**

**K.UDAY KETHAN - 1MV21EE020**

**BHARAT KUMAR.B.K - 1MV22EE402**

**MALLIKARJUNA - 1MV22EE418**

Under the Guidance of

Dr. Suresh. H.L.

Professor & Head

Dept. of Electrical & Electronics Engineering



**Department of Electrical & Electronics Engineering**

**Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Bengaluru – 562157

2023-24



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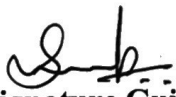
Bengaluru – 562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the mini project work entitled “**Contactless Digital Tachometer**” carried out by **INDUMATHI.T.C [1MV21EE016]**, **K.UDAY KETHAN [1MV21EE020]**, **BHARAT KUMAR.B.K [1MV22EE402]**, **MALLIKARJUNA [1MV22EE418]** a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature Guide  
Dr.Suresh.H.L.

  
Signature of HOD  
Dr.Suresh.H.L.



  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunasamaranahalli  
Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh.S.G.

## INTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Ashwini V
2. Dr. Rakesh S

  
30/6/24  
  
31/6/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini Project Report

on

### “MODELING & SIMULATION OF DSTATCOM FOR POWER QUALITY ENHANCEMENT IN DISTRIBUTION SYSTEM”

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

AISHWARYA.S.S.

1MV21EE004

PRIYANKA.T.

1MV21EE041

PRAJWAL.A.

1MV22EE431

SRIKANTH.S.

1MV22EE442

Under the Guidance of

**Dr. Suresh.H.L.**

Professor & Head,

Dept. of Electrical & Electronics Eng.,

SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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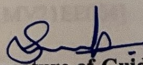
Bengaluru - 562157

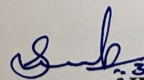
Department of Electrical & Electronics Engineering

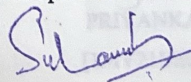


## CERTIFICATE

Certified that the Mini Project work entitled "MODELING & SIMULATION OF DSTATCOM FOR POWER QUALITY ENHANCEMENT IN DISTRIBUTION SYSTEM" carried out by AISHWARYA.S.S.[1MV21EE004], PRIYANKA.T. [1MV21EE041], PRAJWAL.A[1MV22EE431], SRIKANTH.S.[1MV22EE442] a bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of Mini Project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr.Suresh.H.L.

  
Signature of HOD  
Dr.Suresh.H.L.

  
PRINCIPAL  
Signature of Principal  
Prof.Rakesh.S.G.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hosuramahanahalli  
International Airport Road, Bangalore-562 157

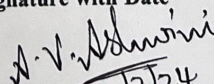
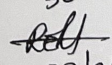
Name of Examiner

INTERNAL VIVA

Signature with Date

1. Dr. Ashwini.A.V

2. Dr. Lekha S

  
30/7/24  
  
30/7/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

## “SOLAR TRACKER SUNFLOWER BASED MODEL USING ARDUINO”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

KANDURI THARUNI	-	1MV22EE415
SUCHITH LAWRENCE	-	1MV22EE444
SWATHI J	-	1MV22EE446
VENNILA KIRAN A C	-	1MV22EE453

Under the Guidance of

Dr. Mahesh.K.

Professor

Department of Electrical & Electronics Engineering.,

SIR M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

## Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE New Delhi, Accredited by NAAC and NBA)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

2023 – 2024



# Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi Approved by AICTE New Delhi, , Accredited by NAAC and NBA,)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the mini project work entitled “SOLAR TRACKER SUNFLOWER BASED MODEL USING ARDUINO” carried out by KANDURI THARUNI, (1MV22EE415), SUCHITH LAWRENCE, (1MV22EE444), SWATHI J, (1MV22EE446), VENNILA KIRAN A C, (1MV22EE453), bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The mini-Project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

Signature Guide  
Dr. Mahesh.K.

Signature of HOD  
Dr. Suresh. H. L.

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Maranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh.S.G.

## INTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Rellu S
2. Dr. Ashwini. N V

Rellu S  
29/7/24  
Ashwini N V  
29/7/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

## “SELF-BALANCING VEHICLE USING BATTERY”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**NISCHITH RAJ L.C - 1MV21EE039**

**RAKSHITA MAHESH KANTHI - 1MV21EE042**

**SUMITH BABU.S - 1MV21EE058**

**VINDYA.P - 1MV21EE064**

Under the Guidance of

Ms. P. Kezia Joy Kumari

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Bengaluru – 562157

**2023– 2024**



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Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the mini project work entitled “Self-Balancing Vehicle Using Battery” carried out by NISCHITH RAJ L.C (1MV21EE039), RAKSHITA MAHESH KANTHI (1MV21EE042), SUMITH BABU.S (1MV21EE058), VINDYA.P (1MV21EE064) a bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature Guide  
Ms. P. Kezia Joy Kumari

  
Signature of HOD  
Dr. Suresh H.L.



  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Internal Airport Road, Bengaluru-562 157  
Signature of Principal  
Prof. Rakesh S.G.

## INTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Ashwini A V
2. Dr. Retha S

  
31/7/24  
  
31/7/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini project Report

on

**“Speed Control and Monitoring of Induction Motor using IOT”**

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**DARSHAN M L** - 1MV21EE013

**KRUTHIK GOWDA M** - 1MV21EE027

**SELVA KANNAN K** - 1MV21EE046

**SHARAN R** - 1MV21EE047

Under the Guidance of

**Mr. Pradeep Kumar,**

Asst. Professor,

Dept. of Electrical & Electronics Engineering



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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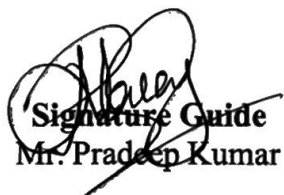
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru-562157


Department of Electrical & Electronics Engineering

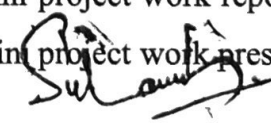


## CERTIFICATE

Certified that the mini project work entitled 'Speed Control and Monitoring of Induction Motor Using IOT' carried out by **DARSHAN ML, USN [1MV21EE013], KRUTHIK GOWDAM, USN [1MV21EE027], SELVA KANNAN K, USN [1MV21EE046], SHARAN R, USN [1MV21EE047]** a bonafide students of **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature Guide  
Mr. Pradeep Kumar

  
Signature of HOD  
Dr. Suresh H.L.  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157  
INTERNAL VIVA-VOCE

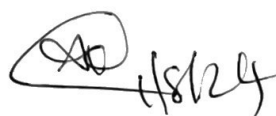
  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S.G.

Name of Examiners

Signature with Date

1. Dr. Retha S
2. Vijayalakshmi

  
18/8/24

  
18/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

## “SIMULATION AND IMPLEMENTATION OF SOLAR MICRO- INVERTER”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

<b>BHARATH BHUSHAN.</b>	<b>1MV21EE008</b>
<b>MANOJ S.C.</b>	<b>1MV21EE033</b>
<b>MD RIZWAN KHAN.P.</b>	<b>1MV21EE034</b>
<b>SAI PRABODH.M. GUJJAR</b>	<b>1MV22EE435</b>

Under the Guidance of

Mr. KUMARASWAMY R,  
Assistant. Professor,  
Dept. of Electrical & Electronics Eng.,  
Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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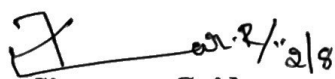
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## Department of Electrical & Electronics Engineering

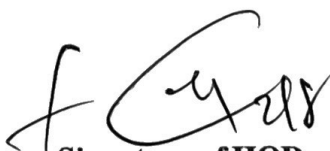


### CERTIFICATE

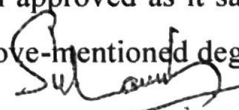
Certified that the project work entitled “SIMULATION AND IMPLEMENTATION OF SOLAR MICRO-INVERTER” carried out by, **BHARATH BHUSHAN(1MV21EE008)**, **MANOJ S.C. (1MV21EE033)**, **MD RIZWAN KHAN.P(1MV21EE034)**, **SAI PRABODH.M.GUJJAR (1MV22EE435)** are Bonafide students of Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.



**Signature Guide**  
Mr. Kumaraswamy.R.



**Signature of HOD**  
Dr. Suresh H.L.

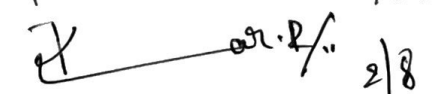
  
**PRINCIPAL**  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
**Signature of Principal**  
Prof. Rakesh S.G.

### EXTERNAL VIVA

#### NAME OF THE EXAMINERS

1. **Dr. R. Sivapriyan**
2. **Ms. Kumaraswamy .R.**

#### SIGNATURE AND DATE

 02/08/24  
 02/08/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“Jnana Sangama”, Belagavi-590 018**



## **Mini-Project Report**

**on**

## **“EFFICIENT DUAL AXIS SOLAR TRACKING SYSTEM WITH HOME AUTOMATION ”**

submitted in partial fulfillment of the requirements for the award of the Degree of

## **BACHELOR OF ENGINEERING**

**IN**

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**PRANATHI S - 1MV21EE040**

**THRISHA R - 1MV21EE060**

**VAIBHAV S - 1MV21EE062**

**VIJAYKUMAR G - 1MV22EE455**

Under the Guidance of

Ms.Sandra M,

Assistant Professor,

Dept. of Electrical & Electronics Eng.,

Sir MVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)


Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


## Department of Electrical & Electronics Engineering




### CERTIFICATE

Certified that the project work entitled “**Efficient Dual Axis Solar Tracking System With Home Automation** ” carried out by PRANATHI S, USN 1MV21EE040, THRISHA R, USN 1MV21EE060, VAIBHAV S, USN 1MV21EE062, VIJAY KUMAR G, USN 1MV22EE455 a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
**Signature Guide**  
Ms. Sandra .M

  
**Signature of HOD**  
Dr. Suresh H L



  
**PRINCIPAL**  
**Signature of Principal**  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157

### EXTERNAL VIVA

**Name of Examiners**

1. Dr. Ashwini N.V.
2. Dr. Rakesh S

**Signature with Date**

  
31/7/24  
  
31/7/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi - 590 018



## Mini-Project Report

on

## “CROP PROTECTION USING SOLAR ENERGY SYSTEM”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

ABHISHEK KUMAR

1MV21EE003

KHIVAN AVTAR

1MV21EE024

UZMA ALMAS

1MV21EE061

VIHAN C SINGE

1MV21EE063

Under the Guidance of

Ms. Vijayalakshmi A.K,

Assistant Professor,

Department of Electrical & Electronics Engineering,

Sir MVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli,

Bengaluru – 562 157



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Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli,  
Bengaluru – 562 157

## Department of Electrical & Electronics Engineering

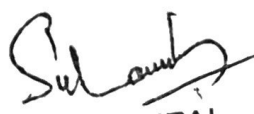


### CERTIFICATE

Certified that the mini project work entitled “*CROP PROTECTION USING SOLAR ENERGY SYSTEM*” carried out by Abhishek Kumar 1MV21EE003, Khivan Avtar 1MV21EE024, Uzma Almas 1MV21EE061, Vihan C Singe 1MV21EE063 bonafide students of Sir M. Visvesvaraya Institute Of Technology, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
**Signature Guide**  
Ms. Vijayalakshmi A.K

  
**Signature of HOD**  
Dr. Suresh H.L.



  
**PRINCIPAL**  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
**Signature of Principal**  
Prof. Rakesh S.G.

### INTERNAL VIVA-VOCE

#### Name of Examiners

1. Dr. Rekha S
2. Vijayalakshmi A.K

#### Signature with Date

 11/8/24  
 11/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

### “FAULT DETECTION IN POWER SYSTEM USING DATA ANALYTIC TECHNIQUE BY WEKA SOFTWARE”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

<b>MOHAMMED TAWAKKAL</b>	<b>1MV21EE037</b>
<b>NAMRATHA S B</b>	<b>1MV21EE038</b>
<b>RAGHU S</b>	<b>1MV22EE432</b>
<b>VIJAYAKUMAR</b>	<b>1MV22EE456</b>

Under the Guidance of

Ms. Vijayalakshmi A K

Assistant Professor,

Dept. of Electrical & Electronics Eng.,

Sir MVIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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Bengaluru – 562157

**2023 – 2024**



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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the project work entitled “FAULT DETECTION IN POWER SYSTEMS USING DATA ANALYTIC TECHNIQUE BY WEKA SOFTWARE” carried out by, **MOHAMMED TAWAKKAL [1MV21EE037], NAMRATHA.S.B [1MV21EE038], RAGHU.S [1MV22EE432], VIJAYAKUMAR [1MV22EE456]**, a bonafide students of **Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
**Signature Guide**  
Ms. Vijayalakshmi A K

  
**Signature of HOD**  
Dr. Suresh H L

  
**Signature of Principal**  
Prof. Rakesh S.G.

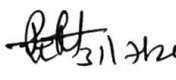

**PRINCIPAL**  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevaraya Nagar, Hunsur, Bangalore-562157

**INTERNAL VIVA**

**Name of Examiners**

**Signature with Date**

1. Dr. Rekha S
2. Dr. Ashwini A V

  
31/7/24  
  
31/7/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



Mini-Project Report

On

**“Visual Object Tracking Based on Backward Model Validation”**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>ANUSHA BASANAGOWDA HATTI</b>	<b>1MV21EE005</b>
<b>ARUN KUMAR</b>	<b>1MV21EE006</b>
<b>DURGA K</b>	<b>1MV21EE014</b>
<b>NAVEEN KUMAR N</b>	<b>1MV22EE427</b>

Under the Guidance of

Ms Harshithananda.B.  
Assistant Professor,



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

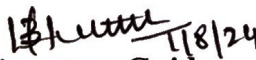
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru -562157

Department of Electrical & Electronics Engineering

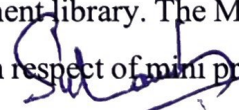


## CERTIFICATE

Certified that the mini project work entitled “**Visual Object Tracking Based on Backward Model Validation**” carried out by, **ANUSHA BASANAGOWDA HATTI[1MV21EE005]** **ARUN KUMAR[1MV21EE006]** **DURGA K [1MV21EE014]**, **NAVEEN KUMAR N [ 1MV22EE427]** a bonafide students of Sir M .VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature Guide  
Ms.Harshithananda.B.

  
Signature of HOD  
Dr. Suresh H.L

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S.G.

## INTERNAL VIVA

Name of The Examiner

1. Dr. Rekha S
2. R. SIVAPRIYA

Signature with Date




**Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**“Jnana Sangama”, Belagavi-590 018**



**Mini Project Report**

**On**

**“APPLICATIONS OF AUGMENTED REALITY IN ELECTRICAL  
ENGINEERING”**

Submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

**Submitted by**

**AASTHA**

**1MV21EE001**

**JAYSHREE.V.S**

**1MV21EE018**

**MAHESH.M.A**

**1MV22EE417**

**MANJUNATH.M.S**

**1MV22EE419**

**Under the Guidance of**

**Dr.R.Sivapriyan.**

**Associate Professor.**

**Dept. of Electrical & Electronics Engineering**



**Department of Electrical & Electronics Engineering**

**Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)**

**Off Kempegowda International Airport Road, Krishnadevaraya Nagar,**

**Bengaluru – 562157**

**2023 – 2024**



# Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

Department of Electrical & Electronics Engineering

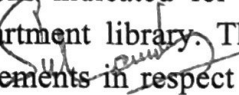


## CERTIFICATE

Certified that the mini project work entitled “**Applications of Augmented Reality in Electrical Engineering** ” carried out by AASTHA [1MV21EE001], JAYSHREE V S [1MV21EE018], MAHESH M A [ 1MV22EE417], MANJUNATHA M S [1MV22EE419] a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr.R.Sivapriyan.

  
Signature of HOD  
Dr.Suresh.H.L.

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh.S.G.

## INTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. Siddapajjunnur
2. Dr. R. Sivapriyan

  
  
08/08/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

## “IOT BASED ECO-FRIENDLY SMART BIN”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

CHAITRA R S	1MV22EE406
MANOJ H P	1MV22EE420
MANOJ KUMAR Y	1MV22EE421
PAVAN S	1MV22EE429

Under the Guidance of

**Mrs. P. Sumalatha**

Assistant Professor,

Dept. of Electrical & Electronics Eng.,

Sir M. VIT, Bengaluru.



## Department of Electrical & Electronics Engineering Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

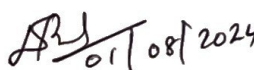
(Approved by OAICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157


## Department of Electrical & Electronics Engineering

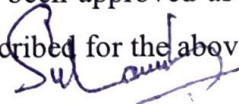


### CERTIFICATE

Certified that the mini project work entitled “**IOT BASED ECO-FRIENDLY SMART BIN**” carried out by CHAITRA R.S. [1MV22EE406], MANOJ H.P. [1MV22EE420], MANOJ KUMAR.Y [1MV22EE421], PAVAN.S [1MV22EE429] Bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The mini Project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. P. Sumalatha.

  
Signature of HOD  
Dr. Suresh H.L.

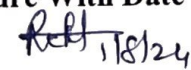

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Belagavi  
Internal Assessment  
Signature of Principal  
Prof. Rakesh S.G.

### INTERNAL VIVA

#### Name Of Examiner

1. Dr. Rekha S
2. Harshithananda S.

#### Signature With Date

  
11/8/24  
  
11/8/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“Jnana Sangama”, Belagavi-590 018**



**Mini-Project Report**

**on**

**“SMART TRAFFIC MANAGEMENT”**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**HARISH D.B - 1MV22EE411**

**JAYAKRISHNA.M - 1MV22EE414**

**REKHA R.T - 1MV22EE433**

**S. RAKSHITHA- 1MV22EE434**

Under the Guidance of

Ms. SANDRA M,

Assistant Professor,

Dept. of Electrical & Electronics Eng.,

Sir MVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



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Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


Department of Electrical & Electronics Engineering




## CERTIFICATE

Certified that the project work entitled “*SMART TRAFFIC MANAGEMENT*” carried out by **HARISH D.B. (1MV22EE411), JAYAKRISHNA.M.(1MV22EE414), REKHA R.T. (1MV22EE433), S.RAKSHITHA, (1MV22EE434)** a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The mini-Project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature Guide  
Ms. Sandra M

  
Signature of HOD  
Dr. Suresh H.L.  
PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanehalli  
(Via) Yelahanka, Bengaluru - 562 157

  
Signature of Principal  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanehalli  
International Airport Road, Bangalore-562 157

### INTERNAL VIVA

Name of Examiners

Signature with Date

1. Dr. R. Sivapriyan.
2. Mr. Kumaraswamy.R.

 02/08/24  
 02/08/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini Project Report

on

## “MODELING AND SIMULATION OF SOLAR AND WIND ENERGY SYSTEM”

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**BHAVANA.T.S.**

**1MV22EE404**

**BHUVANESHWARI.M.**

**1MV22EE405**

**GAGAN.S.**

**1MV22EE409**

**SUDARSHANA.V.N.**

**1MV22EE445**

Under the Guidance of

Mrs. P. Sumalatha

Assistant Professor,

Dept. of Electrical & Electronics Eng.,

SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

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Nagar, Bengaluru – 562157

**2023-2024**



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Department of Electrical & Electronics Engineering



## CERTIFICATE

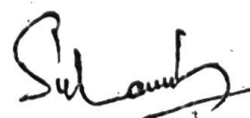
Certified that the Mini Project work entitled “ MODELING AND SIMULATION OF SOLAR AND WIND ENERGY SYSTEM” carried out by BHAVANA.T.S. [1MV22EE404], BHUVANESHWARI.M. [1MV22EE405], GAGAN.S. [1MV22EE409], SUDARASHANA.V.N. [1MV22EE445] a bonafide students of Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of Mini Project work prescribed for the above- mentioned degree.

