NEW HORIZON
COLLEGE OF ENGINEERING
New Horizon Knowledge Park, Ring Road, Marathalli
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INTERNSHIP (A Y:2025-2026)

NEW HORIZON
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
INTERNSHIP DETAILS (A Y:2025-2026)

S.NO	USN	STUDENT NAME	Company Name
1	1NH22EE001	AASHISH THOMAS OOMMEN	AICTE IDEA Lab, New Horizon College of Engineering
2	1NH22EE002	ABHISHEK A GOWDA	Akshayakalpa organic
3	1NH22EE003	ABHISHEK J	Mavericks Solar Energy Solutions Pvt. Ltd 44, F/F, GALI NO-1, VILLAGE KHICHRI PUR, NEAR KENDRIYA VIDYALAYA GATE NO- 2, East Delhi
4	1NH22EE004	ABHISHEK RAJKUMAR SAKULE	Mavericks, Regd. 44, F/F, GALI NO-1, VILLAGE KHICHRI PUR, NEAR KENDRIYA VIDYALAYA 2, East Delhi
5	1NH22EE005	ACHUTHA E.B	AICTE IDEA Lab, New Horizon College of Engineering
6	1NH22EE006	ADITYA MENON	VTU Portal SEC
7	1NH22EE007	ADITYA NARAYAN SASMAL	AICTE IDEA Lab, New Horizon College of Engineering, Outer Ring Road, Near Marathalli, Kaverappa Layout, Kadubeesanahalli, Bengaluru, Karnataka, 560103
8	1NH22EE008	ADITYA PRASAD	Elevate Labs, BTG, Brookefield
9	1NH22EE009	AISHWARYA C S	Torishima Pumps(India)pvt ltd
10	1NH22EE010	AKSHAT CHOPRA	Edutainer (PAT Technologies Pvt. Ltd.), Office: #525, Tower B-3 Spaze i-Tech Park, Sohna Road Gurgaon, Haryana, 122002
11	1NH22EE015	ASHITHA SUBBAIAH	Plivo Inc - Campus 32, Plivo, IndiQube, Eco, RMZ Ecoworld Rd, Adarsh Palm Retreat, Bellandur, Bengaluru, Karnataka 560103
12	1NH22EE016	MITHUN	VTU Portal SEC
13	1NH22EE017	BARU TEJESH	KPTCL, 400 kV Hoody Substation, Bengaluru
14	1NH22EE018	BASAVAPRABHU KUMBAR	New Horizon College, Bangalore
15	1NH22EE019	BHARATH KUMAR	"Unlox Academy" Hustle Hub, 17th Cross Road, Sector 4, HSR Layout, Bengaluru, Karnataka 560102
16	1NH22EE020	BHAVANA C	Gremot Mobility Pvt Ltd - V1-C, NGEF Ancilliary Estate, Graphite India Main Rd, Mahadevapura, Bengaluru, Karnataka 560048
17	1NH22EE023	BHUVAN GOWDA S S	KodNest Technologies Pvt Ltd, CPR Tower, 4th & 5th Floor, Above Reliance Fresh, Stage 2, BTM Layout, Bengaluru, Karnataka
18	1NH22EE024	BHUVAN R	AICTE idea lab New horizon college of engineering 0

19	1NH22EE025	CHANDINI N	Torishima (India) Pvt ltd
20	1NH22EE026	CHARAN KORA	New Horizon College of Engineering (NHCE) is New Horizon College of Engineering, Ring Road, Kadubeesanahalli, Bellandur Post, Near Marathahalli, Bengaluru - 560103, Karnataka, Indi
21	1NH22EE028	CHAUDHARY MANAS RAY	INDIAN INSTITUTE OF SCIENCE, CV Raman Rd, Bengaluru, Karnataka 560012
22	1NH22EE029	CHETHAN S	KPTCL, 400 kV Hoody Substation, Bengaluru
23	1NH22EE032	DARSHAN D GOWDA	BISAFE (BHAIRAVI INDUSTRIALSAFETY SECURITY AND FIRE ENGINEERING) Devanahalli, Bangalore
24	1NH22EE033	DEEPTHI R	HAL banglore
25	1NH22EE034	DEEPU T	UX Design, Game Design Intern, 1st Floor, 110, 7th Cross Rd, Dollar Layout, BTM 2nd Stage, Bilekahalli, Bengaluru, Karnataka 560076
26	1NH22EE035	DHANANJAYA H	MINDSET IT SOLUTIONS & CONSULTANTS , #2/E, 2nd Floor, 14th Main Road, Vijayanagar, Bangalore â€“ 40, Opp. Vijayanagar Metro Station Next To Police station, Mob: +91 9844628808, +91 7676851841, www.mindsetit.in
27	1NH22EE036	DHANESH	Hindustan Aeronautics Limited (HAL)HAL, Bengaluru â€“ 560 037
28	1NH22EE040	DHANYA SHREE S	Siemens Ltd.Rga Tech Park Utc Eco Energy,carmelaram,Hadosiddapura,chikkannalli,Bengaluru,Karnataka 560035
29	1NH22EE041	DINAKARA K L	Karnataka Power Transmission Corporation Limited, T Gollahalli, Kolar.
30	1NH22EE043	DIVYASREE	Hindusthan Aeronautical limited
31	1NH22EE045	G R YASHWANTH	Siemens Technology and services pvt ltd ,Chennai
32	1NH22EE047	GOKUL M	BISAFE (BHAIRAVI INDUSTRIALSAFETY SECURITY AND FIRE ENGINEERING),Devanahalli, Bangalore
33	1NH22EE048	GOWRI MANOJKUMAR	New Horizon College of Engineering
34	1NH22EE049	GOWTHAM RAJ M S	KPTCL Substation Kolar
35	1NH22EE050	GOWTHAMI K	MindMatrix, #651, Kiran Arcade, 4th Floor, 13th Cross, 27th Main Road, 1st Sector, HSR Layout, Bangalore â€“ 560102
36	1NH22EE052	INDRA VARMA	New Horizon College of Engineering
37	1NH22EE053	IQRA BASHIR	KodNest Technologies Pvt Ltd, CPR Tower, 4th & 5th Floor, Above Reliance Fresh, Stage 2, BTM Layout, Bengaluru, Karnataka
38	1NH22EE055	K JAGAN	NISSI Engineering Solution Pvt.Ltd, 14, Shanthi St, Hospital Rd, Cholapuram, Ambattur, Chennai, Tamil Nadu 600062
39	1NH22EE056	KALPANA CHAWLA S	SURE Trust (ProEd)

40	1NH22EE057	KAUSHAR AMIN	EDUTAINER : 1st Floor, 110, 7th Cross Rd, Dollar Layout, BTM 2nd Stage, Bilekahalli, Bengaluru, Karnataka 560076
41	1NH22EE058	KAVIN N	SolarSquare, IndiQube TownHub, 100 Feet Rd, Indira Nagar 1st Stage, H Colony, Indiranagar, Bengaluru, Karnataka 560038
42	1NH22EE060	KEERTHANA R	KodNest Technologies Pvt Ltd, CPR Tower, 4th & 5th Floor, Above Reliance Fresh, Stage 2, BTM Layout, Bengaluru, Karnataka
43	1NH22EE061	KODE KAVYASRI	IBM, embassy golf links,domlur
44	1NH22EE062	KRUTHIKA M	Karnataka soaps and detergents limited , yeshwantpur
45	1NH22EE063	LALITH NARAYAN	Temenos India Pvt Ltd - IBC Knowledge Park, Block C & D, 10th & 11th Floor No. 4/1, Bannerghatta Road, Near Dairy Circle Bengaluru, Karnataka â€“ 560029, India
46	1NH22EE064	MAHENDRA KUMAR S	Mayur Yarn And Thread Private Limited # 1, 1st 'B' Cross, Lal Bagh Main Rd, Doddamavalli, Sudhama Nagar, Bengaluru, Karnataka 560027
47	1NH22EE065	MEENAKSHI J CHODAVARAPU	HAL Mission & Combat System Research & Design Centre (MCSRDC)Â is located atÂ Design Complex, HAL, Marathahalli Post, Bengaluru - 560037
48	1NH22EE067	MOHAN KUMAR M	Sun Mobility Pvt Ltd 25, 1st Cross, 2nd Main Rd, Doddanakundi Industrial Area 2, Phase 1, Doddanekkundi, Bengaluru, Karnataka 560048
49	1NH22EE069	MUDAVATH VAMSIKRISHNA NAIK	APSPDCL,Puttaparthi,Yenumulapalli,Andhra Pradesh 515134
50	1NH22EE070	MUHAMMED SINAN K V	Netradyne - HM Tech Park, Wing-2, Unit no-102, S.Y No. 12/1 & 13/1A, Pattandur Agrahara Village, K.R. Puram Hobli, Whitefield, Bengaluru, Karnataka 560066, India
51	1NH22EE071	NAYAN M	Elevate labs , BTG, Brookefield, Bengaluru, Karnataka 560037
52	1NH22EE072	NISHANT GUPTA	Mavericks Solar Energy Solutions Pvt Ltd. Kalyan Puri, Delhi, 110091
53	1NH22EE073	NOOR ZOYA	AICTE Idea Lab,New Horizon college of engineering
54	1NH22EE077	PRAJWAL B	SolarSquare Energy, Ground Floor, IndiQube TownHub CoWorking Space, 100 Feet Rd, Indira Nagar 1st Stage, H Colony, Indiranagar, Bengaluru, Karnataka 560038
55	1NH22EE078	PRAJWAL MR	HAL
56	1NH22EE080	PRAVEENKUMAR	Hindustan Aeronautics Limited, Bengaluru
57	1NH22EE081	PREETHAM RAJ S	SolarSquare Energy, Ground Floor, IndiQube TownHub CoWorking Space, 100 Feet Rd, Indira Nagar 1st Stage, H Colony, Indiranagar, Bengaluru, Karnataka 560038
58	1NH22EE082	PREETY GUPTA	iStop

59	1NH22EE083	PURVIK J H	Akshakalpa Organic Foods Pvt.Ltd Tiptur-572201
60	1NH22EE084	R SHREYAS	Moonrider Pvt. Ltd. Plot 67F, Bommasandra Industrial Area, Bommasandra, Karnataka 560099
61	1NH22EE085	R GAGANA	NISSI Engineering Solution Pvt.Ltd, 14, Shanthi St, Hospital Rd, Cholapuram, Ambattur, Chennai, Tamil Nadu 600062
62	1NH22EE086	RAGHAVENI S	One Stop Tech,1018, Sector 7, HSR Layout , Bengaluru, Karnataka, 560102
63	1NH22EE088	RAJ SINGH	Gilbarco Veeder Root,Whitefield
64	1NH22EE090	RANI GUPTA R	Movidu Technology Pvt Ltd
65	1NH22EE091	RENUKA R RAMAKRISHNAN	Plivo -Campus 32, Plivo, IndiQube, Eco, RMZ Ecoworld Rd, Adarsh Palm Retreat, Bellandur, Bengaluru
66	1NH22EE092	RESHMA RAJ KR	Idea Lab
67	1NH22EE093	ROSHAN P	SolarSquare Energy, Ground Floor, IndiQube TownHub CoWorking Space, 100 Feet Rd, Indira Nagar 1st Stage, H Colony, Indiranagar, Bengaluru, Karnataka 560038
68	1NH22EE094	S BINDUSHREE	NA
69	1NH22EE095	SAHANA PATTAR	Embedded Systems and IoT(SURE proEd Family), Tirupati
70	1NH22EE096	SAHANA S	Sure pr
71	1NH22EE097	SAKSHI S M	AICTE IDEA Lab, New Horizon College of Engineering
72	1NH22EE099	SHATAKSHI PATTANAIK	Temenos India Pvt Lt, IBC Knowledge Park, Block D 10th & 11th Floor No. 4/1, Bannergatta Road, Near Dairy Circle, Bangalore 560 029 India
73	1NH22EE100	SHIVAM PANDEY	One Stop Tech,1018, Sector 7, HSR Layout , Bengaluru, Karnataka, 560102
74	1NH22EE101	SHREYA N	Ediglobe Online Services Private Limited, Singsandra
75	1NH22EE104	SHREYAS R SRINIVAS	AICTE IDEA Lab, NHCE campus
76	1NH22EE105	SHUBHASHREE MM	TCS VLSI INTERNSHIP
77	1NH22EE107	SUDEEP J	Elevate labs BTG, Brookefield, Bengaluru, Karnataka 560037
78	1NH22EE108	SUDEEP KUMAR DUTTA	AICTE IDEA Lab, NHCE campus
79	1NH22EE109	SUJAN KUMAR V	Elevate labs, BTG, Brookefield, Bengaluru, Karnataka 560037
80	1NH22EE112	SUPRITHA.K	Mindmatrix
81	1NH22EE114	SUSHIL	New Horizon College of Engineering,Bengaluru
82	1NH22EE115	SYED ROSHAN A	Capgemini Technology Services India Limited, No: 158-162P & 165-170P, EPIP Phase II, Whitefield, Bengaluru - 560066, Karnataka
83	1NH22EE116	T PURUSHOTHAM	HAL
84	1NH22EE117	TEENU YASHAS R	MAYUR YARN & THREAD PVT. LTD,Sudham Nagar, Near Telungu Chettiar Kalyana Mantapam, Bangalore-27

85	1NH22EE118	TEJAS S	BISAFE , Devanahalli, Banglore
86	1NH22EE119	THAVANYA MARIA SINGH	MERCK KGaA (Sigma Aldrich Chemicals PVT LTD)
87	1NH22EE120	TIROTAMAN K	Gray Mobility Pvt Ltd
88	1NH22EE121	V BHARGAV	Hindustan Aeronautics limited, HAL
89	1NH22EE122	VEERESH DODDAMANI	NHCE Idea Lab Intern, kodnest technologies
90	1NH22EE125	YASHASWINI B S	Nokia, Manyatha L5, Bengaluru
91	1NH22EE127	Y SAI PAVAN	VTU Portal SEC
92	1NH23EE400	ADARSH V	MindMatrix MindMatrix, #651, Kiran Arcade, 4th Floor, 13th Cross, 27th Main Road, 1st Sector, HSR Layout, Bangalore â€“ 560102
93	1NH23EE401	AKSHAY BM	RH MULTISYSTEMS GARUDACHARPALYA
94	1NH23EE402	ANIKET MIRJI	LCA TEJAS DIVISION
95	1NH23EE403	CHARAN D S	AICTE idea lab, New horizon college of engineering
96	1NH23EE406	PAVAN KUMAR M	MindMatrix, #651, Kiran Arcade, 4th Floor, 13th Cross, 27th Main Road, 1st Sector, HSR Layout, Bangalore â€“ 560102
97	1NH23EE407	PUNITH KUMAR D	MindMatrix, #651, Kiran Arcade, 4th Floor, 13th Cross, 27th Main Road, 1st Sector, HSR Layout, Bangalore â€“ 560102
98	1NH23EE408	R KIRAN KUMAR	Siemens Technology and services pvt ltd ,Chennai
99	1NH23EE409	THIPPESWAMY S	Tescom Electronics , Electronic City phase 2
100	1NH23EE410	YATHISHKUMARA D R	AICTE IDEA LAB, NHCE Bangalore