& 

Signature of Guide  
Mrs. P. Sumalatha



Signature of HOD  
Dr. Suresh. H.L.



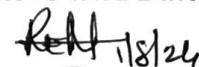
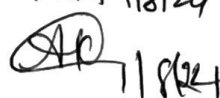
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Humasamaranahalli,  
Bengaluru-562157  
Signature of Principal  
Prof. Rakesh. S.G.

## INTERNAL VIVA

Name of Examiner

1. Dr. Rekha S
2. Vijayalakshmi SK

Signature with Date

 18/12/24  
 1/1/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



Mini-Project Report  
On

**“SMART BATTERY MANAGEMENT SYSTEM”**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**NAVYA N - 1MV22EE428**

**SANJEEVA KUMARA - 1MV22EE437**

**SHREESHAIL TEJI - 1MV22EE441**

Under the Guidance of

**Mrs. D. Beula**

Associate professor

Dept. of Electrical & Electronics Eng.,

Sir MVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

2023 – 2024



# Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

## Department of Electrical & Electronics Engineering

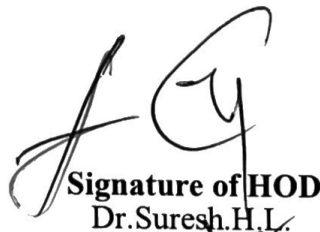


### CERTIFICATE

Certified that the mini project work entitled “SMART BATTERY MANAGEMENT SYSTEM” carried out by NAVYA N, USN 1MV22EE428, SANJEEV KUMARA, USN 1MV22EE437, SHREESHAIL TEJI, USN 1MV22EE441, a Bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.



Signature Guide  
Mrs. D. Beula

  
Signature of HOD  
Dr. Suresh H. L.

PROF. & HEAD  
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

**INTERNAL VIVA**

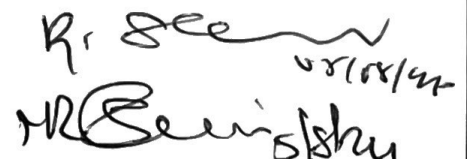


PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S. G.

#### Name of Examiners

1. Dr. K. Sivapriyan
2. Dr. Siddappa M. R

#### Signature with date

  
08/08/24  
MR. Siddappa M. R



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Mini-Project Report

on

### "RENEWABLE ENERGY CONSERVATION SYSYTEM BASED ON PERMANENT MAGNET SYNCHRONOUS GENERATOR USING MATLAB"

Submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

SYED SUBHAN

1MV22EE447

TARKESH KUMARCC

1MV22EE450

MOHAMMED AEYTESHAM AHMED

1MV22EE422

MAHANTHESH KR

1MV22EE416

Under the Guidance of

**Mr. Bhaskar C**

Assistant Professor,

Dept. of Electrical & Electronics Eng.,

Sir MVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023–2024**



# Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY


(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

## Department of Electrical & Electronics Engineering

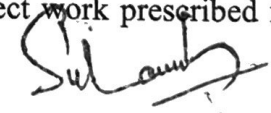


### CERTIFICATE

Certified Out the Project work entitled “RENEWABLE ENERGY CONSERVATION SYSYTEM BASED ON PERMANENT MAGNET SYNCHRONOUS GENERATOR USING MATLAB” Carried Out by **SYED SUBHAN, USN 1MV22EE447, TARKESHKUMAR C C, USN 1MV22EE450, MOHAMMED AEYTESHAM AHMED, USN 1MV22EE422, MAHANTHESH K R, USN1MV22EE416** a bonafide students of **Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the above-mentioned degree.

  
Signature Guide  
Mr. Bhaskar C

  
Signature of HOD  
Dr. H L Suresh

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Chamaraiahalli  
Internal Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S.G.

### EXTERNAL VIVA

#### Name of Examiners

1. Dr. Ashwini A V
2. Dr. Rekha S
- 3.
- 4.

#### Signature with Date

  
6/8/24  
  
6/8/24



**VISVESVARAYA TECHNOLOGICAL TECHNOLOGY**

**“Jnana Sangama”, Belagavi-590 018**



Mini Project Report

on

**“POWER FILTERS COMPARISION”**

submitted in partial fulfilment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

NATARAJA T J

1MV22EE426

TABREZ ASHRAFF

1MV22EE449

VENUKUMAR A P

1MV22EE454

VINAY D S

1MV22EE457

Under the Guidance of

Mr. Bhaskar C

Assistant professor

Dept of Electrical & Electronic Engg.,

SIR.M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, Accredited by NAAC and NBA)

Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru -562157

**2023 – 2024**



# Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, Accredited by NAAC and NBA)


Off kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157


## Department of Electrical & Electronics Engineering



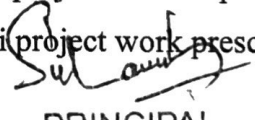
### CERTIFICATE

Certified that the mini project work entitled “POWER FILTERS COMPARISION” carried out by Mr. NATARAJA T J (1MV22EE426), Mr. TABREZ ASHRAFF (1MV22EE449), Mr. VENUKUMAR A P(1MV22EE454), Mr. VINAY D S (1MV22EE457) a Bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mr. Bhaskar C

  
Signature of HOD  
Dr. Suresh H I  
**PROF. & HEAD**



**DEPT. OF ELECTRICAL & ELECTRONICS ENGG.**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
Krishnadevarayanagar, Hunsuramarahalli  
(Via) Yalahanka, Bengaluru - 562 157  
**INTERNAL VIVA**

  
**PRINCIPAL**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
Krishnadevarayanagar, Hunsuramarahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal  
Prof. Rakesh S.G.

**Name of examiner**

1. Dr. R. Sivapalan
2. Dr. Siddappa M. R.

**Signature with date**

  
5/8/21  
  
5/8/21



**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**“Jnana Sangama”, Belagavi-590 018**



**Mini Project Report**

**on**

**“Adaptive Vehicle Headlight System”**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING  
IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

<b>AAYUSHI SRIVASTAVA</b>	<b>1MV21EE002</b>
<b>MIKET KUMAR</b>	<b>1MV21EE035</b>
<b>SHIVAM KUMAR</b>	<b>1MV21EE049</b>
<b>SPARSH KUMAR</b>	<b>1MV21EE054</b>

Under the Guidance of

Mrs. Bindiya Tyagi  
Assistant Professor  
Dept of Electrical & Electronics Engg.  
SIR MVIT, Bengaluru.



**Department of Electrical & Electronics Engineering  
Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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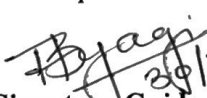
Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

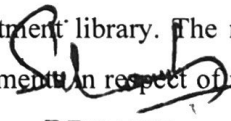
Certified that the mini project work entitled “Adaptive Vehicle Headlight System” carried out by **Ms. AAYUSHI SRIVASTAVA (1MV21EE002)**, **Mr. MIKET KUMAR (1MV21EE035)**, **Mr. SHIVAM KUMAR (1MV21EE054)** and **Mr. SPARSH KUMAR (1MV22EE054)** bonafide students of **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature Guide

Mrs. Bindiya Tyagi

  
Signature of HOD

Dr. Suresh H. L.

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsur, Hosur Road, Bangalore-562 157  
Signature of Principal



Prof. Rakesh S. G.

## INTERNAL VIVA-VOCE

Name of Examiners

1. Dr. Ishwini N V
2. Dr. Rethas

Signature with Date

  
31/7/24  
  
31/7/24



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

“Jnana Sangama”, Belagavi-590 018



Mini Project Report

on

**“SIMULATION AND ANALYSIS OF POWER ELECTRONIC CONVERTERS”**

submitted in partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SHIBAJEET MUKHERJEE**

**(1MV21EE048)**

**SHIVAM PANDEY**

**(1MV21EE050)**

**SULAIM AHMED**

**(1MV21EE057)**

**SYED ZUBEAR AHMED**

**(1MV22EE448)**

Under the Guidance of

**Mrs. Bindiya Tyagi**

Assistant Professor

Dept of Electrical & Electronics Eng.,

SIR M. VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA))  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

**Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157**

**Department of Electrical & Electronics Engineering**



## CERTIFICATE

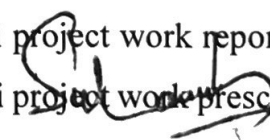
Certified that the mini project work entitled “*Simulation and Analysis of Power Electronic Converters*” carried out by **Mr. SHIBAJEET MUKHERJEE (1MV21EE048), Mr. SHIVAM PANDEY (1MV21EE050), Mr. SULAIM AHMED (1MV21EE057) and Mr. SYED ZUBEAR AHMED (1MV22EE448)** bonafide students of **Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature Guide

Mrs. Bindiya Tyagi

  
Signature of HOD

Dr. Suresh H. L.

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157  
Signature of Principal



Prof. Rakesh S. G.

## INTERNAL VIVA-VOCE

**Name of Examiners**

1. Dr. Ashwini. A V
2. Dr. Rekha S

**Signature with Date**

  
31/7/24  
  
31/7/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini Project Report

on

## “ELECTRICITY BILLING SYSTEM”

submitted in partial fulfillment of the requirements for the award of the degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

SPOORTHY M

1MV21EE055

MOHAN PRASAD V

1MV22EE424

SHRAVAN KUMAR B

1MV22EE440

VISHAL V S

1MV22EE458

Under the Guidance of

**Dr. Ashwini. AV**

Assistant Professor,

Dept. of Electrical & Electronics Eng.,

SIR M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**2023-2024**



Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

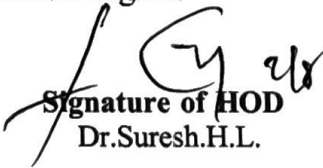
Department of Electrical & Electronics Engineering

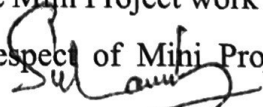


CERTIFICATE

Certified that the Mini Project work entitled “ELECTRICITY BILLING SYSTEM” carried out by SPOORTHI.M[1MV21EE055], MOHAN PRASAD V[1MV22EE424], SHRAVAN KUMAR B [1MV22EE440], VISHAL V S[1MV22EE458] a bonafide students of Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of Mini Project work prescribed for the above- mentioned degree.

  
Signature of Guide  
Dr.Ashwini AV

  
Signature of HOD  
Dr.Suresh.H.L.

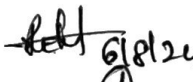

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hampi, Bellary District, Karnataka-562157  
Signature of Principal  
Prof.Rakesh.S.G.

Name of Examiner

INTERNAL VIVA

Signature with Date

1. Dr. Rekha S
2. Dr. Ashwini AV

  
6/8/24  
  
6/8/24



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“Jnana Sangama”, Belagavi-590 018**



## **Mini Project Report**

**on**

### **“PERFORMANCE ANALYSIS OF VARIOUS MACHINE LEARNING ALGORITHMS OF REMAINING USEFUL LIFE(RUL) FOR LITHIUM ION BATTERIES”**

submitted in partial fulfillment of the requirements for the award of the degree of

## **BACHELOR OF ENGINEERING**

**IN**

## **ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**AVESH KHARANI**

**1MV21EE007**

**DARSHAN.H.B**

**1MV21EE012**

**KASA VANDANA**

**1MV21EE023**

**LAKSHMI.K.G**

**1MV21EE030**

Under the Guidance of

Mrs. Rekha Radhakrishnan

Assistant Professor

Dept. of Electrical & Electronics Eng.,

SIR M.VIT, Bengaluru



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

Certified that the Mini Project work entitled “**PERFORMANCE ANALYSIS OF REMAINING USEFUL LIFE (RUL) FOR LITHIUM ION BATTERIES**” carried out by **AVESHKHARANI [1MV21EE007], DARSHAN H.B [1MV21EE012], KASAVANDANA [1MV21EE023], LAKSHMI K.G [1MV21EE030]**, bonafide students of **Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of Mini Project work prescribed for the above- mentioned degree.

Signature of Guide  
Mrs. Rekha Radhakrishnan

Signature of HOD  
Dr. Suresh H.L.

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Humasamaranahalli  
International Airport Road, Bengaluru-562 157  
Prof. Rakesh S.G.

Name of Examiner

INTERNAL VIVA

Signature with Date

1. Dr. Rekha S
2. Dr. Ashwini - A V



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



Mini Project Report

on

## “A FOUR PORT DC-DC CONVERTER FOR A STANDALONE WIND AND SOLAR ENERGY”

submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**

IN

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**TEJAS MOURYA. L. V**

**1MV21EE059**

**SANJAY. S. P**

**1MV22EE436**

**SANTHOSH. M**

**1MV22EE438**

**SUCHIT**

**1MV22EE443**

Under the Guidance of

**Mrs. Harshithananda. B**

Assistant Professor,

Dept. of Electrical & Electronics Engineering

SIR M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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Bengaluru – 562157


Department of Electrical & Electronics Engineering

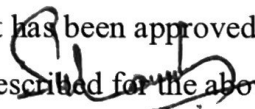


## CERTIFICATE

Certified that the Mini Project work entitled “A FOUR PORT DC-DC CONVERTER FOR A STANDALONE WIND AND SOLAR ENERGY” carried out by TEJAS MOURYA.L.V [1MV21EE059], SANJAY.S.P [MV22EE436], SANTHOSH.M [1MV22EE438], SUCHIT [1MV22EE443] a bonafide students of Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of Bachelor of Engineering in Electrical & Electronics Engineering of the Visvesvaraya Technological University, Belagavi 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of Mini Project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Mrs. Harshithananda. B

  
Signature of HOD  
Dr. Suresh. H. L.  
PROF. & HEAD

  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562157  
Signature of Principal  
Prof. Rakesh. S. G.

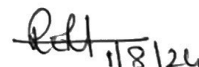
DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157

Name of Examiner


INTERNAL VIVA

Signature with Date

1. Dr. Rekha S

  
11/8/24

2. Harshithananda B.

  
11/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

### “IMAGE PROCESSING USING FPV DRONE”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**SANTOSH**

**- 1MV22EE439**

**PAVANKUMAR**

**- 1MV22EE430**

**VEERESH KUMAR NAVALAGUND**

**- 1MV22EE452**

Under the Guidance of

Ms. P. Kezia Joy Kumari

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**2023–2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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Bengaluru – 562157

Department of Electrical & Electronics Engineering




## CERTIFICATE

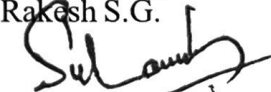
Certified that the mini project work entitled “Image processing using FPV drone” carried out by

**SANTOSH (1MV22EE439), PAVANKUMAR (1MV22EE430), VEERESH KUMAR NAVALAGUND (1MV22EE452),** a bonafide students of **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru** in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The mini project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
**Signature Guide**  
Ms. P. Kezia Joy Kumari

  
**Signature of HOD**  
Dr. Suresh H.L.  
**PROF. & HEAD**  
**DEPT. OF ELECTRICAL & ELECTRONICS ENGG.**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
Krishnadevarayanagar, Hunasamaranahalli  
(Via) Yelahanka, Bengaluru - 562 157  
**INTERNAL VIVA**

**Signature of Principal**  
Prof. Rakesh S.G.

  
**PRINCIPAL**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
Krishnadevarayanagar, Hunasamaranahalli  
International Airport Road, Bangalore-562 157

**Name of Examiners**

**Signature with Date**

1. Dr. REKHA S
2. P. Kezia

  
6/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



## Mini-Project Report

on

### “FAULT ANALYSIS UTILIZING POWER SYSTEM STABILIZER IN INTERCONNECTED NETWORK BY ENHANCING GRID STABILITY”

submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF ENGINEERING

IN

## ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

**BHARATH R** -1MV22EE403  
**CHANNABASAVA G** - 1MV22EE407  
**HARSHA G J** - 1MV22EE412

Under the Guidance of

Dr. Siddappaji M. R  
Assistant Professor,  
Dept. of Electrical & Electronics Eng.,  
Sir MVIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY

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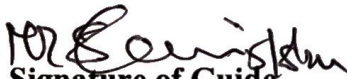
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157


## Department of Electrical & Electronics Engineering




### CERTIFICATE

Certified that the mini project work entitled “**FAULT ANALYSIS UTILIZING POWER SYSTEM STABILIZER IN INTERCONNECTED NETWORK BY ENHANCING GRID STABILITY** ” carried out by **BHARATH R , USN:1MV22EE403, CHANNABASAVA G, USN:1MV22EE407, HARSHA G J, USN:1MV22EE412**, a bonafide students of Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bengaluru in partial fulfillment for the requirements for the award of the degree of **Bachelor of Engineering in Electrical & Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** 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 department library. The Mini Project work report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the above-mentioned degree.

  
Signature of Guide  
Dr.Siddappaji M.R

  
Signature of HOD  
Dr.Suresh H. L



  
PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunasamaranahalli  
Internal Assessment Report  
Signature of Principal  
Prof.Rakesh S.G

### Internal Viva

Name of Examiners

1. Dr. R. Swaprathan.
2. Mr. Kumaraswamy. R.

Signature with Date

  
  
09/08/24.  
9/8



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Juana Sangama", Belagavi-590 018



## Internship Report

on

## "Automated Parking System using ML"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**AASTHA**

**1MV21EE001**

Under the Guidance of

**Dr. Mahesh K**

Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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**2023-2024**



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(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERNSHIP entitled "**Automated Parking System using ML**" is carried out by **AASTHA** of **USN 1MV21EE001**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 25<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

**Signature of Internal Guide**

**Signature of HOD**

21/8/24



002

# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"JnanaSangama", Belagavi-590018



## Internship Report on

### "AUTOMATED PARKING SYSTEM USING ML"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
**AAYUSHI SRIVASTAVA**  
**1MV21EE002**

Under the Guidance of

**Dr. Mahesh K.**  
Assistant Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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**2023-2024**



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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

This is to certify that the INTERNSHIP entitled "AUTOMATED PARKING SYSTEM USING ML" is carried out by Ms AAYUSHI SRIVASTAVA of USN 1MV21EE002, a bonafide student of

Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering in Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Internal Guide

Signature of HOD

02/08/24



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**ABHISHEK KUMAR**

**1MV21EE003**

Under the Guidance of

**Dr. Mahesh K**

Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

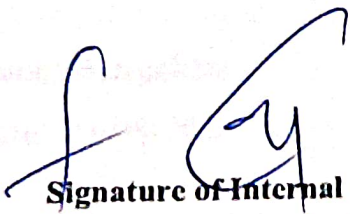
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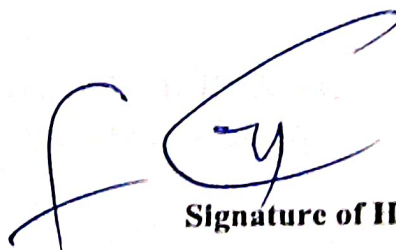
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

This is to certify that the INTERNSHIP entitled "**FULL STACK WEB DEVELOPMENT**" is carried out by **Mr. ABHISHEK KUMAR** of USN **1MV21EE003**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics.