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INTERNSHIP REPORT (22EEE83)

ON

IoT-Based Smart Waste Management System

By

Aashish Thomas Oommen

1NH22EE001

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

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Internship Completion Certificate

It is certified that Mr. Aashish Thomas Oommen, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE001 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr. R Mohan Das

Designation: Associate Professor, Dept of EEE

Email: mohandass31new@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**IoT-Based Project Development**" was carried out by **Mr. Aashish Thomas Oommen (1NH22EE001),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. R Mohan Das	Head of the Department Department of Electrical and Electronics Engineering New Horizon College of Engineering Ring Road, Kadubisanahalli, Bellandur Post. Bangalore-560103, Karnataka, India **Dr. Sujitha S**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR S	12/12/25
2 DR. S. KANISHAN	12/12/25

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Aashish Thomas Oommen
1NH22EE001
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Aashish Thomas Oommen,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

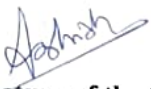
We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
New Horizon College of Engineering
Bengaluru

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. R Mohan Das and under the supervision of Internship Supervisor (Industry) Dr. Sujin Jose submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025- 2026.



Signature of the Student

Student Name: Aashish Thomas Oommen

USN: 1NH22EE001

NEW HORIZON
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INTERNSHIP REPORT (22EEE83)

ON

MAINTENANCE AND SUPPORT INTERN

By

ABHISHEK A GOWDA

1NH22EE002

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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Internship Completion Certificate

It is certified that Mr. Abhishek A Gowda, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE002 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 30/4/2026 in the Akshayakalpa farms and foods Pvt ltd.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 86 marks out of 100 marks is awarded.

Date 7/5/2026

Signature of Mentor

Name of Mentor: Pooja Jose

Designation: Assistant Professor

Official Email: poojaj.nhce@newhorizonindia.edu

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"MAINTENANCE AND SUPPORT INTERN"** was carried out by **Mr. Abhishek A Gowda (1NH22EE002),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Prof. Pooja Jose	**Dr. S. Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. Dr. S. KANITHAN	12/05

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Akshayakalpa
Organic

Date:1st January 2026

To,
Abhishek A Gowda,
S/O S Ashoka, Kabbali, Channarayapatana,
Hassan, Karnataka-573141
Email: abhiabhishekagowda@gmail.com
Contact: 8050763889

Dear Abhishek A Gowda,

I am pleased to inform you that internship offer for the project titled **"Maintenance Intern"** at **Kodihally** on a monthly stipend **Rs. 8,000.** Your first day of joining will be **12th January 2026** . In addition to your duties outlined in the interview, you will report to **Premloyd Miranda.**

As an intern, you are not the company's employee and therefore, will not receive health and accidental Insurance benefits. You understand that participating in the internship program is not an offer of employment.

During your internship, you will have access to the company's clients and confidential information. You agree that you will keep all this information and client information strictly confidential and will not share it with anyone outside the company. You will not use it for your own benefits and on completion of the internship; you will return documents, equipment, and all property of the company.

We believe it is our responsibility to offer you the opportunity to realize your potential and it is up to you to make use of it. Congratulations and welcome to Akshayakalpa

Congratulations on the Internship.

Best Regards,

AKSHAYAKALPA FARMS & FOODS PVT. LTD. TIPTUR

Signature of the HR Representative

Name — Nethra Mohan
Designation — Head People Experience & Administration

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DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mr. Abhishek A Gowda and under the supervision of Internship Supervisor (Industry) Mr. Premloyd Miranda submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Abhishek

Signature of the Student

Student Name: Abhishek A Gowda

USN: 1NH22EE002

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INTERNSHIP REPORT (22EEE83)

ON

Efficiency Monitoring of Solar Photovoltaic Systems Using VLSI

By

Abhishek J

1NH22EE003

Department of Electrical and Electronics Engineering

AY: 2025-2026

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NEW HORIZON COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Abhishek J Department of Electrical and Electronics Engineering bearing USN: 1NH22EE003 of New Horizon College of Engineering carried out his internship from 15/01/26 to 30/04/26 in the Mavericks Solar Solutions Pvt Ltd On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 89 marks out of 100 marks is awarded.

Date: 09/5/26

Signature of Mentor

Name of Mentor: Dr. Karthika M

Designation: Associate professor

Official Email: karthikaganesh16@gmail.com

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"Efficiency Monitoring of Solar photovoltaic system using VLSI"** was carried out by **Mr. Abhishek J (1NH22EE003),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering**of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. Karthika M	**Dr. S. Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof. and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. DR. S. KANITHAN	

Company Certificate

MAVERICKS
SOLAR ENERGY SOLUTIONS PVT. LTD.

Certificates No.

Ref. No. M0050 **Date.12.01.2026**

To Whom It May Concern

Dear **Abhishek J**,
We are pleased to offer you the position of Intern Analyst at Mavericks Solar Energy Solutions Pvt. Ltd. under the Renewable Energy System Department.The internship will be conducted in Hybrid mode for a duration starting from 15 January 2026 to 30 April 2026.

This internship is intended to provide structured learning and practical exposure to analytical practices applied in renewable energy systems. You are expected to actively participate in assigned tasks, demonstrate professional conduct, and comply with all organizational guidelines.
You will be paid a stipend of ₹5,000 (Rupees Five Thousand only) per month for the duration of the internship, subject to satisfactory performance.
Please note that this offer is for an internship engagement only and does not constitute an offer of employment. An Internship Completion Certificate will be issued only upon successful completion of the internship period and assigned responsibilities.
We look forward to your valuable contribution and wish you a rewarding learning experience with Mavericks Solar Energy Solutions Pvt. Ltd.

You're Sincerely,
For Mavericks Solar Energy Solutions Pvt. Ltd.

Arbind Kumar (Director)

Regd. 44, F/F, GALI NO-1, VILLAGE KHICHRI PUR, NEAR KENDRIYA VIDYALAYA GATE NO-2, East Delhi, 110091 Tel: 011-2999-6848 | Ph: 954-067-4848 | GST: 07AAKCM0605L1ZG
www.mavericksenergy.in | mavericksps158gmail.com

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DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Karthika M and under the supervision of Internship Supervisor (Industry) Mr. Arbind Kumar as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Abhishek J

Signature of the Student

Student Name: Abhishek J

USN: 1NH22EE003

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COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

Efficiency Monitoring of Solar Photovoltaic Systems Using VLSI

By

Abhishek Rajkumar Sakule

1NH22EE004

Department of Electrical and Electronics Engineering

AY: 2025-2026

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COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Abhishek RS Department of Electrical and Electronics Engineering bearing USN: 1NH22EE004 of New Horizon College of Engineering carried out his internship from 15/01/26 to 30/04/26 in the Mavericks Solar Solutions Pvt Ltd On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 89 marks out of 100 marks is awarded.