  
Signature of Internal Guide  
2/8

  
Signature of HOD  
2/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by  
**AISHWARYA.S. S**  
**1MV21EE004**

Under the Guidance of

**Dr. MAHESH. K**  
Professor



**Department of Electrical & Electronics Engineering**  
**M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, Accredited by NAAC and NBA)  
M. Visvesvaraya Institute of Technology, Mysore Road, Krishnadevaraya Nagar, Bengaluru - 562157

**2023-2024**



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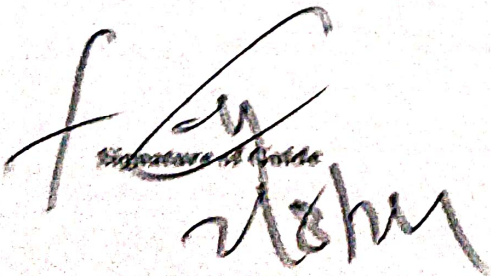
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Bengaluru - 562157

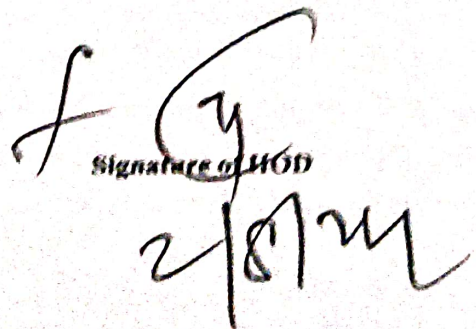
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certify that the INTERSHIP entitled "Method to detect, measure, analyze the temperature and vibration of transformers using HVT" is carried out by the candidate AISHWARYA.S.S(IMV21EEF104), from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the Department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
2/8/24



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-590 018



Internship Report  
on

## “SUSTAINABLE FARMING”

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**ANUSHA BASANAGOWDA HATTI**  
**USN:1MV21EE005**

Under the Guidance of

**DR. MAHESH K**  
Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-2024



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## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled "SUSTAINABLE FARMING" is carried out by the candidate ANUSHA BASANAGOWDA HATTI- 1MV21EE005, from 25<sup>th</sup> October 2023 to 24<sup>th</sup> November 2023, who is a bonfide student of 6<sup>th</sup> semester at Sir M Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD

21/11/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS  
ENGINEERING**

Internship Diary  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS  
USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**ARUN KUMAR**  
1MV21EE006

Under the Guidance of

**Dr.MAHESH.K**  
Professor

Department of Electrical and Electronics  
Engineering, Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

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Bengaluru - 562157



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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate ARUN KUMAR -1MV21EE006, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by  
**BHARATH BHUSHAN S.B**  
**1MV21EE008**

Under the Guidance of

**Dr. C V Mohan**  
Associate Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023-2024**



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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “Method to detect, measure, analyze the temperature and vibration of transformers using IIOT” is carried out by the candidate Bharath Bhushan S.B(1MV21EE008), from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report On**

### **"MACHINE LEARNING WITH PYTHON"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**AVESH**

**KIHARANI**

**1MV21EE007**

Under the Guidance of

**DR.MAHESH .K**

~~Associate~~ Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru -562157

**2023-2024**



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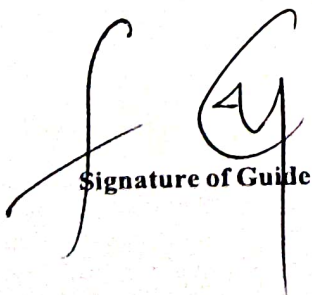
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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

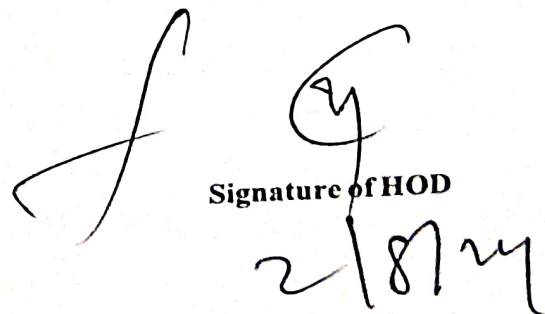
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “MACHINE LEARNING WITH PYTHON” is carried out by the candidate **AVESH KHARANI-1MV21EE007**, from 27<sup>th</sup> October to 1<sup>st</sup> December who is a bonafide student of 6<sup>th</sup> Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the internship report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
2/8/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018

**Internship Report**

on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by  
**CHANDAN. S**  
**1MV21EE009**

Under the Guidance of

**Dr. C V Mohan**  
Associate Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru - 562157

**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

It is to certified that the INTERNSHIP entitled "Method to detect, measure, analyze the temperature and vibration of transformers using IIOT" is carried out by the candidate Chandan S(1MV21EE009), from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Bangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by  
**CHANDRASHEKAR K.N**  
**1MV21EE010**

Under the Guidance of

**Dr. C V Mohan**  
Associate Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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Off Kempegowda International Airport Road, Krishnadasvaraya Nagar,

Bengaluru - 562157

## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled "Method to detect, measure, analyze the temperature and vibration of transformers using HOT" is carried out by the candidates Chandrashekar K.N(IMV21EE010), from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jana Sampada", Belagavi-590 018



Internship Report  
on

**"NURTURING YOUNG MINDS: A RURAL EDUCATION  
INITIATIVE AT ANGANWADI"**

Submitted in partial fulfillment of the requirements for the award of the Degree (21BNT08)

Submitted by

**DARSHAN GOWDA P**  
USN: 1MV21EE011

Under the guidance of

**Dr. C.V Mohan**  
Associate Professor,



**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kengeri Road International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

2023 - 2024



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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

**Department of Electrical & Electronics Engineering**



**CERTIFICATE**

It is to certified that the INTERNSHIP entitled " NURTURING YOUNG MINDS: A RURAL EDUCATION INITIATIVE AT ANGANWADI " is carried out by the candidate **DARSHAN GOWDA P- 1MV21EE011**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of  
Dr. CV Mohan

Signature of HOD



THE CERTIFICATE PROVIDED BY THE ANGANWADI



**Anganwadi Kendra**

Nelkunte , Bangalore North Taluk , Bengaluru Urban District

**INTERNSHIP COMPLETION CERTIFICATE**

This is to certify that **Darshan Gowda P**, the student of **Sir M Visvesvaraya Institute of Technology** bearing the USN **1MV21EE011** has successfully completed the INTERNSHIP entitled "**Societal related activities**" at Anganwadi Kendra , from 25-10-23 to 24-11-23 .

During this period, he was actively involved in assisting students with their learning activities. He demonstrated a high level of commitment, responsibility, and enthusiasm in performing his duties and contributed significantly to the educational development of the students.

Issuing Person's Name : **M. Kothala .**

Designation : **ಬಿಲ್ಡ್‌ಉಪಕಾರಿ.**

Signature **M .Kothala .**

**ಅಂಗವಾಡಿ ಕಾರ್ಯದರ್ಶಿ**

**ಬಿಲ್ಡ್‌ಉಪಕಾರಿ II**  
**ಅಂಗವಾಡಿ ಕಾರ್ಯದರ್ಶಿ**



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



Internship Report  
On

**"MACHINE LEARNING WITH PYTHON"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by  
**DARSHAN HB**  
1MV21EE012

Under the Guidance of

**C.V.MOHAN**  
Associate Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-2024



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Old Kempasgowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562137

**Department of Electrical & Electronics Engineering**



**CERTIFICATE**

It is to certified that the INTERNSHIP entitled "MACHINE LEARNING WITH PYTHON" is carried out by the candidate **DARSHAN HB-1MV21EE012**, from 27<sup>th</sup> October 2<sup>nd</sup> to 1<sup>st</sup> December 2023 is a bonafide student of 6<sup>th</sup> Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the internship report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of BOD

21/8/24





**Compsoft Technologies**

Providing a Complete Suite of IT Solutions

## CERTIFICATE OF INTERNSHIP

This is to certify that Darshan HB whose UAN is 18021446012, has completed their Machine Learning with Python (Research Based) Internship organised and handled by Compsoft Technologies from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled Chatbot for Healthcare System Using AI for UG Improvement Program, As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highlighting its flaws by understanding the design briefs and client specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, click here



No. 363, 19<sup>th</sup> main road,  
1<sup>st</sup> Block Rajajinagar  
Bangalore - 560010

18021446012

18021446012

This certificate was generated using CERTIFY.CAD



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnananugraha", Belagavi-590 018



## Internship Report

(on)

### "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IROT"

*Submitted in partial fulfillment for the award of degree (2119142)*

Submitted by  
**DARSHAN M L**  
IMV21EE013

*Under the Guidance of*

**Dr. C.V. MOHAN**  
*Associate Professor*



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-2024



## Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

### Department of Electrical & Electronics Engineering



## CERTIFICATE

It is to certified that the INTERNSHIP entitled “Method to detect, measure, analyze the temperature and vibration of transformers using IOT” is carried out by the candidate DARSHAN M L(1MV21EE013), from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD



Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

**CERTIFICATE OF INTERNSHIP**

This is to Certify that, **Darshan ML**, 6th Semester - EEE at Sir M Visvesvaraya  
Institute of Technology Bengaluru, has carried out the Internship conducted by  
Harmonizer India Pvt Ltd

**Topic:** Method to detect, measure, analyze temperature and vibration of  
Transformers using HOT

**Internship Period:** 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

A handwritten signature in black ink, appearing to be 'M.R. Srinivas'.

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

A handwritten signature in black ink, appearing to be 'Dr. Suresh H L'.

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**

557, 1st Main, 15th Cross, RHCS Layout,  
Bisandhadakavali, Nagarthavi,



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report on "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
DURGA K  
1MV21EE014

Under the Guidance of

Dr.C.V. Mohan  
Associate Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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2023-2024



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## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the INTERNSHIP entitled “FULL STACK WEB DEVELOPMENT” is carried out by **Ms.Durga K** of **USN-1MV21EE014**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Internal Guide

Signature of HOD



## CERTIFICATE ISSUED BY VARCONS TECHNOLOGIES



**Varcons Technologies Pvt Ltd**  
Communicate. Collaborate. Create

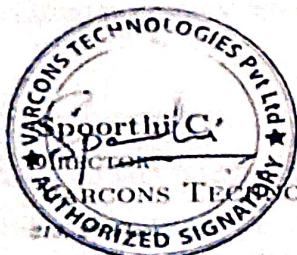
### CERTIFICATE OF INTERNSHIP

This is to certify that **Durga K** whose USN is **1MV21EE014**, has completed their **Full Stack Web Development** Internship organised and handled by **Varcons Technologies Pvt. Ltd** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Web Template to build Interactive Resume on Site**. This project was aimed at creating fully-fledged functional **web template(s)** for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, [CLICK HERE](#)



18 M G Road, Ulsoor, Bangalore-560001

[www.varconstech.com](http://www.varconstech.com)

[contact@varconstech.com](mailto:contact@varconstech.com)

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**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"SUSTAINABLE FARMING"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**INDUMATHI T C**  
**1MV21EE016**

Under the Guidance of

**Mrs. D Beula**

Associate Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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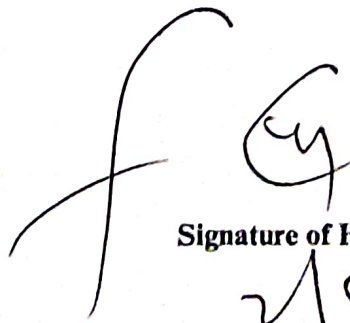
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to be certified that the INTERNSHIP entitled "SUSTAINABLE FARMING" is carried out by the candidate **INDUMATHI T C - 1MV21EE016**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
08/08/24  
Signature of Gulde

  
Signature of HOD  
21/8/24





# CERTIFICATE



This is to certify that,

Indumathi.T.C (1MV21EE016)

has successfully completed one-month short term Internship under the societal domain, from 26-10-2023 to 23-11-2023 in Krishi Vigyaan Kendra (Taluk Agriculture Office Holalkere, Chitradurga)

GURUMURTHY.K.T

Vice-president

(taluk agriculture office Holalkere)

KUMAR.N

Senior-assitant director  
of Horticulture



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

### "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**JAYSHREE VS  
1MV21EE018**

Under the Guidance of

**Mrs. D. Beula**  
Associate Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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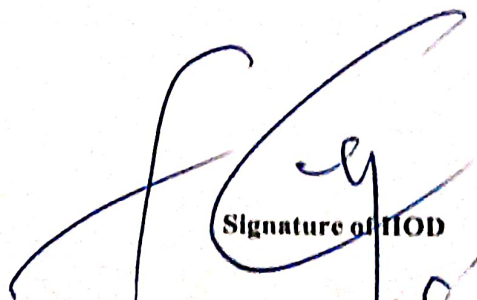
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “Method to detect, measure, analyse the temperature and vibration of transformers using IOT” is carried out by the candidate JAYSHREE VS-1MV21EE018, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
2/18/23





**HARMONIZER INDIA PVT LTD**

202, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Jayshree V S**, 6th semester - EEE at BIR M  
Vivekavaraya Institute of Technology Bengaluru, has carried out the Internship conducted  
by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using HOT

Internship Period: 25th October 2023 to 24th November 2023

He/she was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

**M.R. Srinivas**

CFO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**

\* 657, 1st Main, 16th Cross, RHCS Layout,  
Gandhadakavali, Nendrabavi,

**Dr. Suresh H L**

HOD - EEE

BIR M Vivekavaraya Institute of Technology



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report on

"Entrepreneurship in Drone Components Manufacturing Industry"

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

K.B MITHUN CARIAPPA

IMV21EE019

Under the Guidance of

Ms. D. Beula

Associate Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-2024



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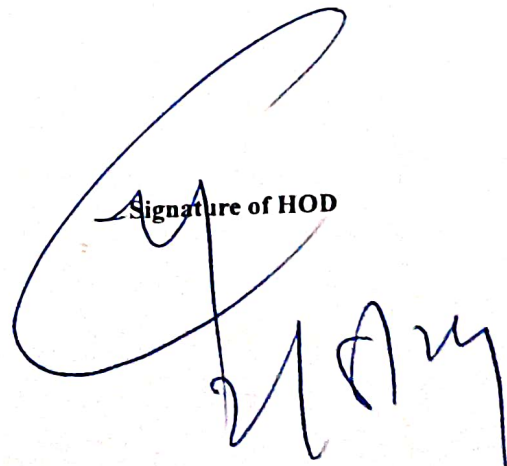
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “**Entrepreneurship in Drone Components Manufacturing Industry**” is carried out by the candidate K.B MITHUN CARIAPPA(1MV21EE019), from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
05/08/24  
Signature of Guide

  
Signature of HOD



## Certificate issued by Dyut Motors




Dyut Motors

### CERTIFICATE OF INTERNSHIP

This certificate acknowledges that K B Mithun Cariappa, bearing USN 1MV21EE019 of Sir. M. Visvesvaraya Institute Of Technology, has satisfactorily completed an Internship program within the Entrepreneurship Category at Dyut Motors from October 25, 2023, to November 23, 2023.

The recipient of this certification has actively participated in diverse activities vital to the company's establishment phase, testing, prototyping, and the manufacturing processes of our products.

During the course of internship, they demonstrated good design skills with a self-motivated attitude to learn new things. Their performance exceeded expectations and was able to complete the tasks assigned successfully.

  
Bhavya K S  
FOUNDER  
DYUT MOTORS  
#21B, GEVR Layout,  
5th Floor Arcade Rd,  
Jalakar, Bengaluru - 560064





020  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Dairy**

on

**"SUSTAINABLE FARMING"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**K. UDAY KETHAN**

**1MV21EE020**

Internal Guide

**Mrs. D BEULA**

Associate Professor

External Guide

**Mr. Kumar N**

Senior Assistant Horticulture

Holalkere, Chitradurga



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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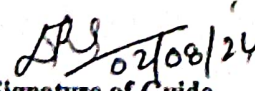
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru 562157

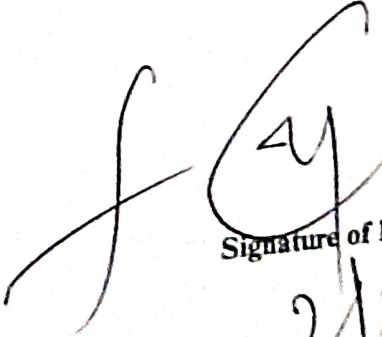
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to be certified that the INTERNSHIP entitled "SUSTAINABLE FARMING" is carried out by the candidate K. UDAY KETHAN - 1MV21EE020, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
2/8/24



THE CERTIFICATE PROVIDED BY THE COMPANY



# CERTIFICATE



This is to certify that,

K. Uday kethan (1MV21EE020)

has successfully completed one-month short term Internship under the societal domain, from 26-10-2023 to 23-11-2023 in Krishi Vigyaan Kendra (Taluk Agriculture Office Holalkere, Chitradurga)

A handwritten signature in blue ink, appearing to be "C. K. Murthy".

CURUMURTHY.K.T  
Vice-president  
(Taluk agriculture office Holalkere)

A handwritten signature in blue ink, appearing to be "K. N. Kumar".

KUMAR.N  
Senior-assitant director  
of Horticulture



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report  
On

**"MACHINE LEARNING WITH PYTHON"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**KASA VANDANA**

**1MV21EE023**

Under the Guidance of

**Mrs. D. BEULA**

Associate Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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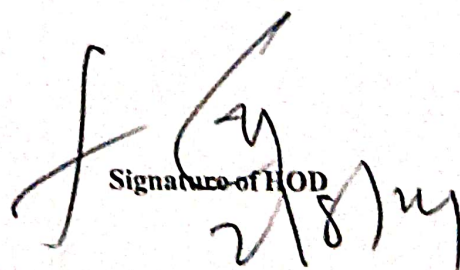
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "MACHINE LEARNING WITH PYTHON" is carried out by the candidate KASA VANDANA-1MV21EE023, from 27<sup>th</sup> October <sup>2023</sup> to 1<sup>st</sup> December <sup>2023</sup> who is a bonafide student of 6<sup>th</sup> Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the internship report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD



# THE CERTIFICATE PROVIDED BY THE COMPANY



**Compsoft Technologies**

Providing a Complete Suite of IT Solutions

## CERTIFICATE OF INTERNSHIP

This is to certify that Kasa Vandana whose USN is 1MV21EE023, has completed their Machine Learning with Python (Research Based) Internship organised and handled by Compsoft Technologies from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled Chatbot for Healthcare System Using AI for UE Improvement Program. As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model. Prepared a report highlighting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, [CLICK HERE](#)



No. 100/100 road,  
1<sup>st</sup> Block Rajytnagar  
Bangalore - 560010

[www.compsofttechnologies.com](http://www.compsofttechnologies.com)  
[services@compsofttechnologies.com](mailto:services@compsofttechnologies.com)

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# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "OVERVIEW OF EXPORT MANUFACTURING SBU"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**KHIVAN AVTAR**

**1MV21EE024**

Under the Guidance of

**Mrs. Beula D**

Associate Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

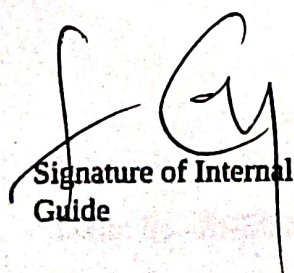
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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

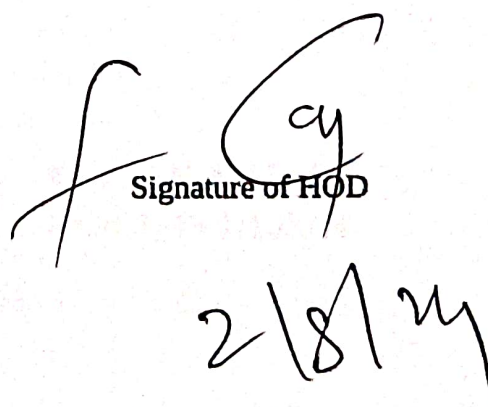
Department of Electrical & Electronics Engineering



## CERTIFICATE

This is to certify that the INTERNSHIP entitled “OVERVIEW OF EXPORT MANUFACTURING SBU” is carried out by Mr. Khivan Avtar of USN 1MV21EE024, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, from 30 October 2023 to 29 November 2023 .It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Internal  
Guide

  
Signature of HOD  
2/8/24



## CERTIFICATE ISSUED



### BHARAT ELECTRONICS LIMITED

(A Govt. of India Enterprise, Ministry of Defence)  
Jalahalli Post, Bengaluru - 560 013, India

#### CENTRE FOR LEARNING AND DEVELOPMENT

### Certificate

This is to certify that

Sri./Smt./Kum. KHIVAN, AVTAR .....  
Ref No. 1410/CLD/HR/R023-24/27/1132 .....  
student of SIR. M. V. S. VESHWARAYA INSTITUTE OF .....  
TECHNOLOGY - BANGALORE .....  
carried out Project Work/Internship on .....  
OVERVIEW OF EXPORT MANUFACTURING SBU .....  
in EXPORT MANUFACTURING .....  
SBU/CSG of BEL, Bengaluru from 30<sup>TH</sup> OCT 2023 .....  
to 29<sup>TH</sup> NOV 2023 .....