Date 8/5/2026

Signature of Mentor

Name of Mentor: Prof – Pooja Jose

Designation: Assistant professor

Official Email: poojaj.nhce@newhorizonindia.edu

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COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**Efficiency Monitoring of Solar photovoltaic system using VLSI**"was carried out by **Mr. Abhishek RS (1NH22EE004),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering**of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Prof. Pooja Jose	**Dr. S. Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR S	
2 Dr S. KANISHKAN	

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Company Certificate

MAVERICKS
SOLAR ENERGY SOLUTIONS PVT. LTD.

Certificates No.
ISO No: 20IQ8N51 | Startup India: DIPP82966
IEC Number: AAKCM0605L | GNAAB/RXQVW90340

Ref. No. M0051 **Date.12.01.2026**

To Whom It May Concern

Dear **Ablishek Rajkumar Sakule,**
We are pleased to offer you the position of Intern Analyst at Mavericks Solar Energy Solutions Pvt. Ltd. under the Renewable Energy System Department.The internship will be conducted in Hybrid mode for a duration starting from 15 January 2026 to 30 April 2026.

This internship is intended to provide structured learning and practical exposure to analytical practices applied in renewable energy systems. You are expected to actively participate in assigned tasks, demonstrate professional conduct, and comply with all organizational guidelines.
You will be paid a stipend of ₹5,000 (Rupees Five Thousand only) per month for the duration of the internship, subject to satisfactory performance.
Please note that this offer is for an internship engagement only and does not constitute an offer of employment. An Internship Completion Certificate will be issued only upon successful completion of the internship period and assigned responsibilities.
We look forward to your valuable contribution and wish you a rewarding learning experience with Mavericks Solar Energy Solutions Pvt. Ltd.

You're Sincerely,
For Mavericks Solar Energy Solutions Pvt. Ltd.

Arbind Kumar (Director)

Regd. 44, F/F, GALI NO-1, VILLAGE KHICHRI PUR, NEAR KENDRIYA VIDYALAYA GATE NO-2, East Delhi, 110091 Tel: 011-2999-6848 | Ph: 954-067-4848 | GST: 07AAKCM0605L1ZG
www.maverickseenergy.in | mavericksps15@gmail.com

DECLARATION

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INTERNSHIP REPORT (22EEE83)

ON

IOT-BASED AIR QUALITY MONITORING SYSTEM

By

ACHUTHA E.B

1NH22EE005

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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Internship Completion Certificate

It is certified that Ms. Achutha E.B, Department of Electrical and Electronics Engineering, bearing USN:1NH22EE005 of New Horizon College of Engineering carried out her internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of marks out of 100 marks is awarded. 84

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr. R Mohan Das

Designation: Associate Professor

Email: Mohandass31new@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**IoT based Air Quality Monitoring System**" was carried out by **Ms. Achutha E.B (1NH22EE005),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. R Mohan Das	**Dr. S Sujitha**	**Dr. Manjunatha**
Associate professor	Prof and HOD, EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaikondrahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	12/05
2. DR S KANNITHAN	12/05

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Achutha E B
1NH22EE005
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Achutha E B,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - **Internship Title:** IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor– AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Dr. R Mohan Das** and under the supervision of Internship Supervisor (Industry) **Dr. Sujin Jose** submitted as a part of the Internship (22EEE83) of B. E. in **Electrical and Electronics Engineering** in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Achutha E.B

USN: 1NH22EE005

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be impossible without the mention of the people who made it possible, whose constant guidance and encouragement crowned our efforts with success.

We have great pleasure in expressing gratitude to **Dr. Mohan Manghnani**, Chairman, New Horizon Educational Institutions, for providing necessary infrastructure and creating good environment.

We take this opportunity to express our profound gratitude to **Dr. Manjunatha**, Principal, New Horizon College of Engineering, for his constant support and encouragement.

We would like to thank **Dr. R J Anandhi**, Professor and Dean-Academics, NHCE, for her valuable guidance.

We would like to thank **Dr. S Sujitha**, Professor and HOD-EEE, Department of EEE, her constant support.

We also express our gratitude to the internship Mentor, **Dr. R Mohan Das**, Associate professor, Dept. of EEE for constantly monitoring the development of the internship and setting up precise deadlines. Their valuable suggestions had been the motivating factor in completing the work.

Finally, a note of thanks to all the teaching and non-teaching staff of the department, for their cooperation extended to us, and our parents and friends, who helped us directly or indirectly in the course of the project work.

ACHUTHA E.B
1NH22EE005

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INTERNSHIP REPORT (22EEE83)

ON

DIGITAL MARKETING AND BRAND MANAGEMENT

By

Aditya Narayan Sasmal

1NH22EE007

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Aditya Narayan Sasmal, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE007 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of hisregularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 86 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr.Mohan Das R

Designation: Associate Professor

Official Email: mohandas@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

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Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"IOT-BASED PROJECT DEVELOPMENT"** was carried out by **Mr. Aditya Narayan Sasmal (1NH22EE007),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr.Mohan Das R	**Dr. Sujita S**	**Dr. Manjunatha**
Associate Professor	Prof and HOD-EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kasturinagar, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR S	1 .....
2 DR S. KANNADHASAN	2 ..... 12/05

INTERNSHIP OFFER LETTER

EEE dept

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 27/01/2026

To

Aditya Narayan Sasmal
1NH22EE007
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Aditya Narayan Sasmal,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT).**

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the **internship period**, you will work on **Hands-on IoT projects** involving sensor integration, **embedded systems**, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering
Bangalore - 560103

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr.Mohan Das R and under the supervision of Internship Supervisor Dr. A.Sujin Jose submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Aditya N.S.

Signature of the Student

Student Name: Aditya Narayan Sasmal

USN: 1NH22EE007

NEW HORIZON
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INTERNSHIP REPORT (22EEE83)

ON

DATA ANALYST INTERN

By

ADITYA PRASAD

1NH22EE008

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Aditya Prasad, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE008 of New Horizon College of Engineering carried out his internship from 1/1/2026 to 30/4/2026 in the Elevate Labs Pvt ltd.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 86 marks out of 100 marks is awarded.

Date 7/5/2026

Signature of Mentor

Name of Mentor: Pooja Jose

Designation: Assistant Professor

Official Email: poojaj.nhce@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**DATA ANALYST INTERN**" was carried out by **Mr. Aditya Prasad (1NH22EE008),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Prof. Pooja Jose	**Dr. S. Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	12/05
2. Dr S. KANNITHAN	

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INTERNSHIP OFFER LETTER

Dear

Date: 30 December 2025

Aditya Prasad

We are pleased to offer you the position of **Data Analyst Intern** at Elevate Labs, effective from **1st January 2026** to **30th April 2026.**

This internship is designed to provide structured learning, hands-on exposure, and practical experience in **data analytics through real-time projects and guided assignments** aligned with current industry standards. During the internship period, you will be expected to actively participate in assigned tasks, adhere to organizational policies, and maintain professional conduct at all times.

You will work under the guidance of experienced professionals at Elevate Labs and contribute to various data analysis activities, including but not limited to data collection, data cleaning, data transformation, exploratory data analysis, reporting, and visualization. This role is designed to enhance your analytical thinking, problem-solving abilities, and understanding of real-world data-driven decision-making workflows.

Please note that **this letter constitutes an offer of internship only.** An offer letter by itself does not represent or confirm successful completion of the internship. Any **Internship Completion Certificate and/or Letter of Recommendation shall be issued only upon successful completion** of the internship duration, satisfactory performance of all assigned responsibilities, and full compliance with the policies, standards, and guidelines of Elevate Labs.

We believe this internship will provide **valuable professional exposure** and contribute meaningfully to your career development. We look forward to welcoming you to the Elevate Labs team.

Kindly **acknowledge your acceptance of this offer** by replying to this letter.
For Elevate Labs

APPROVED
ELEVATE LABS

Authorized Signatory
Elevate Labs

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MICRO, SMALL & MEDIUM ENTERPRISES
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Skill India
कौशल भारत - कुशल भारत

BTG , Bengaluru - 560037
elevatelabs.in I hr@elevate-labs.info I +91 8660887260

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INTERNSHIP REPORT (22EEE83)

ON

INTERNSHIP EXPERIENCE AT TORISHIMA PUMPS

By

AISHWARYA C S

1NH22EE009

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Aishwarya C S, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE009 of New Horizon College of Engineering carried out her internship from 19/1/2026 to 17/4/2026 in the Toroishima Pumps.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 85 marks out of 100 marks is awarded.

Date:12/05/26

Ch. Kavitha

Signature of Mentor

Name of Mentor: Kavitha C H

Designation: Assistant Professor, Dept of EEE

Email : chennakavithaee@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "INTERNSHIP EXPERIENCE AT KIRLOSKAR PUMPS" was carried out by **Ms. Aishwarya C S(1NH22EE009)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Kavitha CH	**Dr. Sujitha S**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR	
2 Dr S. KANAGARAN	

Company Certificate

TORISHIMA

TORISHIMA PUMPS (INDIA) PVT. LTD
Registered Office: 1003, 10th Floor, Tower B, Millennium Plaza, Sector 27, Gurgaon - 122009, Haryana, India
Tel: +91-0124-4728950, Email: sales@torishima.co.in, Web: www.torishima.co.jp/en
CIN: U29253HR2011PTC041898

17th April 2026

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Aishwarya has successfully completed her internship with Torishima Pumps (India) Pvt Ltd. Her internship tenure was from 19th January 2026 to 17th April 2026. She was working with Service Operations Department and gained hands-on experience with the projects and tasks assigned to her

During the span, we found her punctual and hardworking person. Her learning powers are good and she picks up swiftly. Moreover, her interpersonal and communication skills are excellent

We wish her a bright future

Yours truly,

For Torishima Pumps (India) Pvt Ltd.,

TORISHIMA PUMPS (INDIA) PVT. LTD. Bengaluru 562 114

Manoj Grover
Managing Director

Works Address: # 27 B, C, D, Hosakote KIADB Industrial Area, Chokkanahalli Village, Kasaba Hobli, Hosakote Taluk, Bengaluru 562114, Karnataka, India
Tel: +91-80-68111900, Email: service@torishima.co.in, Web: www.torishima.co.jp/en

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Kavitha C H and under the supervision of Internship Supervisor (Industry) Dimple Grover submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Aishwarya C S

USN: 1NH22EE009

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)
ON
ENTREPRENEURSHIP AND BUSINESS MANAGEMENT

By

Akshat Chopra

1NH22EE010

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr.Akshat Chopra, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE010 of New Horizon College of Engineering carried out his/her internship from 10/1/2026 to 10/5/2026 in the Edutainer (PAT Technologies Private Limited).

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 85 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Surat Pyari Atti

Designation: Assistant Professor

Official Email: suratpyari271184@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"ENTREPRENEURSHIP AND BUSINESS MANAGEMENT"** was carried out by **Mr.Akshat Chopra (1NH22EE010),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Name of the Mentor	**Name of the HOD**	**Dr. Manjunatha**
Designation	Prof and HOD- XYZ	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1... VINOD KUMAR S	
2... DR S. KANIGHAN	

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Surat Pyari Atti and under the supervision of Internship Supervisor (Industry) Mr. Shrawan Tiwari, Founder & CEO, Edutainer (PAT Technologies Private Limited), submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Akshat Chopra

USN: 1NH22EE010

NEW HORIZON
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Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

PRODUCT OPERATIONS AND MESSAGING COMPLIANCE IN CLOUD COMMUNICATIONS

By

Ashitha Subbaiah

1NH22EE015

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Ashitha Subbaiah Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE015 of New Horizon College of Engineering carried out her internship from 10/09/2025 to 10/06/2026 at Plivo Inc.,Bengaluru, in the role of Product Operations Engineer Intern.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 95 marks out of 100 marks is awarded.

Date: 11/5/26

Sangeetha

Signature of Mentor

Name of Mentor: Sangeetha.C.N

Designation:

Official Email:

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "PRODUCT OPERATIONS AND MESSAGING COMPLIANCE IN CLOUD COMMUNICATIONS" was carried out by **Ms. Ashitha Subbaiah (1NH22EE015),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Prof. Sangeetha C N	**Dr. Sujitha S**	**Dr. Manjunatha**
Assistant Professor	Professor and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR.J	12/25
2. Dr S.KANIGHAN	12/25

Plivo

Sep 09, 2025

To,

Ashitha Subbaiah
New Horizon College of Engineering, Bengaluru

Re: Offer of Internship

Dear Ashitha Subbaiah,

On behalf of Plivo India Private Limited ("Plivo" or the "Company"), I am pleased to offer you an internship opportunity beginning **Sep 10, 2025, to Jun 10, 2026**. The initial terms of your internship with the Company are as set forth below.

1. Position.

On your start date, you will begin your internship with the Company as a **Product Operations Engineer - Intern**, at the Company's Bengaluru office. You agree to the best of your ability and experience that you will be at all times loyal and conscientious to perform all of the duties and obligations required of and from the Company. During the term of your internship, you further agree that you will devote all of your business time and attention to the business of the Company and that you will not, directly or indirectly, engage or participate in any personal, business, charitable or other enterprise that is competitive in any manner with the business of the Company, whether or not such activity is for compensation.

2. Stipend.

You will be paid stipend of **INR 30,000** less deductions and all required withholdings. Your stipend will be paid monthly on the Company's regularly scheduled pay dates. As an Intern, you will not be eligible to receive any benefits.

3. Confidential Information and Non-Solicitation Agreement.

Like all Company employees, you will be required, as a condition of your internship in the Company, to abide by Company rules and policies. In addition, your acceptance of this offer and commencement of internship with the Company is contingent upon the execution, and delivery to the Company, of the enclosed Confidential Information and Non-Solicitation Agreement, which, among other things, prohibits unauthorized use or disclosure of the Company's confidential information and the unauthorized disclosure and use of any third party proprietary and confidential information. Your acceptance of this position does not breach any agreement that you may have with any third party (e.g., Employment and /or Non- Compete Agreement with a current or former employer, or other entity). You further agree that you will not bring onto Company premises any unpublished documents or property belonging to any former employer or other entity to whom you have an obligation of confidentiality. In addition, as a condition of internship, you agree that you will not assist any person or organization in competing with the Company, in preparing to compete with the Company or in hiring any employees or contractors of the Company.

Prior to your Start Date and continuing throughout the duration of your internship, you agree to disclose to the Company in writing, any continuing outside working relationships with other customers or entities with whom you are working or will work (whether or not for compensation), as well as any potential conflicts of interest, sources of income or other business endeavors.

4. At-Will Internship

During your Internship with Plivo; you or the Company may terminate the internship at any time, with or without notice, and with or without cause. By accepting internship with Plivo, you understand and agree that this at-will relationship cannot be changed or retracted, either orally or in writing, or by any policy or conduct, unless you receive a document expressly stating that your internship is no longer at-will, which is signed both by you and the Company's HR Director.

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Plivo

5. Additional Information.

Of course, if you accept our offer of internship, you will receive more information regarding your terms and conditions of internship and the Company's policies and procedures (the "Employment Materials"). These materials, however, will not change your at-will internship status and are merely meant to provide additional information relating to your duties and responsibilities as an intern at the Company.