He/She was regular and punctual in his/her attendance  
and his/her conduct was satisfactory during the period.

  
Project / Internship Guide

Date : 29.11.2023

Place : Bengaluru

केमला राखंगमी थंगल  
CAMELA RAKHANGMI THANGAL  
ST. No. BCE 216443  
सहायक प्रबंधक (प्र. सं/ कम्प्यूटर्स व ईआर)  
ASST. MANAGER (HR / COMPS & RM)

  
Head (HR/CLD)

एच. ए. ए. ए. ए.  
MANAGER (HR/CLD)  
एच. ए. ए. ए. ए.  
BHARAT ELECTRONICS LTD.  
JALAHALLI POST, BANGALORE - 560 013



# **WISEVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report**

on

## **"METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**KRUTHIK GOWDA M**

**1MV21EE027**

Under the Guidance of

**Mrs. D.Beula**

Associate Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru -562157

**2023-2024**



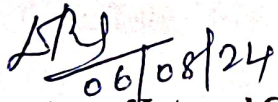
# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

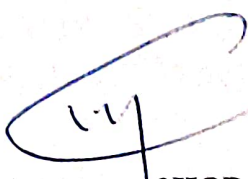
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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157  
**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERNSHIP entitled “METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT” is carried out by **Mr.KRUTHIK GOWDA M** of **USN 1MV21EE027**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023- 2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
06/08/24  
**Signature of Internal Guide**

  
**Signature of HOD**





## CERTIFICATE ISSUED BY HARMONIZER INDIA PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Kruthik Gowda M**, 6th Semester - EEE at Sir M  
Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted  
by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using IOT

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 15th Cross, RMCS Layout,  
Sriganahadakavali, Nagarchavali,  
BANGALURU

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS  
USING IOT"**

*Submitted in partial fulfillment for the award of degree (211NT68)*

Submitted by

**KRUTHIK KRISHNAMURTHY**  
**1MV21EE028**

Under the Guidance of

**Dr. R Sivapriyan**  
Associate Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
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**2023-2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)


Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

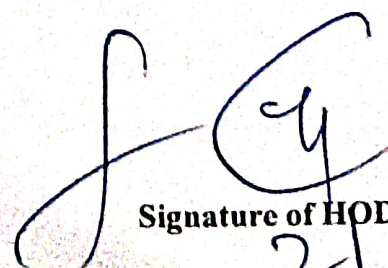
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT" is carried out by the candidate **KRUTHIK KRISHNAMURTHY- 1MV21EE028**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of  
Internship Guide

  
Signature of HOD  
21/8/24



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS  
USING IOT"**

*Submitted in partial fulfillment for the award of degree (21INT68)*

Submitted by

**KRUTHIK KRISHNAMURTHY**  
**1MV21EE028**

Under the Guidance of

**Dr. R Sivapriyan**  
Associate Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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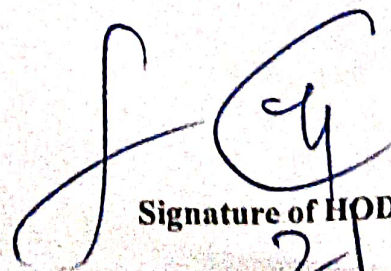
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT" is carried out by the candidate **KRUTHIK KRISHNAMURTHY- 1MV21EE028**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of  
Internship Guide

  
Signature of HOD  
21/11/24



rtificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

1st, 2nd, and 3rd floor, 11th Block, Marlingappa  
Kattappa, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Kruthik Krishnamurthy**, 6th Semester - EEE  
at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship  
conducted by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using IOT

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

A handwritten signature in black ink, appearing to be 'M.R. Srinivas'.

**M.R. Srinivas**

CTO

Harmonizer India Pvt Ltd

A handwritten signature in blue ink, appearing to be 'Dr. Suresh H L'.

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
# 357, 1st Mile, 15th Cross, HPCB Layout,  
Bengaluru



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
**on**

## **"NURTURING YOUNG MINDS: A RURAL EDUCATION INITIATIVE AT ANGANWADI"**

Submitted in partial fulfilment of the requirements for the award of the Degree (21INT68)

Submitted by

**KUSHAL G DIVAKAR**  
**USN: 1MV21EE029**

Under the guidance of

**Dr. R. Sivapriyan**  
Associate Professor,



**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**




**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

It is to certified that the INTERNSHIP entitled " NURTURING YOUNG MINDS: A RURAL EDUCATION INITIATIVE AT ANGANWADI " is carried out by the candidate **KUSHAL G DIVAKAR– 1MV21EE029**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of *06/08/24*  
Dr. R. Sivapriyan

Signature of HOD





## Anganwadi Kendra

Nelkunte , Bangalore North Taluk , Bengaluru Urban District

### INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **Kushal G Divakar** the student of **Sir M Visvesvaraya Institute of Technology** bearing the USN **1MV21EE029** has successfully completed the **INTERNSHIP** entitled "**Societal related activities**" at Anganwadi Kendra , from 25-10-23 to 24-11-23 .

During this period, he was actively involved in assisting students with their learning activities. He demonstrated a high level of commitment, responsibility, and enthusiasm in performing his duties and contributed significantly to the educational development of the students.

Issuing Person's Name : **ಎಂ.ಕೆ.ಎಂ.ಎಂ.**

Designation : **ಆ.ಬ.ಬ.ಬ.**

Signature

**H. K. K. K.**

**ಎಂ.ಕೆ.ಎಂ.ಎಂ.**  
**ಆ.ಬ.ಬ.ಬ.**



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**

on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**LAKSHMI K G**  
**1MV21EE030**

Under the Guidance of

**Dr R SIVAPRIYAN**  
Associate Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
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**2023-2024**



1MV21EE030

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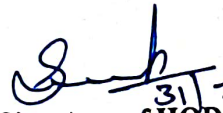
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT" is carried out by the candidate LAKSHMI K G -1MV21EE030, from 25<sup>th</sup> October to 24<sup>th</sup> November who is a bonfide student of 6<sup>th</sup> Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide 31/07/2024

  
Signature of HOD  
31/7/2024  
PROF. & HEAD

DEPT. OF ELECTRICAL & ELECTRONICS ENGG.  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Hunsuramanshalli  
(Via) Yelahanka, Bengaluru - 562 157



## Certificate Issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Angerashu, 3rd floor, 10th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560073

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Lakshmi K G**, 6th Semester - EEE at Sir M Visweswaraya  
Institute of Technology Bengaluru, has carried out the Internship conducted by  
Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using IEC

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

**M.R. Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visweswaraya Institute of Technology

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Trigunashaktinagar, Hegganahalli,  
Bengaluru, Karnataka 560073



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on

**"Empowering Education through Entrepreneurial Innovation"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

**Submitted by**

**M NISHANTH YADAV**  
**1MV21EE032**

**Under the Guidance of**

**Dr.R. SIVAPRIYAN**  
Associate Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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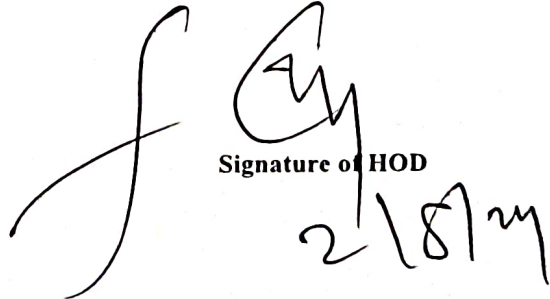
## Department of Electrical & Electronics Engineering



### CERTIFICATE

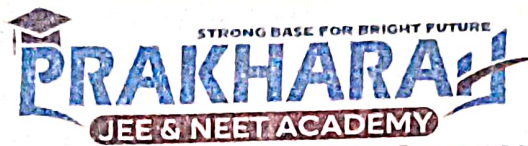
It is to certified that the INTERNSHIP entitled “**Empowering Education through Entrepreneurial Innovation**” is carried out by the candidate M NISHANTHN YADAV -1MV21EE032, from 25th October 2023 to 23th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
21/8/24



Certificate issued by PRAKHARAH IIT & NEET ACADEMY LLP



www.prakharah.com prakharah.edu@gmail.com 9008008367, 9036920201  
# Jay Complex, 1st floor, Ayyappaswamy Temple Road, Dasarahalli Main Road, Hebbal Kempapura, Bangalore-560024



## CERTIFICATE OF INTERNSHIP

This internship programme certificate is proudly  
awarded to

*Mr. M Nishanth Yadav*

For him outstanding completion of the  
internship programme in *ENTREPRENEURSHIP* at this  
PRAKHARAH IIT & NEET ACADEMY LLP  
from 25th October to 23th November 2023.

*Aneel Kumarr*  
CEO



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Draconis Sangamam", Bengaluru-560 010



**ELECTRICAL & ELECTRONICS  
ENGINEERING**

**INTERNSHIP REPORT**

ON

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS  
USING IOT"**

*Submitted in partial fulfillment for the award of degree (ZIENT6A)*

Submitted by

**LAKSHMIKANTH N G**  
**IMV21EE131**

Under the Guidance of

**Dr. R Sivapriyan**

Associate Professor

Department of Electrical and Electronics Engineering,

Sir M.V.T., Bengaluru



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

*(Approved by AICTE New Delhi, Affiliated to VTU, Bengaluru, ISO 9001:2008 Certified)*  
*Off Kempa Gowda International Airport Road, Krishnadevaraya Nagar,*  
*Bengaluru - 562157*



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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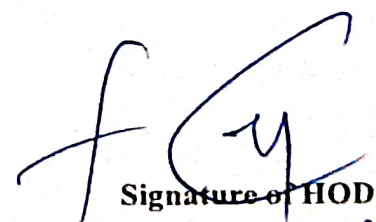
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT" is carried out by the candidate LAKSHMIKANTH N.G.- 1MV21EE031, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of  
Internship Guide

  
Signature of HOD

2/8/24



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**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Lakshminkanth NG**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R. Srinivas**

CTO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
# 292, 1st Main, 11th Cross, RECH Layout,  
Bijayanahally, Nagarbhavi,  
BANGALORE - 560 071.

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology



033

# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

Jnana Sangama," Belagavi-590 018



**Internship Report**  
On

## **"METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

### **BACHELOR OF ENGINEERING IN ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**MANOJ SC**

**USN: 1MV21EE033**

Under the Guidance of

**Internal Guide**

**Dr Sivapriyan**  
Associate Professor  
EEE Dept, Sir MVIT  
Bengaluru

**External guide**

**Mr Prashanth**  
Lead Manager  
Harmonizer India Private Ltd  
Sunkadakatte, Bengaluru



**Department of Electrical & Electronics Engineering**

## **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023-2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, Accredited by NAAC and NBA)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

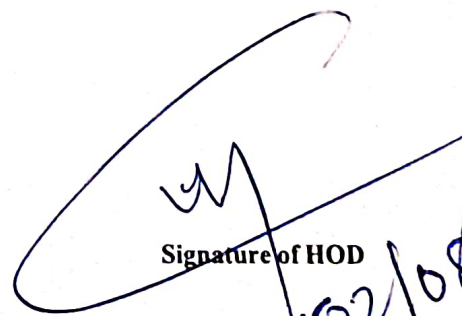
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyze the temperature and vibration of transformers using IIOT**” is carried out by the candidate **MANOJ.S.C(1MV21EE033)**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
02/08/24





## HARMONIZER INDIA PVT LTD

292, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Manoj S C**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 15th Cross, RHCS Layout,  
Srigandhadakavalli, Bengaluru



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report on "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
**MD RIZWAN KHAN P**  
**1MV21EE034**

Under the Guidance of

**Dr. R Sivapriyan**  
Associate Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY


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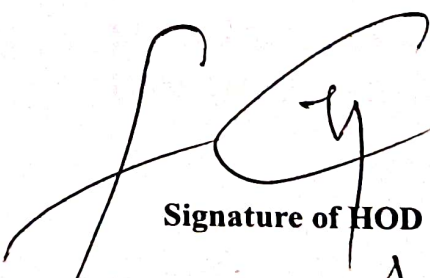
## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the INTERNSHIP entitled “FULL STACK WEB DEVELOPMENT” is carried out by Mr. RIZWAN KHAN P of USN 1MV21EE034, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Internal Guide 02/08/24

  
Signature of HOD  
02/08/24



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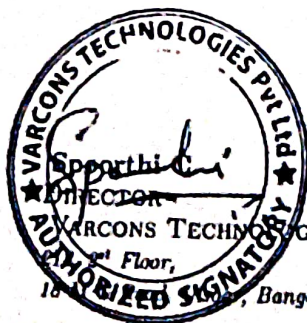
### CERTIFICATE OF INTERNSHIP

This is to certify that **Md Rizwan Khan P** whose USN is **1MV21EE034**, has completed their **Full Stack Web Development Internship** organised and handled by **Varcons Technologies Pvt. Ltd** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Template for Interactive Music Playlist Generator Site**. This project was aimed at creating fully-fledged functional **web template(s)** for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Juana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
**MIKET KUMAR**  
1MV21EE035

Under the Guidance of

**Mrs. P. SUMALATHA**  
Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

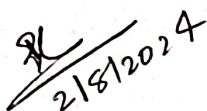
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**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERNSHIP entitled “FULL STACK WEB DEVELOPMENT” is carried out by **Mr. Miket Kumar** of USN 1MV21EE035, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
21/8/2024  
Signature of Internal Guide

  
Signature of HOD

02/08/24



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### CERTIFICATE OF INTERNSHIP

This is to certify that **Miket Kumar** whose USN is **1MV21EE035**, has completed their **Full Stack Web Development** Internship organized and handled by **Varcons Technologies Pvt. Ltd** from **27th October 2023** to **1st December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Template for Interactive Music Playlist Generator Site**. This project was aimed at creating fully-fledged functional web template(s) for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**MOHAMMED TAWAKKAL**

**1MV21EE037**

Under the Guidance of

**Mrs. P SUMALATHA**

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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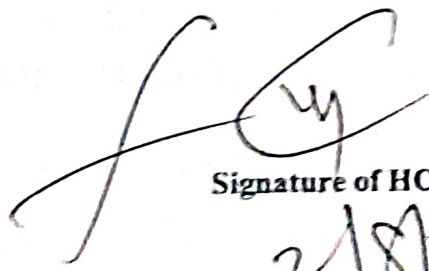
Department of Electrical & Electronics Engineering



## CERTIFICATE

This is to certify that the INTERNSHIP entitled "FULL STACK WEB DEVELOPMENT" is carried out by Mr. MOHAMMED TAWAKKAL PASHA of USN 1MV21EE037, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.


  
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21/08/24



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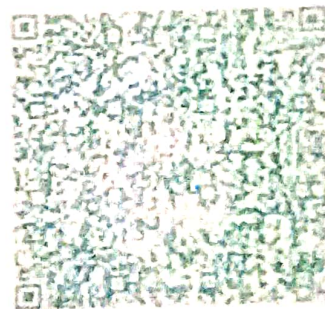
### CERTIFICATE OF INTERNSHIP

This is to certify that **Mohammed Tawakkal Pasha** whose USN is **IMV21EE03** has completed their **Full Stack Web Development Internship** organised and handled by **Varcons Technologies Pvt. Ltd** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Template for Virtual Interior Design showcase Site**. This project was aimed at creating fully-fledged functional web template(s) for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"SUSTAINABLE FARMING"**

*Submitted in partial fulfillment for the award of degree (21INT68)*

Submitted by  
**NAMRATHA S B**  
IMV21EE038

Under the Guidance of  
**Mrs. P Sumalatha**  
Assitant Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

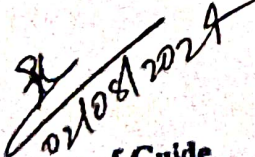
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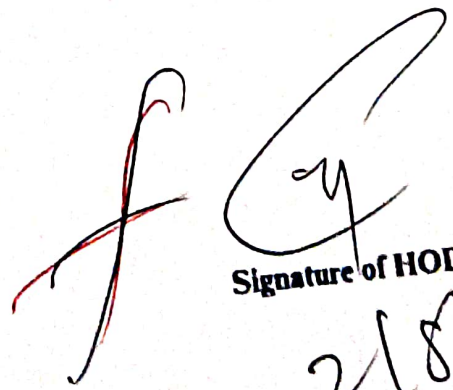
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to be certified that the INTERNSHIP entitled "SUSTAINABLE FARMING" is carried out by the candidate NAMRATHA S B - 1MV2IEE038, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide  
21/08/2024

  
Signature of HOD  
21/08/24



THE CERTIFICATE PROVIDED BY THE COMPANY



# CERTIFICATE



This is to certify that,

**Namratha.S.B(1MV21EE038)**

has successfully completed one-month short term Internship under the societal domain, from 26-10-2023 to 23-11-2023 in Krishi Vigyaan Kendra (Taluk Agriculture Office Holalkere, Chitradurga)

  
GURUMURTHY.K.T

Vice-president

(Taluk agriculture office Holalkere)

  
KUMAR.N  
Senior-assitant director  
of Horticulture



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report on "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
NISCHITH RAJ L C  
1MV21EE039

Under the Guidance of

Mrs. P SUMALATHA  
Assistant Professor



Department of Electrical & Electronics Engineering  
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**2023-2024**



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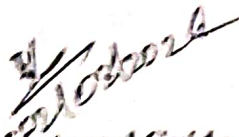
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## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the INTERNSHIP entitled "FULL STACK WEB DEVELOPMENT" is carried out by Mr. Nishith Raj L C of USN 1MV21EF039, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Vivevaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Internal Guide

  
Signature of HOD

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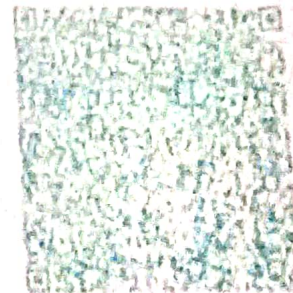
## CERTIFICATE OF INTERNSHIP

This is to certify that Nischith Raj L C whose USN is 18MV21EE039, has completed their Full Stack Web Development Internship organised and handled by Varcons Technologies Pvt. Ltd from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled Template for Virtual Interior Design showcase Site. This project was aimed at creating fully fledged functional web template(s) for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
Jnana Sangama," Belagavi-590 018

Internship Report  
On  
**"METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE  
AND VIBRATION OF TRANSFORMERS USING IOT"**

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**PRANATHI S**  
USN: 1MV21EE040

Under the Guidance of

**Internal Guide**  
**Ms Sumalatha P**  
Assistant Professor  
EEE Dept, Sir MVIT  
Bengaluru

**External guide**  
**Mr Prashanth**  
Lead Manager  
Harmonizer India Private Ltd  
Sunkadakatte, Bengaluru



Department of Electrical & Electronics Engineering  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-2024**



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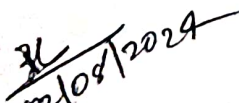
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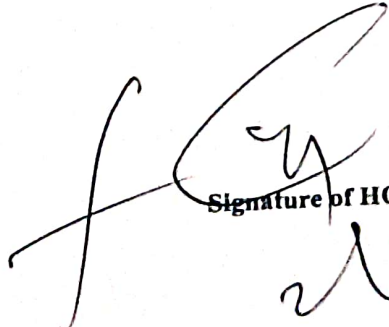
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “Method to detect, measure, analyse the temperature and vibration of transformers using IIOT” is carried out by the candidate PRANATHI.S -1MV21EE040, from 25th October to 24th November who is a bonfide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
20/10/2024  
Signature of Guide

  
Signature of HOD  
21/11/24



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10th, Ashwath, 1st Floor, 1st Block, Marthogalpet

Extremities, Bangalore, Karnataka 560002

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Pranathi S.** with harmonizer - IEEE at Sir M V Vivekananda Institute of Technology Bangalore, has served as the Internship conducted by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IOT

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R. Srinivas**

CTO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
10th, 1st Block, 1st Floor, Ashwath Layout,  
Bengaluru, Karnataka, Bangalore,  
BANGALORE - 560 002.