This letter, the Confidential Information and Non-Solicitation Agreement and the Employment Materials contain all of the terms of your internship with the Company and supersede any prior understandings or agreements, whether oral or written, between you and the Company. This letter may not be amended or modified except by an express written agreement signed by you and the HR Director.

This offer expires in 3 business days from date of receipt and is contingent upon your references providing acceptable feedback, proper proof of work authorization, and a signed copy of the Confidential Information and Non-Solicitation Agreement.

Sincerely,

For Plivo India Private Limited

Prabha M.R.

Prabha Masilamani

Director – Human Resources

Acceptance:

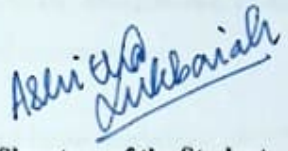
I, **Ashitha Subbaiah**, have read, understood, and accept this offer of internship, as set forth above, with company and will report on the Joining Date, intimated by the Company.

Signature: Ashitha Date: 09 / 09 / 2025

Doc ID: fb435cc89c6df6951fab6a01447f1ae2dde55e58

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor, Prof. Sangeetha C N and under the supervision of Internship Supervisor (Industry,) Mr. Diwyanshu Sharma submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.



Signature of the Student

Student Name: Ashitha Subbaiah

USN: 1NH22EE015

NEW HORIZON
COLLEGE OF ENGINEERING

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INTERNSHIP REPORT (22EEE83)

ON

Entrepreneurship and Business Administration

(Virtual Internship Program)

By

BM MITHUN

1NH22EE016

Under The Guidance of

INTERNAL GUIDE

Prof. Anitha A

Senior Assistant Professor

Department of EEE,NHCE

DEPARTMENT OF ELECTRICAL ENGINEERING

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that **Mr. BM Mithun** from Department of Electrical Engineering bearing USN: **1NH22EE016** of New Horizon College of Engineering carried out his/her internship in "Entrepreneurship and Business Administration - Virtual Internship Program ". On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 86 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: Prof. Anitha A

Designation: Senior Assistant Professor

Official Email: anithanelson24@gmail.com

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "Entrepreneurship and Business Administration - Virtual Internship Program" was carried out by **Mr. BM Mithun (1NH22EE016),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Prof. Anitha A	**Dr. S Sujitha**	**Dr. Manjunatha**
Senior Associate Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of Electrical Engineering	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMARS	
2. Dr. S. KANITHAN	

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INTERNSHIP CERTIFICATE

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

CENTRE FOR ONLINE EDUCATION

HONOURS, MINORS, CERTIFICATE AND SKILL ENHANCEMENT COURSES

Elite GOLD

COURSE COMPLETION CERTIFICATE

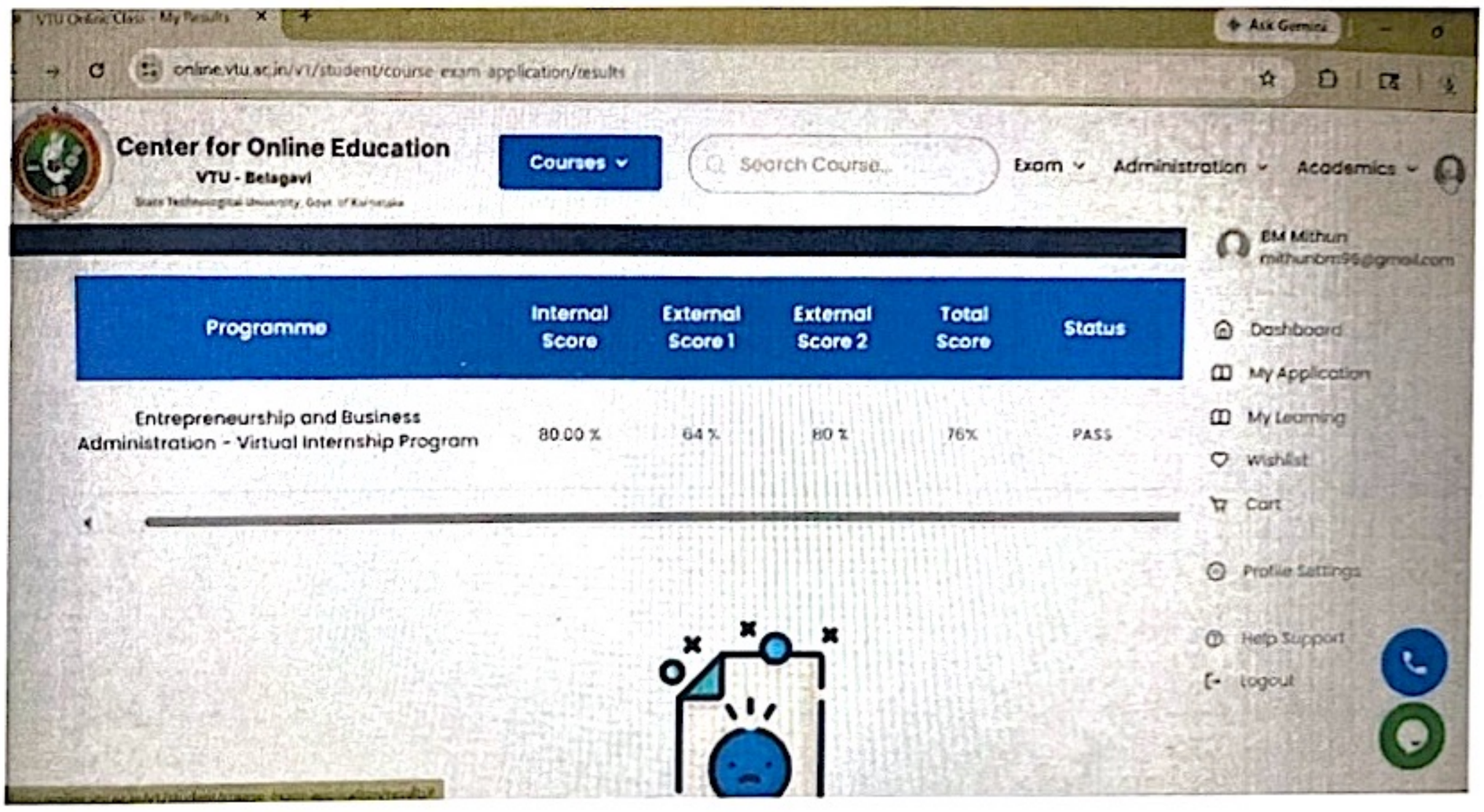
This is to Certify that Dr/Mr/Ms BM Mithun with USN INH22EE016

has successfully completed Entrepreneurship and Business Administration - Virtual Internship Program

Course of 12 Credits on 2026-04-08

from VTU - Centre for Online Education.

Registrar (Evaluation)



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DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Prof. Anitha A and submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: BM Mithun

USN: 1NH22EE016

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NEW HORIZON
COLLEGE OF ENGINEERING
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Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

SUBSTATION MAINTENANCE

By

BARU TEJESH

1NH22EE017

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. BARU TEJESH, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE017 of New Horizon College of Engineering carried out his internship from 12/01/2026 to 30/04/2026 in the Karnataka Power Transmission Corporation Limited. On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 87 marks out of 100 marks is awarded.