**Dr. Suresh H L**

HOD - IEEE

Sir M Vivekananda Institute of



041  
041

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



Internship Report  
on  
**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"**

*Submitted in partial fulfilment for the award of degree (2IINT68)*

Submitted by

**PRIYANKA.T**  
**1MV21EE041**

Under the Guidance of

**Mrs. P. Sumalatha**  
Assistant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-2024**



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Bengaluru – 562157

## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate **PRIYANKA .T -1MV21EE041**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

*31/02/08/2024*  
Signature of Guide

*[Signature]*  
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*21/8/24*



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**HARMONIZER INDIA PVT LTD**

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Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Priyanka T**, 6th Semester - EEE at Sir M Visvesvaraya  
Institute of Technology Bengaluru, has carried out the Internship conducted by  
Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using IIOT

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

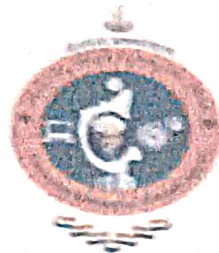
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Bengaluru, Karnataka



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report

on

**"ROBOTICS"**

*Submitted in partial fulfillment for the award of the degree (21NT68)*

Submitted by

**RAKSHITA MAHESH KANTHI**

**1MV21EE042**

Under the Guidance of

**Mrs. P. SUMALATHA**

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**2023-2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

It is to certified that the INTERNSHIP entitled "ROBOTICS" is carried out by the candidate **RAKSHITA MAHESH KANTHI - 1MV21EE042**, from 25th October 2023 to 30th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

*96*  
*02/10/2024*  
Signature of Guide

*[Signature]*  
Signature of HOD  
*02/08/24*



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## CERTIFICATE OF COMPLETION

We hereby certify that

**Rakshita Mahesh Kanthi**

From Electrical & Electronics Engineering with USN IMV21EE042 from the Sir. M. Visvesvaraya Institute Of Technology, has successfully completed the Robotics Internship held at comedkares innovation Hub, Yelahanka, Bengaluru from 25th October 2023 to 30th November 2023 . We at Comedkares Innovation Hub, appreciate your participation and effort in the internship and wish you the best in your future endeavours.

**Dr. S. Kumar**  
Executive Secretary - Comedkares

30th November 2023



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"**

*Submitted in partial fulfillment for the award of degree (21INT68)*

Submitted by

**RAVITEJA**  
**1MV21EE043**

Under the Guidance of

**Mrs. Rekha Radhakrishnan**  
Assistant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**2023-2024**



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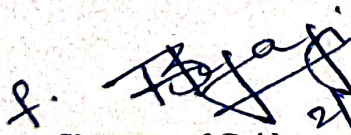
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Bengaluru – 562157

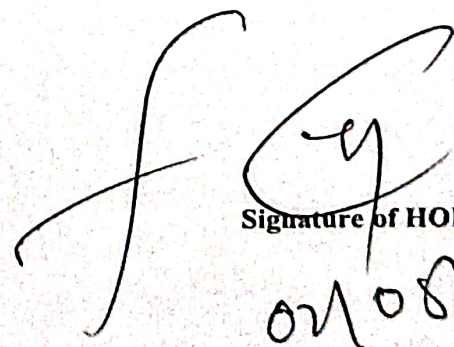
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “Method to detect, measure, analyse the temperature and vibration of transformers using IIOT” is carried out by the candidate **RAVITEJA -1MV21EE043**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

f.  21/11/24  
Signature of Guide

  
Signature of HOD  
02/10/24



## Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marilingappa

Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Raviteja G**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic:** Method to detect, measure, analyze temperature and vibration of Transformers using IOT

**Internship Period:** 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
557, 1st Main, 15th Cross, RUCS Layout,  
Srigandhadekavalu, Hagarbhevi,  
BANGALORE - 560 091.



1MV21EE044  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS ENGINEERING**  
**INTERNSHIP DIARY**  
on  
**"METHOD TO DETECT, MEASURE, ANALYZE**  
**TEMPERATURE AND VIBRATION OF TRANSFORMERS**  
**USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**ROHIT**

**1MV21EE044**

Under the Guidance of

**Mrs. Rekha Radhakrishnan**

Assistant Professor

Department of Electrical and Electronics  
Engineering, Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate ROHIT -1MV21EE044, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

f. *[Signature]*  
Signature of Guide 21/8/24

*[Signature]*  
Signature of HOD  
07/18/24



## Certificate issued by Harmonizer India PVT LTD



### HARMONIZER INDIA PVT LTD

202, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Rohit**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IOT

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 15th Cross, RHCO Layout,  
Srikanthapura, Bengaluru, Karnataka  
560072

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

## **"METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
**SELVA KANNAN K**  
**1MV21EE046**

Under the Guidance of

**Mrs. REKHA RADHAKRISHNAN**  
Assistant Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

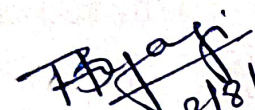
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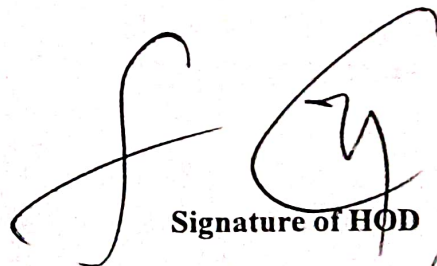
**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERNSHIP entitled "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT" is carried out by **Mr. Selva kannan k** of USN 1MV21EE046, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering, in Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 25<sup>th</sup> October to 23<sup>rd</sup> November. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

f.   
21/8/24  
Signature of Internal Guide

  
Signature of HOD  
21/8/24



# CERTIFICATE ISSUED BY HARMONIZER INDIA PVT LTD



## HARMONIZER INDIA PVT LTD

292, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Selva Kannan K**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 18th Cross, RHCB Layout,  
Brigandhakavatu, Nagerbavi,  
BANGALORE - 560 061



**VISEVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Juana Sangama", Belagavi-590 018



**Internship Report**

on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS  
USING IOT"**

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**SHARAN R**

**1MV21EE047**

Under the Guidance of

**Mrs. REKHA RADHAKRISHNAN**

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

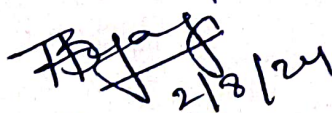
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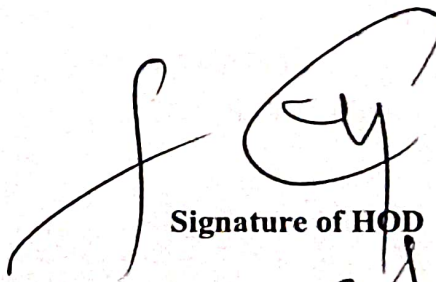
**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERNSHIP entitled “METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT” is carried out by **Mr. Sharan R** of USN 1MV21EE047, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering, in Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

f.   
Signature of Internal Guide

  
Signature of HOD  
21/8/24



## CERTIFICATE ISSUED BY HARMONIZER INDIA PVT LTD



**HARMONIZER INDIA PVT LTD**

202, Anjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Sharan R**, 6th Semester - EEE at Sir M Visveswaraya  
Institute of Technology Bengaluru, has carried out the Internship conducted by  
Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 18th Cross, RHCS Layout,  
Sriyandhadakavala, Nagabhavi,  
BANGALORE - 560 091.

**Dr. Suresh H L**

HOD - EEE

Sir M Visveswaraya Institute of Technology



048

**VISEVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnanā Sangama", Belagavi-590 018



**Internship Diary**

on

**"FULL STACK WEB DEVELOPMENT"**

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**SHIBAJEET MUKHERJEE**

**IMV21EE048**

Under the Guidance of

**Mrs. REKHA RADHAKRISHNAN**

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
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**2023-2024**



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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERNSHIP entitled "FULL STACK WEB DEVELOPMENT" is carried out by Mr. Shibajeet Mukherjee of USN 1MV21EE048, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October 2023 to 1<sup>st</sup> December 2023. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

for *IByagi* 2/8/24  
Signature of Internal Guide

*[Signature]* 02/08/24  
Signature of HOD



## CERTIFICATE ISSUED BY VARCONS TECHNOLOGIES



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### CERTIFICATE OF INTERNSHIP

This is to certify that **Shibajeet Mukherjee** whose USN is **1MV21EE048**, has completed their **Full Stack Web Development Internship** organised and handled by **Varcons Technologies Pvt. Ltd** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Template for Interactive Music Playlist Generator Site**. This project was aimed at creating fully-fledged functional web template(s) for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"NURTURING YOUNG MINDS: A RURAL EDUCATION  
INITIATIVE AT ANGANWADI"**

Submitted in partial fulfilment of the requirements for the award of the Degree (21INT68)

Submitted by

**SHIVAM KUMAR**  
USN: 1MV21EE049

Under the guidance of

**Mrs. Rekha Radhakrishnan**  
Assistant Professor,



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

2023 – 2024



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Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**Department of Electrical & Electronics Engineering**



**CERTIFICATE**

It is to certified that the INTERNSHIP entitled "NURTURING YOUNG MINDS: A RURAL EDUCATION INITIATIVE AT ANGANWADI" is carried out by the candidate SHIVAM KUMAR - 1MV21EE049, from 25<sup>th</sup> October 2023 to 24<sup>th</sup> November 2023, who is a bonfide student of 3<sup>rd</sup> Year at Sir M Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
6/10/24

Signature of Guide

Mrs. Rekha Radhakrishnan

Signature of HOD

Dr. Suresh H.L.





## Anganwadi Kendra

Neikunte , Bangalore North Taluk , Bengaluru Urban District

### INTERNSHIP COMPLETION CERTIFICATE

This is to certify that SHIVAM KUMAR, the student of Sir M Visvesvaraya Institute of Technology bearing the USN 1MV21EE049 has successfully completed the INTERNSHIP entitled "Societal related activities" at Anganwadi Kendra , from 25-10-23 to 24-11-23 .

During this period, he was actively involved in assisting students with their learning activities. He demonstrated a high level of commitment, responsibility, and enthusiasm in performing his duties and contributed significantly to the educational development of the students.

Issuing Person's Name : ಎಂ.ಕೆ.ಎಸ್.ಎಸ್.

Designation : ಅ.ಅ.ಕ.ಅ.

Signature

M. K. K. K.



**VISEVESVARAYA TECHNOLOGICAL UNIVERSITY**

*"Visuma Sampada" - Belagavi - 591 018*



**Internship Report**

**on**

**"MACHINE LEARNING WITH PYTHON"**

*Submitted in partial fulfillment for the award of the degree CIPN768*

**Submitted by**

**SHIVAM PANDEY**

**IMT DURGAM**

**Under the Guidance of**

**Mrs. REKHA RADHAKRISHNAN**

**Assistant Professor**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

*(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)*

*Off Campus at International Airport Road, Krishnaiah-Venky Nagar, Bengaluru - 560075*

**2023-2024**



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(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

This is to certify that the INTERNSHIP entitled "MACHINE LEARNING WITH PYTHON" is carried out by Mr. Shivam Pandey of USN 1MV21EE050, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of Bachelor of Engineering, in Electrical & Electronics under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

for *[Signature]* 21/8/24  
Signature of Internal Guide

*[Signature]*  
Signature of HOD  
02/10/24



## CERTIFICATE ISSUED BY VARCONS TECHNOLOGIES



**Varcons Technologies Pvt Ltd**

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### CERTIFICATE OF INTERNSHIP

This is to certify that **Shivam Pandey** whose USN is **1MV21EE050**, has completed their **Machine Learning With Python (Research Based)** Internship organised and handled by **Varcons Technologies Pvt. Ltd** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Social Media Sentiment Analysis**. This project was aimed at creating fully-fledged functional **web template(s)** for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report on

### "SOCIETAL RELATED ACTIVITIES"

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

SHIVARAJ N

1MV21EE051

Under the Guidance of

**Mr. KUMARASWAMY R**

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-2024



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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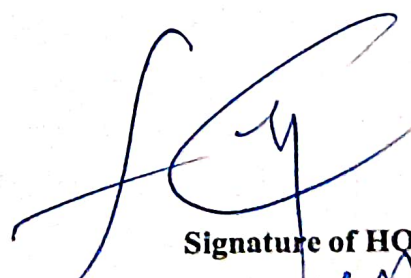
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is certified that the INTERNSHIP entitled "societal related activities" is carried out by the candidate, 1MV21EE051-SHIVARAJ N, from 25<sup>th</sup> October 2023 to 22<sup>th</sup> November 2023, who is a bonfide student of 6TH semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the Credits for the academic term 2023- 2024 , as part of the academic requirement during his / her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for Internal Assessment have been duly incorporated in the report and deposited in the department library. The Internship has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the course of Bachelor of Engineering in Electricals and electronics.

  
Signature Guide

  
Signature of HOD  
02/11/23



# THE CERTIFICATE PROVIDED BY THE COMPANY

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Krishnadevaraya Nagar, International Airport Road, Hinasimranahalli,  
Bengaluru - 562157


**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



## CERTIFICATE

It is certified that the INTERNSHIP entitled "Societal Related Activities" is carried out by the candidate IMV21EE051- SHIVARAJ N, from 25-10-2023 to 23-11-2023, who is a bonafide student of 5<sup>th</sup> semester at Sir M Visvesvaraya Institute of Technology, towards fulfillment of the award of the Credits for the academic term 2021- 2025, as part of the academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi.

The Internship has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the course of Bachelor of Engineering in Electrical And Electronics.

  
Name & Signature of  
Internship Guide/Mentor



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on

**"SOCIETAL RELATED ACTIVITIES"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**SHREE HARIPRASAD NAYAK**  
**1MV21EE052**

Under the Guidance of

**Mr. KUMARASWAMY R**  
Assistant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-2024**



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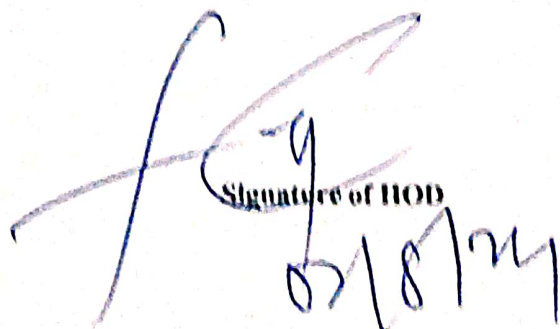
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certify that the Internship entitled "SOCIAL RELATED ACTIVITIES" is carried out by the candidate **SHREE HARIPRASAD NAYAK -1MV21EE052**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6<sup>th</sup> Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
07/11/24



## THE CERTIFICATE PROVIDED BY THE COMPANY

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

Krishnadeviaya Nagar, International Airport Road, Hinamaraiahalli,  
Bengaluru - 562157

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



### CERTIFICATE

It is certified that the INTERNSHIP entitled "Societal Related Activities" is carried out by the candidate IMV21EE052-SHREE HARIPRASAD NAYAK, from 25-10-2023 to 23-11-2023, who is a bonafide student of 5<sup>th</sup> semester at Sir M Visvesvaraya Institute of Technology, towards fulfillment of the award of the Credits for the academic term 2021- 2025, as part of the academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi.

The Internship has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the course of Bachelor of Engineering in Electrical And Electronics.

  
Name & Signature of  
Internship Guide/Mentor

FIELD ASSESSMENT  
MARS, RAICHUR



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama", Belagavi-590 018**



**Internship Report**

**on**

**"SOCIETAL RELATED ACTIVITIES"**

submitted in partial fulfillment of the requirements for the award of the Degree of(21INT68)

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**SHREYAS T GOWDA**

**USN:1MV21EE053**

Under the Guidance of

**Internal Guide**

**Mr.KUMARASWAMY R**

Assistant Professor,

Electrical & Electronics Engineering,

**External Guide**

**Mr. UMESH**

PDO,grama panchayat

Aremellanahalli, Turvekere,Tumkur.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Off International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

**2023– 2024**



# **Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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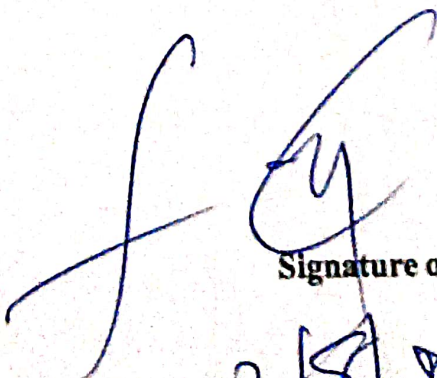
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is certified that the INTERNSHIP entitled "societal related activities" is carried out by the candidate, **1MV21EE053-SHREYAS .T. GOWDA**, from 25<sup>th</sup> October 2023 to 22<sup>th</sup> November 2023, who is a bonfide student of 6<sup>TH</sup> semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the Credits for the academic term 2023 - 2024, as part of the academic requirement during his / her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for Internal Assessment have been duly incorporated in the report and deposited in the department library. The Internship has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the course of Bachelor of Engineering in Electricals and electronics.

 *an. 2/*  
Signature Gulde  
of

  
Signature of HOD  
2/8/24





GRAMA PANCHAYAT AREMALLENAHALLI  
TURUVEKERE TALLUK TUMKUR DISTRICT


Pincode-572224

Date 7-6-2024

**CERTIFICATE OF INTERNSHIP**

It is certified that the internship entitled 'Societal Related Activities' is carried out by the candidate 1MV21EE053-SHREYAS T GOWDA, from 25-10-2023 to 22-11-2023, who is a bonafide student of 5<sup>th</sup> semester at sir M Vishveshwaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2021-2025, as part of the academic requirement during his Bachelor of engineering degree from the vishveshwaraya Technology University, Belagavi.

The internship has been approved as it satisfied the academic requirements in respect of intership work prescribed for the course of engineering in electricals and electronics.