Date : 06/05/2026

R.M.D

Signature of Mentor

Name of Mentor : Dr. R Mohan Das

Designation : Associate Professor

Official Email : mohandas@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**Substation Maintanance**" was carried out by **Mr. BARU TEJESH (1NH22EE017)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. R Mohan Das	**Dr. S Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR C	
2 DR S.KANITHAN	

Company Certificate

ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಪ್ರಸರಣ ನಿಗಮ ನಿಯಮಿತ

ನೋಂದಾಯಿತ ಕಛೇರಿ : ಯು45109ಕೆ1999ಪಿಎಲ್‌ಸಿ025521

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ, ವೈಟ್‌ಫೀಲ್ಡ್ ರಸ್ತೆ, ಹೂಡಿ ಬೆಂಗಳೂರು-560 048

ದೂರವಾಣಿ ಸಂಖ್ಯೆ : 080-28604 ಇ-ಮೇಲ್ ವಿಳಾಸ kptclinternship@gmail.com

ಅಂತರ್ಜಾಲ https://kptcl.karnataka.gov.in

ಸಂಪ್ರ/ ಕವಿಪ್ರನಿನಿ/ಮಾಸ/75.67320/2025-26 ದಿನಾಂಕ : 9 JAN 2026

ಅಧಿಕೃತ ಜ್ಞಾಪನಾ ಪತ್ರ

ವಿಷಯ: **"Substation Maintenance"** ವಿಷಯದ ಮೇಲಿಂದ ಕವಿಪ್ರನಿನಿ ಯಲ್ಲಿ ತರಬೇತಿಯನ್ನು ಮಾಡಲು ಅನುಮೋದನೆಯನ್ನು ನೀಡುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: ನಿಮ್ಮ ಪತ್ರಿಕಾ ಕಾರ್ಯಾ ಆದ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು ರವರ ಪತ್ರ ದಿನಾಂಕ: 08.01.2026

****

ನಿಮ್ಮ ಪತ್ರಿಕಾ ಕಾರ್ಯಾ ಆದ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು ಇಲ್ಲಿ ಬಿ.ಇ(ಇ & ಇ) ಪದವಿಯಲ್ಲಿ ವ್ಯಾಸಂಗ ಮಾಡುತ್ತಿರುವ, ಈ ಕೆಳಂದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಶ್ರೀ ಬಿ ಪದ ಕುಮಾರ ಸ್ವಾಮಿ **ಹೆಚ್ ಎಸ್**, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), 400ಕವಿ ಸ್ಟೇಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು ರವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ **"Substation Maintenance"** ವಿಷಯ ವಿಷಯದ ಕುರಿತಂತೆ, ದಿನಾಂಕ: **12.01.2026** ರಿಂದ **30.04.2026** ರವರೆಗೆ ತರಬೇತಿಯನ್ನು ಪಡೆಯಲು ಈ ಕೆಳಗಿನ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಒಪ್ಪಿಗೆಯಂತೆ ಅನುಮೋದನೆಯನ್ನು ನೀಡಲಾಗಿದೆ.

- ಮೇಲಿ ತರಬೇತಿಗಳು ಯಾವುದೇ ರೀತಿಯಲ್ಲಿ ಕವಿಪ್ರನಿನಿಯ ನಿಯಮಿತ ಕರ್ತವ್ಯಗಳನ್ನು ಅತ್ತಿಪಡಿಸಬಾರದು.
- ತರಬೇತಿ ಪಡೆದ ವಿದ್ಯಾರ್ಥಿಯು/ ವಿದ್ಯಾರ್ಥಿಗಳು, ತರಬೇತಿಯು ಮುಗಿದ ದಿನಾಂಕದಿಂದ **ಒಂದು ತಿಂಗಳೊಳಗೆ** ತರಬೇತಿಯ ಮುಕ್ತಾಯ ವರದಿಯನ್ನು ಕಾಲೇಜಿನ ನೇರವಾಗಿ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ, ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಹಿಯನ್ನು ಒಳಗೊಂಡಿರತಕ್ಕದ್ದು ಮತ್ತು ಕವಿಪ್ರನಿಯ ನಿಗದಿತ 'ಎ' ನಮೂನೆಯಲ್ಲಿ ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರು ಸಹಿ ಮಾಡಿದ ತರಬೇತಿಯ ಅವಧಿಯಲ್ಲಿ ಮತ್ತು ಮಾರ್ಗಸೂಚಿಯ ದೃಢೀಕರಣ ಪತ್ರವನ್ನು ಈ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸಿದ ನಂತರ, ಸಂಬಂಧಪಟ್ಟ ಕಾಲೇಜಿಗೆ ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ತರಬೇತಿಯ ಮುಗಿಸಿಕೊಂಡ ಬಗ್ಗೆ, ಈ ಕಛೇರಿಯಿಂದ ಪ್ರಮಾಣ ಪತ್ರವನ್ನು ನೀಡಲಾಗುವುದು.

ಕ್ರಮ ಸಂ	ವಿದ್ಯಾರ್ಥಿಗಳ ಹೆಸರು	ಯು.ಎಸ್.ಎನ್/ನೋಂದಣಿ ಸಂಖ್ಯೆ
1	ಚೇತನ್ ಎಸ್	1NH22EE029
2	ಮಾದು ತೇಜೇಶ್	1NH22EE017

Kaulbl 9/1/2026

ಆಡಳಿತಾಧಿಕಾರಿ

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ,

ಕವಿಪ್ರನಿನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು.

ಪ್ರತಿಗಳು:

1. ಶ್ರೀ ಬಿ ಪದ ಕುಮಾರ ಸ್ವಾಮಿ ಹೆಚ್ ಎಸ್, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), 400ಕವಿ ಸ್ಟೇಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು.
2. ಮುಖ್ಯಸ್ಥರು, ನಿಮ್ಮ ಪಾಲಿಟೆಕ್ನಿಕ್ ಕಾಲೇಜ್ ಆದ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು.
3. ಸಂಬಂಧಿಸಿದವರು ಪೆಟ್ರೋಲ್/ ಸಂಪ್ರ/ ಕವಿಪ್ರನಿನಿ/ ಇಇ(ವಿ)-2/ ಕವಿ / ಮುಂಕ

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. R Mohan Das and under the supervision of Internship Supervisor (Industry) Mr. Shivakumar Swamy, submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

B. Tejesh

Signature of the Student

Student Name: BARU TEJESH

USN: 1NH22EE017

NEW HORIZON
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INTERNSHIP REPORT (22EEE83)

ON

IOT – BASED PROJECT DEVELOPMENT - SMART CLASSROOM AND ACADEMIC BLOCK AUTOMATION

By

Basavaprabhu K Kumbar

1NH22EE018

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electronics and Communication

CERTIFICATE

Certified that the internship work entitled "**SMART CLASSROOM AND ACADEMIC BLOCK AUTOMATION**" was carried out by **Mr. Basavaprabhu Kumbar (1NH22EE018),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Prof. Pooja Jose	**Dr. S. Sujitha**	**Dr. Manjunatha**
Assistant Professor	**Prof and HOD**	Principal
Dept. of EEE	**Dept. of EEE**	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560 103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR. S	12/05
2. DR. S. KANITHAN	12/05

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Basavaprabhu K Kumbar, Department of Electrical and Electronics bearing USN: 1NH22EE018 of New Horizon College of Engineering carried out his internship from 19/01/2026 to 30/04/2026 in the AICTE IDEA LAB

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 85 marks out of 100 marks is awarded.