 7/6/2024  
ಸೋಸಲೆ ಅಧ್ಯಕ್ಷರು  
ಇವರ ಸಹಿ  
ಅಧಿಕಾರಿಗಳು



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report  
on  
**"FULL STACK WEB DEVELOPMENT"**

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
**SPARSH KUMAR**  
**1MV21EE054**

Under the Guidance of

**Mr. Kumara Swamy R**  
Assistant Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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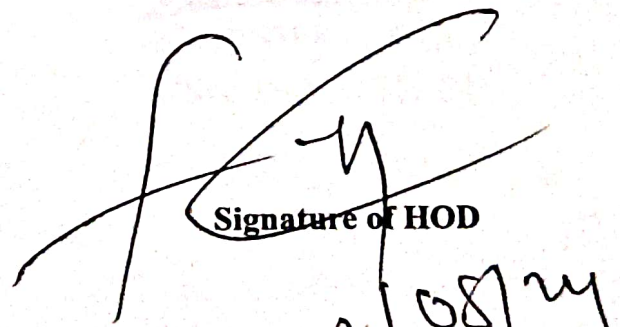
**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERNSHIP entitled “FULL STACK WEB DEVELOPMENT” is carried out by **Mr. Sparsh Kumar** of USN 1MV21EE054, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Internal Guide

  
Signature of HOD  
02/08/24



## CERTIFICATE ISSUED BY VARCONS TECHNOLOGIES



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### CERTIFICATE OF INTERNSHIP

This is to certify that **Sparsh Kumar** whose USN is **1MV21EE054**, has completed their **Full Stack Web Development Internship** organised and handled by **Varcons Technologies Pvt. Ltd** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Template for Interactive Music Playlist Generator Site**. This project was aimed at creating fully-fledged functional **web template(s)** for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report  
On

**"MACHINE LEARNING WITH PYTHON"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**SPOORTHY M**

**1MV21EE055**

Under the Guidance of

**Mr. Kumara Swamy**

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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2023-2024



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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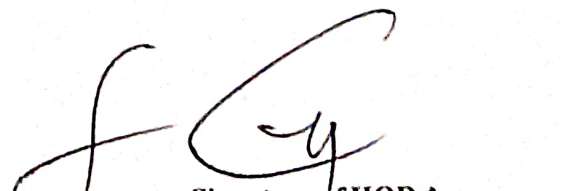
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “MACHINE LEARNING WITH PYTHON” is carried out by the candidate **SPOORTHY M-1MV21EE055**, from 27<sup>th</sup> October to 1<sup>st</sup> December who is a bonafide student of 6<sup>th</sup> Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the internship report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
21/8/24



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**Compsoft Technologies**

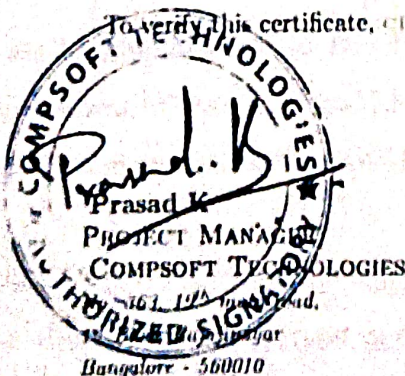
Providing a Complete Suite of IT Solutions

### CERTIFICATE OF INTERNSHIP

This is to certify that **Spoorthi M** whose USN is **1MV21EE055**, has completed their **Machine Learning with Python (Research Based)** Internship organised and handled by **Compsoft Technologies** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Chatbot for Healthcare System Using AI for UE Improvement Program**. As part of the project, They designed the Machine Learning Model. Demonstrated and tested the working of the Model, Prepared a report highlighting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.



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**VISEVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on

**"FULL STACK WEB DEVELOPMENT"**

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by  
**SULAIM AHMED NAVEED**  
**1MV21EE057**

Under the Guidance of  
**Mr. KUMARA SWAMY R**  
Assistant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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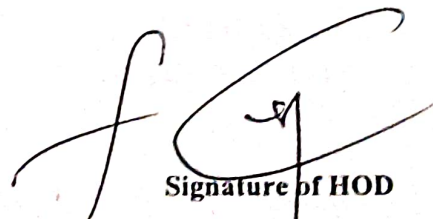
**Department of Electrical & Electronics Engineering**



## **CERTIFICATE**

This is to certify that the INTERSHIP entitled "FULL STACK WEB DEVELOPMENT" is carried out by **Mr. SULAIM AHMED NAVEED** of USN 1MV21EE057, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Internal Guide

  
Signature of HOD  
02/08/24



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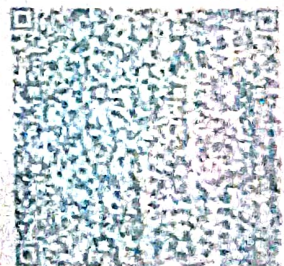
## CERTIFICATE OF INTERNSHIP

This is to certify that Sulaim Ahmed whose USN is 1MV21EE057, has completed their Full Stack Web Development Internship organised and handled by Varcons Technologies Pvt. Ltd from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The period to whom this certificate is addressed to has worked on a project titled Template for Interactive Music Playlist Generator Site. This project was aimed at creating fully-fledged functional web template(s) for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a well-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**THRISHA R**

**1MV21EE060**

Under the Guidance of

**Mrs. BINDIYA TYAGI**

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

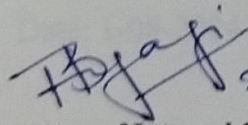
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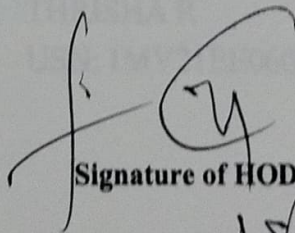
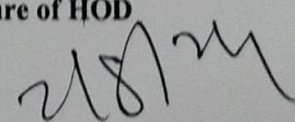
## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the INTERNSHIP entitled “FULL STACK WEB DEVELOPMENT” is carried out by **Ms. Thrisha R** of **USN 1MV21EE060**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Internal Guide

  
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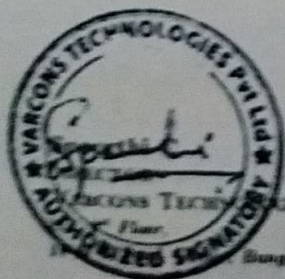
### CERTIFICATE OF INTERNSHIP

This is to certify that Thrisha R whose USN is 1MV21EE060, has completed their Full Stack Web Development Internship organised and handled by Varcons Technologies Pvt. Ltd from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled Template for Interactive Resume Generator Site. This project was aimed at creating fully-fledged functional web template(s) for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**VIHAN C SINGE**

**1MV21EE063**

Under the Guidance of

**Mrs. BINDIYA TYAGI**

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

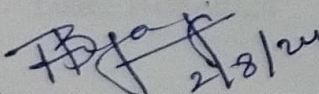
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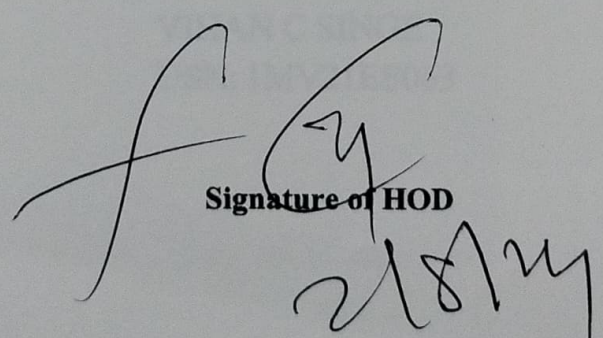
## Department of Electrical & Electronics Engineering



### CERTIFICATE

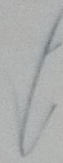
This is to certify that the INTERNSHIP entitled “**FULL STACK WEB DEVELOPMENT**” is carried out by **Mr. Vihan C Singe** of **USN 1MV21EE063**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering, in Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
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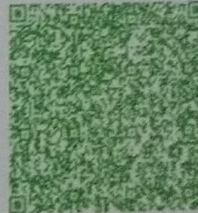
## CERTIFICATE OF INTERNSHIP

This is to certify that Vihan C Singe whose USN is 1MV21EE063, has completed their Full Stack Web Development Internship organised and handled by Varcons Technologies Pvt. Ltd from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Template for Virtual Interior Design showcase Site**. This project was aimed at creating fully-fledged functional **web template(s)** for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**VAIBHAV S**

**1MV21EE062**

Under the Guidance of

**Mrs. BINDYA TYAGI**

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

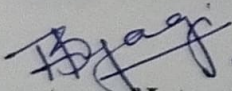
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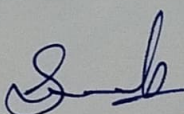
## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the INTERNSHIP entitled “**FULL STACK WEB DEVELOPMENT**” is carried out by **Mr. Vaibhav S** of USN **1MV21EE062**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

 21/8/24  
Signature of Internal Guide

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Signature of HOD



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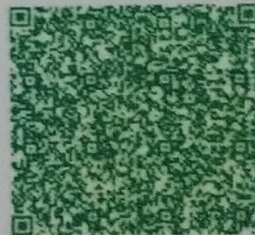
## CERTIFICATE OF INTERNSHIP

This is to certify that Vaibhav S whose USN is 1MV21EE062, has completed their Full Stack Web Development Internship organised and handled by Varcons Technologies Pvt. Ltd from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Template for Interactive Music Playlist Generator Site**. This project was aimed at creating fully-fledged functional **web template(s)** for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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Bangalore-560001

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661

# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**UZMA ALMAS**

**1MV21EE061**

Under the Guidance of

**Mrs. BINDIYA TYAGI**

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the INTERNSHIP entitled “**FULL STACK WEB DEVELOPMENT**” is carried out by **Ms. UZMA ALMAS** of **USN 1MV21EE061**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

*IB Jagi*  
*21/8/24*  
Signature of Internal Guide

Signature of HOD



## CERTIFICATE ISSUED BY VARCONS TECHNOLOGIES



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### CERTIFICATE OF INTERNSHIP

This is to certify that Uzma Almas whose USN is 1MV21EE061, has completed their Full Stack Web Development Internship organised and handled by Varcons Technologies Pvt. Ltd from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled Template for Virtual Interior Design showcase Site. This project was aimed at creating fully-fledged functional web template(s) for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Drama Sangama", Bengaluru-560 018



**ELECTRICAL & ELECTRONICS  
ENGINEERING**

Internship Report

on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS  
USING IOT"**

*Submitted in partial fulfillment for the award of degree (B.Tech)*

Submitted by

**Tejas Mourya L V**

**1MV21EE0159**

Under the Guidance of

**Mrs. Bindhya Tyagi**

Assistant Professor

Department of Electrical and Electronics

Engineering, Sir M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Bengaluru - 562157



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

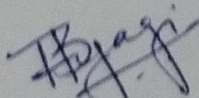
(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru - 562157

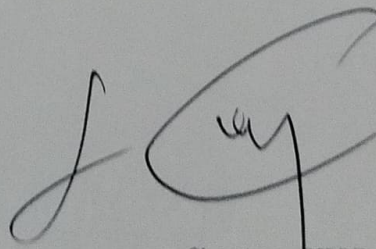
## Department of Electrical & Electronics Engineering



### CERTIFICATE

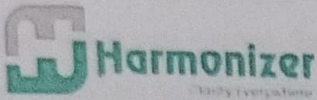
It is to certified that the INTERNSHIP entitled "**METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT**" is carried out by the candidate **Tejas Mourya L. V. - 1MV21EE059**, from **25<sup>th</sup> October to 24<sup>th</sup> November** who is a bonafide student of **6<sup>th</sup> Semester** at **Sir M. Visvesvaraya Institute of Technology**, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD



Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marilingappa

Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Tejas Mourya L V**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
557, 1st Main, 15th Cross, RHCS Layout,  
Srigandhadakavalu, Nagarbhavi,  
BANGALORE - 560 091.



# VISESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnanam Sengama", Belagavi-590 018



Internship Report

on

**"FULL STACK WEB DEVELOPMENT"**

*Submitted in partial fulfillment for the award of the degree (2017-18)*

Submitted by

**SUMITH BABU S**

**IMV21EE058**

Under the Guidance of

**MR. KUMARASWAMY R**

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NBA and NAA)

Off Karmaveerwala International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**2023-2024**



# VISEVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

## "FULL STACK WEB DEVELOPMENT"

*Submitted in partial fulfillment for the award of the degree (21INT68)*

Submitted by

**SUMITH BABU S**

**1MV21EE058**

Under the Guidance of

**MR. KUMARASWAMY R**

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru -562157

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

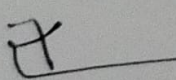
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Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the INTERNSHIP entitled “FULL STACK WEB DEVELOPMENT” is carried out by **Mr. Sumith Babu S** of **USN 1MV21EE058**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Electrical & Electronics** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024 from 27<sup>th</sup> October to 1<sup>st</sup> December. It is certified that all corrections/suggestions indicated have been incorporated in the report. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

 *Dr. P. V. 2/8/24*  
Signature of Internal Guide

Signature of HOD



# CERTIFICATE ISSUED BY VARCONS TECHNOLOGIES



Varcons Technologies Pvt Ltd

Date: 25<sup>th</sup> October, 2023

Name: **Sumith Babu.S**

USN: **1MV21EE058**

Placement ID: **2310FSWDBONE**

Dear Student,

We would like to congratulate you on being selected for the **Full Stack Web Development** Internship position with **Varcons Technologies**, effective Start Date **25<sup>th</sup> October, 2023**. All of us are excited about this opportunity provided to you!

This internship is viewed 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 of **Full Stack Web Development** through hands-on application of the knowledge you learn while you train with the senior developers. You will be bound to follow the rules and regulations of the company during your internship duration.

Again, congratulations and we look forward to working with you!

Sincerely,

Spoorthi H C

**Director**

VARCONS TECHNOLOGIES

213, 2<sup>nd</sup> Floor, 18 M G Road, Ulsoor,

Bangalore-560001



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

## "INDUSTRIAL AUTOMATION"

submitted in partial fulfilment of the requirements for the award of the Degree of

Submitted by

**ADARSH M BALLARY**

**USN: IMV22EE400**

Under the guidance of

**Mrs. Bindiya Tyagi**

Assistant Professor,



DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

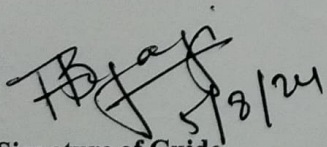
Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

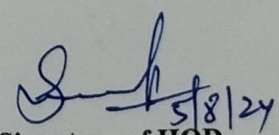
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "**INDUSTRIAL AUTOMATION**" is carried out by the candidate **ADARSH M BALLARY - 1MV22EE400**, from 30th October 2023 to 25th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD





# CERTIFICATE OF APPRECIATION



Date: 25.11.23

This is to certify that Mr. Adarsh M Ballary bearing USN:1MV22EE400 a student of Sir M. Visvesvaraya Institute of Technology, Bangalore has successfully completed 4 weeks internship in the field of "**Industrial Automation**" from 30 October 2023 to 25 November 2023

During his internship period, demonstrated exceptional dedication, enthusiasm, and a strong commitment to learning and contributing to our organization. Their valuable contributions and hard work were truly commendable.

We appreciate Mr. Adarsh M Ballary for his outstanding performance and dedication, which greatly benefited our team and organization as a whole. We wish him continued success in his future endeavors.

*Bharath TS*

MR. BHARATH TS

DIRECTOR  
IROBO AUTOMATION PVT LTD  
BENGALURU





# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report

on

### "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"

Submitted in partial fulfilment for the award of degree (21INT68)

Submitted by

ANIL T D

1MV22EE401

Under the Guidance of

Mr. Bhaskar C

Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

2023-2024



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

It is to certified that the INTERNSHIP entitled “Method to detect, measure, analyse the temperature and vibration of transformers using IIOT” is carried out by the candidate ANIL T D -1MV22EE401, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

*Cert submitted  
for correction*

Signature of HOD



Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marilingappa  
Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Anil T D**, 6th Semester - EEE at Sir M Visvesvaraya  
Institute of Technology Bengaluru, has carried out the Internship conducted by  
Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 15th Cross, RHCB Layout,  
Srigandhadakavatu, Nagarbhavi,  
BANGALORE - 560 081.



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**Internship Report**  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"**

**Submitted in partial fulfillment for the award of degree (21INT68)**

**Submitted by**

**BHARATH KUMAR B K**

**IMV22EE402**

**Under the Guidance of**

**Mr. BHASKAR. C**

**Assistant Professor**



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)**

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**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Bengaluru - 562157

Department of Electrical & Electronics Engineering



## CERTIFICATE

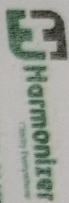
It is to certified that the INTERNSHIP entitled "**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**" is carried out by the candidate **BHARATH KUMAR B K -1MV22EE402**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at **Sir M. Visvesvaraya Institute of Technology**, towards fulfilment of the award of the credits for the academic term **20232024**, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD



# Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

202, Anjanahalli, 2nd floor, 11th Block, Marthiappur  
Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Bharath Kumar B K**, 6th Semester - EEE at Sir M Visweswara Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

A handwritten signature in blue ink, likely belonging to M.R. Srinivas.

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
# 601, 1st floor, 15th Cross, RK3 Layout,  
Srinivasanagar, Bengaluru,  
BANGALORE - 560 091.

A handwritten signature in blue ink, likely belonging to Dr. Suresh H L.

**Dr. Suresh H L**

HOD - EEE

Sir M Visweswara Institute of Technology





**ELECTRICAL & ELECTRONICS  
ENGINEERING**

Internship Report on

**"INNOVATING ENGINEERING LEADERSHIP"**

*Submitted in partial fulfillment for the award of degree (21IINT08)*

Submitted by

**BHARATH R**

**IMV22EE403**

Under the Guidance of

**M. BHASKAR C**

Assistant Professor

Department of Electrical and Electronics Engineering

Sir M. VIT, Bengaluru



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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Off K. Kempgowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

**Department of Electrical & Electronics Engineering****CERTIFICATE**

It is to certified that the INTERNSHIP entitled "INNOVATING ENGINEERING LEADERSHIP" is carried out by the candidate **BHARATH R-1MV22EE403**, from **25<sup>th</sup> October to 24<sup>th</sup> November** who is a bonafide student of **6<sup>th</sup> Semester** at **Sir M. Visvesvaraya Institute of Technology**, towards fulfillment of the award of the credits for the academic term **2023-2024**, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

*[Signature]*  
*Not Submitted for Credit*

Signature of HOD

*[Signature]*  
*2/8/24*



## THE CERTIFICATE PROVIDED BY COMPANY

 **DigiStack Soft Systems Pvt Ltd**  

**DIGISTACK Soft**  **CERTIFICATE**  **STARTCODE**

**TO CERTIFY THAT**

**Name :** 'Bhavath . R

**College :** Sri M Vishweshwara Institute of Technology, Bangalore

**USN NO :** 1MV22EE403

**Has successfully completed the internship program on "Innovative Engineering Leadership" with for a period of 30 days**

**REG ID:** IEL/EC/SC/1012/17 **C.NO:** DIGB /IEL/EC/SC/1012/17

<b>Program Manager</b> 	<b>Granted on</b> <b>25/11/2023</b>	<b>Program Coach</b> 
<small>2nd Floor, Aditi Rudra Arcade, No. 546/R, Vinayaka Layout, Nagarabhogvi-560072</small>	<a href="http://www.digistacksoft.com">www.digistacksoft.com</a>	<a href="mailto:hr@digistacksoft.com">hr@digistacksoft.com</a>



404

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## ELECTRICAL & ELECTRONICS ENGINEERING

Internship Dairy

**"FULL STACK WEB DEVELOPMENT"**

Submitted in partial fulfillment for the award of the degree (21INT68)

Submitted by

**BHAVANA.T.S.**

**1MV22EE404**

Under the Guidance of

**Mr. BHASKAR.C**

Assistant Professor

Dept Electrical & Electronics Engineering.

Sir M. VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru-562157

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "FULL STACK WEB DEVELOPMENT" is carried out by the candidate **BHAVANA.T.S** of **USN 1MV22EE404**, from 25<sup>th</sup> October 2023 to 24<sup>th</sup> to November 2023 who is a bonafide student of 6<sup>th</sup> semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

(not submitted  
for correction)

Signature of HOD



# CERTIFICATE ISSUED BY VARCONS TECHNOLOGIES PVT LTD

Varcons Technologies Pvt Ltd  
Communicate. Collaborate. Create

## CERTIFICATE OF INTERNSHIP

This is to certify that **BHAVANA T.S** whose USN is **1MV22EE404**, has completed their **Full Stack Web Development** Internship organised and handled by **Varcons Technologies Pvt. Ltd** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Template for Virtual Interior Design Showcase Site**. This project was aimed at creating fully-fledged functional **web template(s)** for a client of ours. As part of the project, they designed functional web pages, used databases to collect, store, and sort data, by understanding the design briefs and client specifications that were provided in the project proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate,



211, 2<sup>nd</sup> Floor  
18 M G Road, Ulsoor, Bangalore-560001  
contact@varconstech.com



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report on

"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"

Submitted in partial fulfilment for the award of degree (21INT68)

Submitted by

BHUVANESHWARI.M.  
1MV22EE405

Under the Guidance of

Mr. Bhaskar .C.  
Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

2023-2024



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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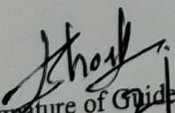
Bengaluru – 562157

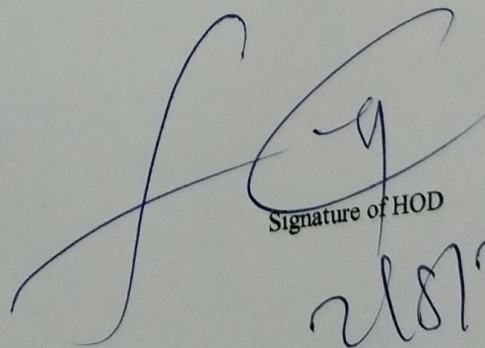
Department of Electrical & Electronics Engineering



## CERTIFICATE

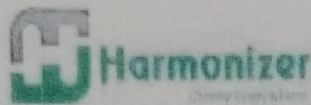
It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate BHUVANESHWARI.M. -1MV22EE405, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at **Sir M. Visvesvaraya Institute of Technology**, towards fulfilment of the award of the credits for the academic term **2023-2024**, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide 21/8/24

  
Signature of HOD 21/8/24



## Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Bhuvaneshwari M**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
E57, 1st Main, 15th Cross, RHCS Layout,  
Srigandhadakavali, Nagarbhavi,  
BANGALORE - 560072

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## ELECTRICAL & ELECTRONICS ENGINEERING

Internship Report

on

**"MACHINE LEARNING USING PYTHON"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**CHAITRA R S**

**1MV22EE406**

Under the Guidance of

**Mr. BHASKAR C**

Assistant Professor

Department of Electrical and Electronics Engineering

Sir M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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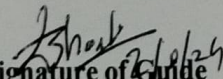
Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the Internship entitled “Machine Learning with Python” is carried out by the **CHAITRA R S**, USN: **1MV22EE406**, from 27<sup>th</sup> October to 1<sup>st</sup> December who is a bonafide student of 6<sup>th</sup> semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment for the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

Signature of HOD





**Compsoft Technologies**

Providing a Complete Suite of IT Solutions


## CERTIFICATE OF INTERNSHIP

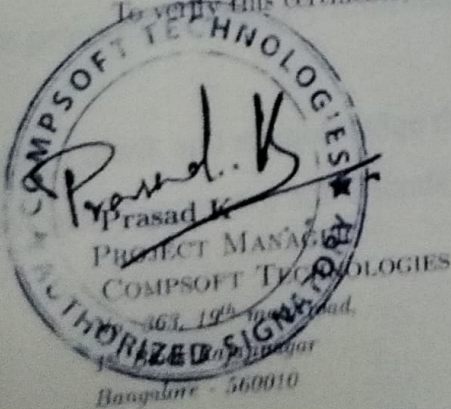
This is to certify that Chaitra R Shirahatti whose USN is 1MV22EE406, has completed their Machine Learning with Python (Research Based) Internship organised and handled by Compsoft Technologies from 27<sup>th</sup> October, 2023 to 1<sup>st</sup> December, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Voice classification using ML**. As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highlighting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.



To verify this certificate, [CLICK HERE](#)  or scan.



[www.compsofttechnologies.com](http://www.compsofttechnologies.com)  
[services@compsofttechnologies.com](mailto:services@compsofttechnologies.com)

This certificate was generated using [CERTIFY.COM](https://certify.com)



407

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**Internship Report**

on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**CHANNABASAVA G**  
**1MV22EE407**

Under the Guidance of

**Mr. BHASKAR C**  
Assistant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,

Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate CHANNABASAVA G -1MV22EE407, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

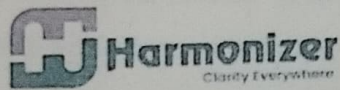
Signature of Guide

*Not submitted  
for correction*

Signature of HOD



## Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marilingappa  
Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Channabasava G**, 6th Semester - EEE at Sir M  
Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted  
by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 15th Cross, RHCS Layout,  
Srigandhadakavalu, Nagarbhavi,  
BANGALORE - 560 091.



# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



## **Internship Report on**

## **"SOCETAL DEVELOPMENT"**

submitted in partial fulfilment of the requirements for the award of the Degree of

Submitted by

**DIVYA T.L.**

**USN: IMV22EE408**

Under the guidance of

**Dr. Siddappaji M.R.**

Assistant Professor,



**DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023 – 2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

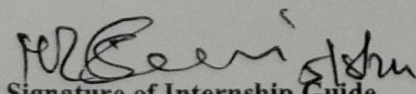
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Bengaluru – 562157

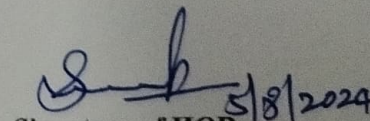
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "SOCIAL DEVELOPMENT " is carried out by the candidate **DIVYA T.L. - 1MV22EE408**, from 02th November 2023 to 30th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Internship Guide  
Dr. Siddappaji M.R.

  
Signature of HOD 5/8/2024



# United Way of Bengaluru

Ground Floor - 1, 8, 3rd Floor,  
Jeevan Bhima Nagar Main Road,  
HAT, III Stage, Bengaluru - 560 075  
Tel: +91-80-4080 6343, +91-80-3328 8363  
Email: info@unbengaluru.org  
Web: www.unbengaluru.org  
ISO 9001:2015 Certified



United Way Bengaluru

Date - 12.12.2023

## INTERNSHIP COMPLETION CERTIFICATION

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Divya TL, Student of Sir MV Vishweshwarayya Bengaluru, has completed the internship requirements at United Way of Bengaluru from 2<sup>nd</sup> Nov, 2023 to 30<sup>th</sup> Nov 2023.

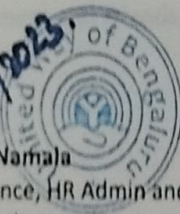
During his time at United way of Bengaluru, Divya has assisted us in our "Born Learning campaign" and "ISDP" programs where she worked on the following tasks and supported the Education projects.

- Part of the Anganwadi worker ECCE training session that happened in Chikkaballpura for a period of two days
- Helped in the documentation of the education vertical with regards to making of progress reports, Inauguration reports.
- Visited beneficiaries in Anekal where UWBe has extended its support for the Divyang children . With a deep conversation with the beneficiaries about the support by UWBe
- Part of the preparation team for training center Inauguration in Chikkaballpura.
- visited the Anganwadi of Basavanagar to understand the working of the anganwadi and the community

We wish "Divya TL the best for his future endeavors.

Certified by:

Venkata Sudhakar Namajja  
Vice President -Finance, HR Admin and CCO  
United Way of Bengaluru





# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## Internship Report on

"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"

Submitted in partial fulfilment for the award of degree (21INT68)

Submitted by

GAGAN.S.  
1MV22EE409

Under the Guidance of

Dr. SIDDAPPAJI M R  
Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

2023-2024



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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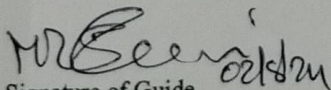
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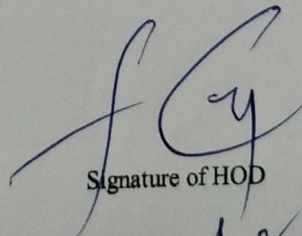
Department of Electrical & Electronics Engineering



## CERTIFICATE

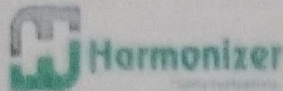
It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate GAGAN.S. -1MV22EE409, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at **Sir M. Visvesvaraya Institute of Technology**, towards fulfilment of the award of the credits for the academic term **2023-2024**, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
21/8/24



## Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

202, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Gagan S**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**

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Srigandhadakavali, Nagarbhavi,  
BANGALORE - 560 091.



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**HANAMANT PUJARI**  
**1MV22EE410**

Under the Guidance of

**DR. SIDDAPPAJI M.R**  
Assistant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
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**2023-2024**



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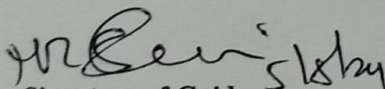
Bengaluru – 562157

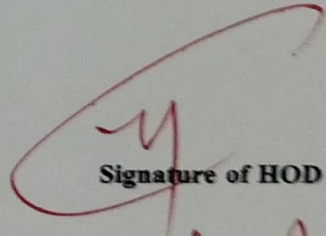
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate HANAMANT PUJARI -1MV22EE410, from 25th October to 24th November who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

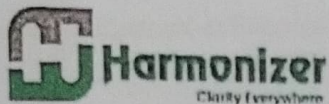
  
Signature of Guide

  
Signature of HOD

2/11/24



Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

292, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Hanamant Pujari**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R. Srinivas**

CTO

Harmonizer India Pvt Ltd

**Dr. Suresh H L**

IIOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
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Srigandhadakavali, Nagarbhavi,  
BANGALORE - 560 091.



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS ENGINEERING**

INTERNSHIP REPORT  
On

**"SOCIAL ACTIVITY ON SERICULTURE"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

HARISH D B  
USN-1MV22EE411

Under the Guidance of

**Dr. Siddappaji M.R**  
Associate Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Bengaluru – 562157



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

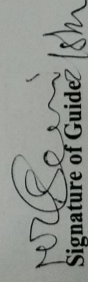
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Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “**SOCIETAL ACTIVITY OF SERICULTURE**” is carried out by the candidate HARISH D B -1MV22EE411, from 26th October to 23th November who is a bonfide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

Signature of HOD





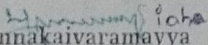
# CERTIFICATE

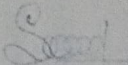


This is to certify that,

Harish D. B (1MV22EE411)

has successfully completed one-month short term Internship under the  
societal domain, from 26-10-2023 to 23-11-2023 in  
Taluk Sericulture Office, Bagepalli.

  
Chinnakavaramayya  
Assistant Director Sericulture  
Bagepalli division, Bagepalli

  
A.N. Suresh babu  
Sericulture demonstrator  
Bagepalli



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
 "Jnana Sangama", Belagavi-590 018



## **ELECTRICAL & ELECTRONICS ENGINEERING**

Internship Dairy on

### **"METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfillment for the award of degree (211NT68)*

Submitted by

**HARSHA G J**

**USN:-1MV22EE412**

Under the Guidance of

**Dr. SIDDAPPAJI M.R**

Assistant Professor

Department of Electrical and Electronics Engineering, Sir M.VIT,  
Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
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 Bengaluru – 562157



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru - 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IOT" is carried out by the candidate **HARSHA G J - IMV22EE412**, from **25<sup>th</sup> October 2023 to 24<sup>th</sup> November 2023**, who is a bonfide student of **3<sup>rd</sup> Year** at **Sir M Visvesvaraya Institute of Technology**, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/ Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi.

It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library.

The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

**H Suresh HL**  
# 557, 1st Main, 15th Cross, RHCS Layout,  
Dr. Siddappa Murthy Nagarbhavi,  
BANGALORE - 560 091.

Signature of HOD

Dr. Suresh HL



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Dairy

On

**"MACHINE LEARNING WITH PYTHON"**

*Submitted in partial fulfillment for the award of degree (21INT68)*

Submitted by

**HARSHAKUMAR B**

**USN: 1MV22EE413**

Under the Guidance of

**DR. SIDDAPPAJI M.R**

Assistant Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF  
TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar, Bengaluru

**2023-2024**



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

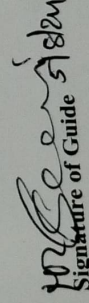
Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

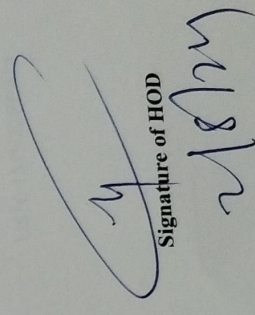
## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certified that the Internship entitled “Machine Learning with Python” is carried out by the **HARSHAKUMAR B**, USN: **IMV22EE413**, from 27<sup>th</sup> October to 1<sup>st</sup> December who is a bonafide student of **6<sup>th</sup> semester** at **Sir M. Visvesvaraya Institute of Technology**, towards fulfillment for the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD





**Compsoft Technologies**  
Providing a Complete Suite of IT Solutions


## CERTIFICATE OF INTERNSHIP

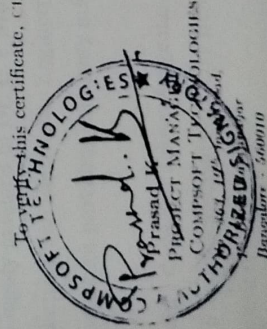
This is to certify that **Harshakumar B** whose USN is **1MV22EE413**, has completed their **Machine Learning with Python (Research Based)** Internship organised and handled by **Compsoft Technologies** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Voice clarification using ML**. As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highlighting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.



To verify this certificate, [CLICK HERE](#)  or scan.



[www.compsofttechnologies.com](http://www.compsofttechnologies.com)

This certificate was generated using **PDF24** v1.10.0



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jhana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS ENGINEERING**

Internship Report

on

**“ SOCIETAL ACTIVITY ON SERICULTURE ”**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**MOHAN PRASAD V**

**1MV22EE424**

Under the Guidance of

**Mr. RAJESH KUMAR .V**

Assistant Professor

Department of Electrical and Electronics  
Engineering, Sir M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

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Bengaluru – 562157



# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

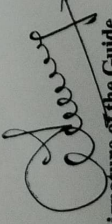
Off International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

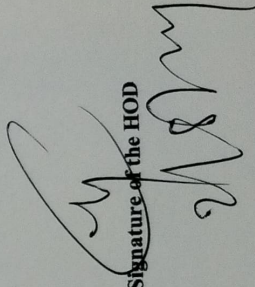
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “SOCIETAL ACTIVITY ON SERICULTURE” is carried out by the candidate **MOHAN PRASAD V - 1MV22EE424**, from **26<sup>th</sup> October 2023** to **23<sup>rd</sup> November 2023**, who is a bonfide student of **3<sup>rd</sup> Year** at **Sir M Visvesvaraya Institute of Technology**, towards fulfillment of the award of the credits for the academic term **2023-2024**, as a part of academic requirement during his/her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi . It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of the Guide

  
Signature of the HOD



Certificate issued by Sericulture Office, Bagepalli.



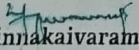
# CERTIFICATE

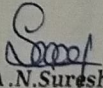


This is to certify that,

**Mohan Prasad V (1MV22EE424)**

has successfully completed one-month short term Internship under the  
**societal domain**, from **26-10-2023** to **23-11-2023** in  
**Taluk Sericulture Office, Bagepalli.**

  
Chinnakaivaramayya  
Assistant Director Sericulture  
Bagepalli division, Bagepalli

 27.11.2023  
A.N.Suresh babu  
Sericulture demonstrator  
Bagepalli



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS ENGINEERING**

**INTERNSHIP REPORT**  
**On**

**"SOCIETAL ACTIVITY ON SERICULTURE"**

*Submitted in partial fulfillment for the award of degree (21INT68)*

Submitted by

JAYAKRISHNA M

1MV22EE414

Under the Guidance of

**Dr. Siddappaji M.R**  
Associate Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Bengaluru – 562157



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Off Kempe Gowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru - 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “**SOCIETAL ACTIVITY OF SERICULTURE**” is carried out by the candidate JAYAKRISHNA M -1MV22EE414, from 26th October to 23th November who is a bonfide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD





# CERTIFICATE



This is to certify that,

**jayakrishna M (1MV22EE414)**

has successfully completed one-month short term Internship under the  
**societal domain**, from **26-10-2023** to **23-11-2023** in  
**Taluk Sericulture Office, Bagepalli.**

*Chinakaivaramayya*  
Assistant Director Sericulture  
Bagepalli division, Bagepalli

*Serial 27-11-2023*  
**A.N.Suresh babu**  
Sericulture demonstrator  
Bagepalli



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS ENGINEERING**

**INTERNSHIP REPORT**

**On**

**“SOCIETAL ACTIVITY ON SERICULTURE”**

*Submitted in partial fulfillment for the award of degree (21INT68)*

Submitted by

KANDURI THARUNI  
USN-1MV22EE415

Under the Guidance of

**Mr. Pradeep Kumar**  
Associate Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

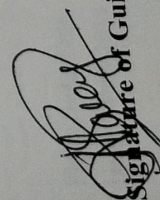
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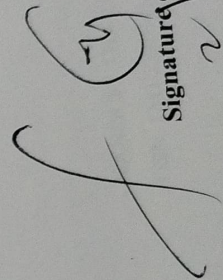
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “**SOCIETAL ACTIVITY OF SERICULTURE**” is carried out by the candidate KANDURI THARUNI -1MV22EE415, from 26th October to 23th November who is a bonfide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD





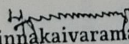
# CERTIFICATE




This is to certify that,

**Kanduri Tharuni (1MV22EE415)**

has successfully completed one-month short term Internship under the  
societal domain, from **26-10-2023** to **23-11-2023** in  
Taluk Sericulture Office, Bagepalli.

  
Chinnakaivaramayya  
Assistant Director Sericulture  
Bagepalli division, Bagepalli

 27.11.2023  
A.N. Suresh babu  
Sericulture demonstrator  
Bagepalli



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**MAHANTHESH K R**  
**1MV22EE416**

Under the Guidance of

**Mr. Pradeep Kumar**  
Assisant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

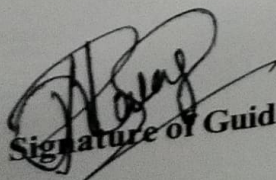
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Bengaluru – 562157

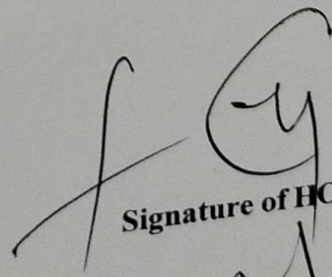
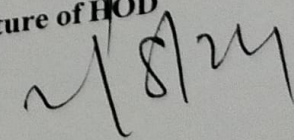
Department of Electrical & Electronics Engineering



## CERTIFICATE

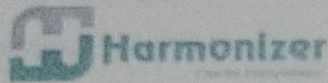
It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**” is carried out by the candidate **MAHANTHESH K R -1MV22EE416**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  




## Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

202, Anjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Mahanthesh K R**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

A handwritten signature in black ink, appearing to read 'M.R. Srinivas'.

**M.R.Srinivas**

CTO

Harmonizer India Pvt Ltd

A handwritten signature in black ink, appearing to read 'Dr. Suresh H L'.

**Dr. Suresh H L**

HOD - EEE

Sir M Visvesvaraya Institute of Technology

**HARMONIZER INDIA PVT. LTD.**  
# 557, 1st Main, 15th Cross, RHCS Layout,  
Srigandhadakavatu, Nagarbhavi,  
BANGALORE - 560 091.



**Sir M.VISVESVARAYA INSTITUTE OF TECHNOLOGY**

"Jnana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS  
ENGINEERING**

Internship Report

on

**"SOCIETAL ACTIVITY ON SERICULTURE"**

**Submitted in partial fulfilment for the award of degree (21INT68)**

Submitted by

**MAHESH M A**

**IMV22EE417**

Under the Guidance of

**Mr. PRADEEP KUMAR**

Assistant Professor

Department of Electrical and Electronics  
Engineering, Sir M.VIT, Bengaluru.



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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Bengaluru – 562157



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(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC and NBA)

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Bengaluru – 562157

## **Department of Electrical & Electronics Engineering**

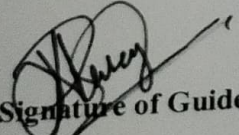


### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “SOCIETAL ACTIVITY ON SERICULTURE” is carried out by the candidate **MAHESH M A -1MV22EE417**, from **24<sup>th</sup> October** to **24<sup>th</sup> November** who is a bonfide student of **6<sup>th</sup> Semester** at **Sir M. Visvesvaraya Institute of Technology**, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi.

It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library.

The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

Signature of HOD



CERTIFICATE ISSUED BY SAMPIGE FOUNDATION



**Sampige Foundation**  
ಸಂಪಿಗೆ ಫೌಂಡೇಶನ್

3295 5th Cross Gayathrinagar Bangalore 560021

ಪ್ರಮಾಣಪತ್ರ | CERTIFICATE

**Mahesh M A**

for completing the 31-day internship program at **Sampige Foundation** between 24th October to 24th November

Kiran Yadav,  
Founder, Sampige Foundation





Internship Report  
on  
"ENERGY CONSERVATION IN VILLAGE SECTORE"  
*Submitted in partial fulfilment for the award of degree (2IINT68)*

Submitted by

**MALLIKARJUNA**  
1MV22EE418

Under the Guidance of

**Mr. Pradeep Kumar**  
Assistant Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-24**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

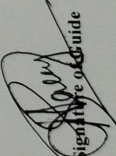
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Bengaluru - 562157

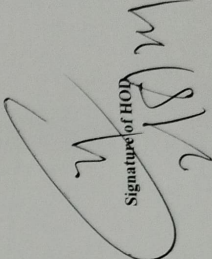
## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled "Energy conservation in village sector" is carried out by the candidate Mallikarjuna -IMV22EE418, from 26th October to 23rd November who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD



# Internship Certificate

## MALLIKARJUNA (1MV22EE418)

Has Successfully completed a weeks short term internship in  
Yagapur Village On the basis of ENERGY CONSERVATION



Shanti Baiyi  
President of Yagapur  
Gram Panchayat  
Yagapur Village, Tal. Yagapur

Basavaraj R. Putari  
Panchayat Development Officer (PDO)  
Gram Panchayat Yagapur





Internship Report  
On  
"SOCIETAL ACTIVITY ON SERICULTURE"

submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by  
**MANJUNATHA M S**  
USN: 1MV22EE419



Under the Guidance of

**Internal Guide**  
Mr. Pradeep Kumar  
Assistant Professor  
EEE Dept., Sir MVIT  
Bengaluru

**External guide**  
Mr. Kiran Yadav  
Founder of Sampige  
Foundation  
Malleshwaram, Bengaluru

**Department of Electrical & Electronics Engineering**  
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
Off Kempegowda International Airport Road, Krishnadevaraya Nagar, Bengaluru – 562157

**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

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## Department of Electrical & Electronics Engineering

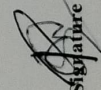


### CERTIFICATE

It is to certified that the INTERNSHIP entitled “SOCIETAL ACTIVITY ON SERICULTURE” is carried out by the candidate MANJUNATHA M S -1MV22EE419, from 24<sup>th</sup> October to 24<sup>th</sup> November who is a bonfide student of 6<sup>th</sup> Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Vivesvaraya Technological University, Belagavi.

It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library.

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Signature of Guide

Signature of HOD



CERTIFICATE ISSUED BY SAMPIGE FOUNDATION



**Sampige Foundation**  
ಸಂಪಿಗೆ ಫೌಂಡೇಷನ್

3295 5th Cross Gayathrinagar Bangalore 560021

ಪ್ರಮಾಣಪತ್ರ | CERTIFICATE

**Manjunatha M S**

for completing the 31-day internship program at Sampige  
Foundation between 24th October to 24th November

Kiran Yadav,  
Founder, Sampige Foundation



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING I10T"**

*Submitted in partial fulfillment for the award of degree (21INT68)*

Submitted by

MANO H P  
1MV22EE420

Under the Guidance of

**Mr. Pradeep Kumar**  
Assistant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

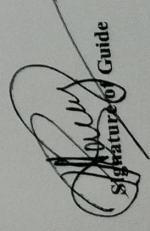
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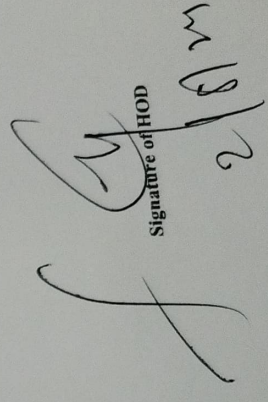
## Department of Electrical & Electronics Engineering



### CERTIFICATE

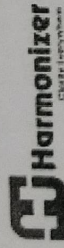
It is to certified that the INTERNSHIP entitled “Method to detect, measure, analyse the temperature and vibration of transformers using IIOT” is carried out by the candidate MANOJ H P -1MV22EE420, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD



## Certificate issued by Harmonizer India PVT LTD



**HARMONIZER INDIA PVT LTD**

232, Anjanadri, 2nd floor, 11th Block, Marlingappa

Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Manoj H P**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**

CTO  
Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
F 507, 1st Main, 15th Cross, RHCS Layout,  
Shanghanahalli, Nagasandra,  
BANGALORE - 560 081.

**Dr. Suresh H L**

HOD - EEE  
Sir M Visvesvaraya Institute of Technology



421  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590 018



**ELECTRICAL & ELECTRONICS ENGINEERING**  
**"METHOD TO DETECT, MEASURE, ANALYZE TEMPERATURE AND**  
**VIBRATION OF TRANSFORMERS USING IOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**MANOJ KUMAR Y**

**1MV22EE421**

Under the Guidance of

**Mr. PRADEEP KUMAR**

Assistant Professor

Department of Electrical and Electronics

Engineering, Sir M.VIT, Bengaluru



**Department of Electrical & Electronics Engineering**

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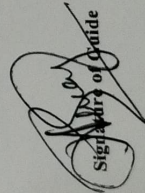
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Off Kempegowda International Airport Road, Krishnadevaraya Nagar,  
Bengaluru – 562157

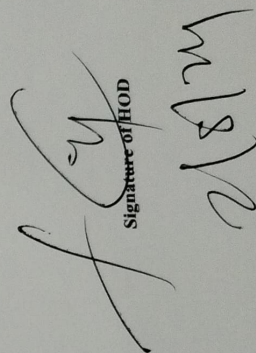
## **Department of Electrical & Electronics Engineering**



### **CERTIFICATE**

It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyses the temperature and vibration of transformers using IIOT**” is carried out by the candidate **MANOJ KUMAR Y-IMV22EE421**, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD



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292, Anjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Manoj Kumar**, 6th Semester - EEE at Sir M Visvesvaraya Institute of Technology Bengaluru, has carried out the Internship conducted by Harmonizer India Pvt Ltd

**Topic: Method to detect, measure, analyze temperature and vibration of Transformers using IIOT**

**Internship Period: 25th October 2023 to 24th November 2023**

He/She was regular and punctual in his/her attendance and his/her conduct was satisfactory during the period

**M.R.Srinivas**  
CTO

Harmonizer India Pvt Ltd

HARMONIZER INDIA PVT. LTD.  
# 557, 1st Main, 15th Cross, RHCS Layout,  
Srigandhadakavalu, Negerohalli,  
BANGALORE - 560 091.

**Dr. Suresh H L**  
HOD - EEE

Sir M Visvesvaraya Institute of Technology



422  
2

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belagavi-590018



Internship Report  
On

**"INNOVATING ENGINEERING LEADERSHIP"**

*Submitted in partial fulfilment for the award of degree (2 IINT68)*

Submitted by

**MOHAMMED AEYTESHAM AHMED**  
**1MV22EE422**

Under the Guidance of

**Mr. V. Rajesh Kumar**  
Assistant Professor



Department of Electrical & Electronics Engineering

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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**2023-2024**



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562157

**Department of Electrical & Electronics Engineering****CERTIFICATE**

It is to certified that the INTERNSHIP entitled "INNOVATING ENGINEERING LEADERSHIP" is carried out by the candidate **MOHAMMED AEYTESHAM AHMED IMV22EE422**, from **25<sup>th</sup> October to 24<sup>th</sup> November** who is a bonfide student of **6<sup>th</sup> Semester** at Sir **M. Visvesvaraya Institute of Technology**, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

*Professor*  
Signature of Guide

*M. V. S. M.*  
Signature of HOD



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**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

Jnana Sangama," Belagavi-590 018



Internship Dairy  
On

**"INNOVATING ENGINEERING LEADERSHIP"**

*submitted in partial fulfilment for the award of the degree (211NT68)*

**BACHELOR OF ENGINEERING IN  
ELECTRICAL & ELECTRONICS ENGINEERING**

Submitted by

**MOHAMMEDRAFIQ SHAIKH**  
USN: 1MV22EE423

Under the Guidance  
Mrs. V. Rajesh Kumar  
Associate Professor  
Department of Electrical and Electronics Engineering  
Sir M. VIT, Bengaluru



**Department of Electrical & Electronics Engineering**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

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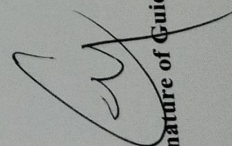


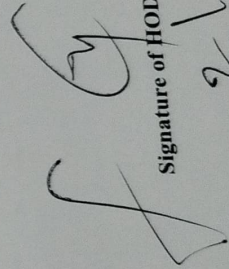
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**Department of Electrical & Electronics Engineering****CERTIFICATE**


It is to certified that the INTERNSHIP entitled “INNOVATING ENGINEERING LEADERSHIP” is carried out by the candidate **MOHAMMEDRAFIQ SHAIKH IMV22EE423**, from **25<sup>th</sup> October to 24<sup>th</sup> November** who is a bonfide student of **6<sup>th</sup> Semester** at **Sir M. Visvesvaraya Institute of Technology**, towards fulfillment of the award of the credits for the academic term **2023-2024**, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
21/8/24



THE CATIFICATE PROVIDED BY COMPANY



**Digistack Soft Systems Pvt Ltd**

A Tech Gateway

★★★★★

**CERTIFICATE**

TO CERTIFY THAT

**Name :** Mr. Mohammed Rafiq Shaikh

**College :** Dr. M. Vishwanathya Institute of Technology, Bangalore

**USN NO :** 1MVA33EEH23

**Has successfully completed the internship program on "Innovative Engineering Leadership" with for a period of 30 days**

**REG ID:** IEL/EC/SC/1103/38

**C.NO:** DIGB / IEL/EC/SC/1103/28

**Program Manager**

*Asif*

**Granted on**

25/11/2023

**Program Coach**

*Asif*

2nd Floor, Aditi Centre Arcade, No. 54/8, Vinayak Layout, Bengaluru-560072

www.digistacksoft.com

hr@digistacksoft.com



STARTCODE





Internship Report  
on

"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

NATARAJA T J  
1MV22EE426

Under the Guidance of

Mr. V Rajesh Kumar  
Assistant Professor



Department of Electrical & Electronics Engineering  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-2024**



# Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

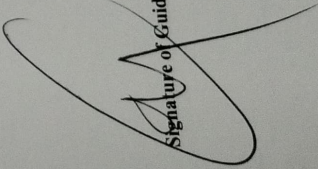
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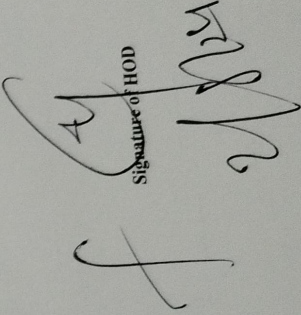
## Department of Electrical & Electronics Engineering



### CERTIFICATE

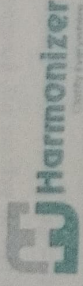
It is to certified that the INTERNSHIP entitled "**Method to detect, measure, analyse the temperature and vibration of transformers using IIOT**" is carried out by the candidate NATARAJA T J -1MV22EE426, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD



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292, Arjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

### CERTIFICATE OF INTERNSHIP

This is to Certify that, **Nataraja T J**, 6th Semester - EEE at Sir M Visvesvaraya  
Institute of Technology Bengaluru, has carried out the Internship conducted by  
Harmonizer India Pvt Ltd

**Topic:** Method to detect, measure, analyze temperature and vibration of  
Transformers using IOT

**Internship Period:** 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

A handwritten signature in black ink, likely belonging to M.R. Srinivas.

**M.R.Srinivas**  
CTO  
Harmonizer India Pvt Ltd

**HARMONIZER INDIA PVT. LTD.**  
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Srigandhadakavali, Nagarbhavi,  
BANGALORE - 560 091.

A handwritten signature in black ink, likely belonging to Dr. Suresh H L.

**Dr. Suresh H L**  
HOD - EEE

Sir M Visvesvaraya Institute of Technology



427

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
"Jnana Sangama", Belagavi-590 018



Internship Report  
on

**"METHOD TO DETECT, MEASURE, ANALYZE  
TEMPERATURE AND VIBRATION OF TRANSFORMERS USING IIOT"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**NAVEEN KUMAR N**  
IMV22EE427

Under the Guidance of

**Mr. V. RAJESH KUMAR**  
Assisant Professor



**Department of Electrical & Electronics Engineering**  
**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
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**2023-2024**



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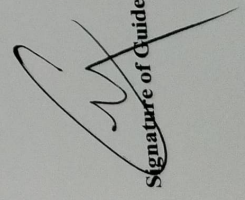
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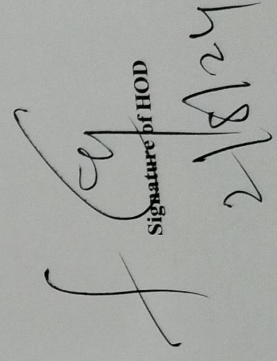
## Department of Electrical & Electronics Engineering



### CERTIFICATE

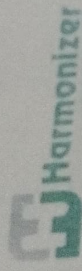
It is to certified that the INTERNSHIP entitled “**Method to detect, measure, analyse the temperature and vibration of transformers using IOT**” is carried out by the candidate NAVEEN KUMAR N -IMV22EE427, from 25th October 2023 to 24th November 2023 who is a bonafide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
Signature of Guide

  
Signature of HOD  
2/8/24



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292, Anjanadri, 2nd floor, 11th Block, Marlingappa  
Extension, Bengaluru, Karnataka 560072

## CERTIFICATE OF INTERNSHIP

This is to Certify that, **Naveen Kumar N** 6th Semester - EE at Sir M  
Visweshwaraiah Institute of Technology, Bengaluru, has carried out the Internship conducted  
by Harmonizer India Pvt Ltd

Topic: Method to detect, measure, analyze temperature and vibration of  
Transformers using ITOI

Internship Period: 25th October 2023 to 24th November 2023

He/She was regular and punctual in his/her attendance and his/her conduct was  
satisfactory during the period

A handwritten signature in black ink, likely belonging to M.R. Srinivas.

**M.R.Srinivas**  
CTO

Harmonizer India Pvt Ltd  
**HARMONIZER INDIA PVT. LTD.**  
557, 1st Main, 15th Cross, R-153 Layout,  
Srigandhakavali, Nagabhavi,  
BANGALORE - 567 004

**Dr. Suresh H L**  
HOD - EEE

Sir M Visweshwaraiah Institute of Technology



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

“Jnana Sangama”, Belagavi-590 018



**ELECTRICAL & ELECTRONICS ENGINEERING**

**INTERNSHIP REPORT**

**On**

**“SOCIETAL ACTIVITY ON SERICULTURE”**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

NAVYA N

1MV22EE428

Under the Guidance of

**Mr. Rajesh Kumar V**  
Associate Professor



**Department of Electrical & Electronics Engineering**

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)  
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Bengaluru – 562157



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Bengaluru – 562157

## Department of Electrical & Electronics Engineering



### CERTIFICATE

It is to certified that the INTERNSHIP entitled “**SOCIETAL ACTIVITY OF SERICULTURE**” is carried out by the candidate NAVYA N -1MV22EE428, from 26th October to 23th November who is a bonfide student of 6th Semester at Sir M. Visvesvaraya Institute of Technology, towards fulfillment of the award of the credits for the academic term 2023-2024, as a part of academic requirement during his/her Bachelor of Engineering degree from the Visvesvaraya Technological University, Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

Signature of Guide

Signature of HOD



CERTIFICATE ISSUED BY SOCIETAL ACTIVITY ON SERICULTURE



# CERTIFICATE



This is to certify that,

**Navya. N (1MV22EE428 )**

has successfully completed one-month short term Internship under the  
societal domain, from 26-10-2023 to 23-11-2023 in  
Taluk Sericulture Office, Bagepalli.

Chinnakaivaramayya  
Assistant Director Sericulture  
Bagepalli division, Bagepalli

*Signed* 22.11.2023  
A.N.Suresh babu  
Sericulture demonstrator  
Bagepalli



# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



## ELECTRICAL & ELECTRONICS ENGINEERING

Internship dairy

on

**"MACHINE LEARNING USING PYTHON"**

*Submitted in partial fulfilment for the award of degree (21INT68)*

Submitted by

**PAVAN S**

**1MV22EE429**

Under the Guidance of

**Mr. RAJESH KUMAR**

Assistant Professor

Department of Electrical and Electronics Engineering

Sir M.VIT, Bengaluru.



Department of Electrical & Electronics Engineering

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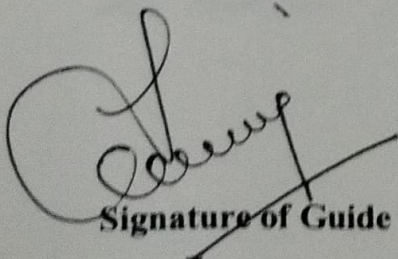
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## Department of Electrical & Electronics Engineering



### CERTIFICATE

This is to certify that the Internship entitled “**Machine Learning with Python**” is carried out by the **PAVAN S, USN: 1MV22EE429**, from 27<sup>th</sup> October to 1<sup>st</sup> December who is a bonafide student of **6<sup>th</sup> semester** at **Sir M. Visvesvaraya Institute of Technology**, towards fulfillment for the award of the credits for the academic term 2023-2024, as a part of academic requirement during his Bachelor of Engineering degree from the Visvesvaraya Technological University Belagavi. It is certified that all corrections and suggestions indicated for internal assessment have been duly incorporated in the report and deposited in the department library. The internship has been approved as it satisfies the academic requirements in respect of internship work prescribed for the course of Bachelor of Engineering in Electrical and Electronics Engineering.

  
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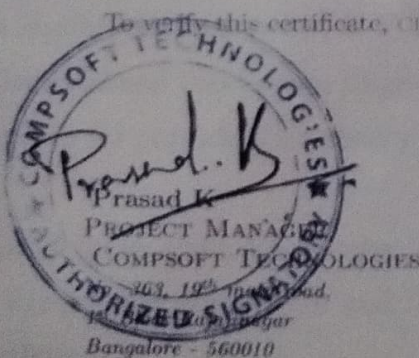
## CERTIFICATE OF INTERNSHIP

This is to certify that **Pavan S** whose USN is **1mv22ee429**, has completed their **Machine Learning with Python (Research Based)** Internship organised and handled by **Compsoft Technologies** from **27<sup>th</sup> October, 2023** to **1<sup>st</sup> December, 2023**.

The person to whom this certificate is addressed to has worked on a project titled **Voice classification using ML**. As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highlighting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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