Date: 7/5/2026

Signature of Mentor

Name of Mentor: Pooja Jose

Designation: Assistant Professor

Official Email: poojaj.nhce@newhorizonindia.edu

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Basavaprabhu Kallappa Kumbar
1NH22EE018
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Basavaprabhu Kallappa Kumbar,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - **Internship Title:** IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

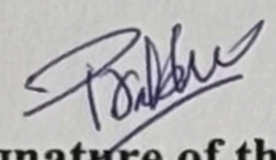
We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
New Horizon College of Engineering
Ring Road, Bellandur Post, Near Marathahalli
Bengaluru, Bangalore - 560103

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Poja Jose and under the supervision of Internship Supervisor (Industry) Dr. A Sujin Jose submitted as a part of the Internship (22ECE83) of B. E. in Electronics and Communication in New Horizon College of Engineering during the academic year 2025-2026.



Signature of the Student

Student Name: Basavaprabhu Kumbar

USN: 1NH22EE018

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

"CYBER SECURITY & ETHICAL PRACTICES INTERNSHIP"

By

Bharath Kumar

1NH22EE019

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. **Bharath Kumar**, Department of **Electrical & Electronics Engineering** bearing USN: **1NH22EE019** of **New Horizon College of Engineering** carried out his internship from **Jan 1 to Mar 31** at Unlox Academy.

On the basis of his regularity, punctuality, interest shown towards learning and skill development, team participation, work experience, and meeting internship objectives, a score of 86 marks out of 100 is awarded.

Date: 06/05/2026

VMH

Signature of Mentor

Name of Mentor: Prof. Veena Mahantesh Hunagund

Designation: Assistant Professor

Official Email: veena.mh_eee_nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical & Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "CYBER SECURITY & ETHICAL PRACTICES INTERNSHIP" was carried out by **Mr. Bharath Kumar (1NH22EE019),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical & Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Veena Mahantesh Hunagund	Head of the Department Department of Electrical & Electronics Engineering New Horizon College of Engineering Ring Road, Kaadubisanahalli, Bellandur Post. Bangalore - 560103, Karnataka, India **Dr. Sujitha S**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR.S	
2. DR. S.KANISTHAN	8/12/25

INTERNSHIP COMPLETION CERTIFICATE

UNLOX

Internship Completion Certificate

It is certified that Mr. **Bharath Kumar,** S/O Ashok Kumar, Department of **Electrical & Electronics** Engineering, bearing USN **1NH22EE019** of **New Horizon college of Engineering**, carried out his internship from **01 Jan 2026** to **31 Mar 2026** in this organization **Unlox (Rivoquix Learning Pvt. Ltd.)**

On the bases of his/her regularity, punctuality, interest shown towards learning skills, team participation, work experience and meeting internship objectives, a score of 100 marks out of 100 marks is awarded.

Remarks, if any - **Overall Performance in Internship is Good**.

Rivoquix Learning Private Limited Bengaluru

Date: **06 May 2026**

Signature of Mentor

Name of Mentor: **K S S Vardhan**
Designation: **Industrial Project Guide**
Address: **Unlox Academy, HSR Layout, 27th Main - Bangalore**
Email: **Vardhan@unloxacademy.com**

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Prof. Veena Mahantesh Hunagund** and under the supervision of Internship Supervisor (Industry) **Mr. Vardhan K** submitted as a part of the Internship (22EEE83) of B.E. in **Electrical & Electronics Engineering** in New Horizon College of Engineering during the academic year 2025–2026.

Signature of the Student

Student Name: Bharath Kumar

USN: 1NH22EE019

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

APPLICATION ENGINEER INTERN

By

Bhavana C

1NH22EE020

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Bhavana.C, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE020 of New Horizon College of Engineering carried out his/her internship from 21/1/2026 to 30/4/2026 in the GREMOT MOBILITY PVT LTD.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 96 marks out of 100 marks is awarded.

Date: 6/5/26

6/5/26

Signature of Mentor

Name of Mentor: Dr. Sujitha S

Designation: HOD - EEE

Official Email:

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"APPLICATION ENGINEER INTERN"** was carried out by **Ms. Bhavana C (1NH22EE202),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. Sujitha S	**Name of the HOD**	**Dr. Manjunatha**
Prof and HOD - EEE	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1... VINOD KUMAR S	
2... DR S. KANNIGHAN	

CERTIFICATE

Gremot Mobility Private Limited

V-1C, NGEF Ancillary Estate, Graphite India Road, Mahadevapura, Bangalore, Karnataka, 560048, India
CIN: U31900KA2019PTC127585 | GSTIN: 29AAHCG9747J1ZU
☎ +91 81231 84236 | ✉ contact@gremot.com | https://www.gremot.com

Date: 30th April 2026

Internship Completion Letter

To whomsoever it may concern,

This is to certify that Bhavana C has successfully completed her internship at Gremot Mobility from 21st January 2026 to 30th April 2026.

Her key responsibilities included:

- To develop an e-bike, configure the motor controller, and build the wiring harness for the e-bike.
- Integrated peripheral devices with the motor controller (throttle, e-brakes, thermistor, display device, and pedal assist sensor), and tested and validated the e-bike's performance.
- Procured materials for the project by sourcing peripheral devices from suppliers (throttle, display, e-brakes, etc.)

During the internship, Bhavana demonstrated commitment and enthusiasm towards her work and successfully contributed to the assigned projects.

We appreciate Bhavana's valuable contributions during her internship period and wish her all the best in her future endeavors.

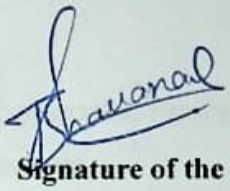
Gremot Mobility Pvt. Ltd. Bangalore

Regards,

Leena Vathsan
Human Resources
Gremot Mobility Private Limited

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Sujitha S and under the supervision of Internship Supervisor (Industry) Ms. Poojitha S submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.



Signature of the Student

Student Name: Bhavana C

USN: 1NH22EE020

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

PYTHON WITH GENERATIVE AI

By

Bhuvan Gowda S S

1NH22EE023

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Bhuvan Gowda S S, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE023 of New Horizon College of Engineering carried out his internship from 09/02/2026 to 09/05/2026 in the KodNest.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 89 marks out of 100 marks is awarded.

Date: 06/05/2026

Signature of Mentor

Name of Mentor: Veena M Hunagund

Designation: Assistant Professor

Official Email: veena.mh_eee_nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"Python with Generative AI"** was carried out by **Mr. Bhuvan Gowda S S (1NH22EE023),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Veena M Hunagund	**Dr. Sujitha S**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR. S	12/5
2 Dr S. KANITHAN	12/05

COMPANY CERTIFICATE

CERTIFICATE OF

INTERNSHIP

KodNest

To *Bhuvan Gowda S S*

For Successfully Completing ***Python Full Stack - Online Kodnest*** Internship, also enriching their skills and expertise in Python Full Stack - Online Kodnest development.

Is presented on ***May 06, 2026,***

Akash Pandey
CEO, Founder

DPIIT #startupindia nasscom ISO

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Veena M Hunagund and under the supervision of Internship Supervisor (Industry) Mr. Sandesh G submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Bhuvan Gowda SS

Signature of the Student

Student Name: Bhuvan Gowda S S

USN: 1NH22EE023

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IOT BASED PROJECT DEVELOPMENT – ASSET MONITORING

By

Bhuvan R

1NH22EE024

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr Bhuvan R, Department of Electrical and Electronics Engineering, bearing USN:1NH22EE024 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 96 marks out of 100 marks is awarded.

Date: 7/5/2026

Signature of Mentor

Name of Mentor: Sangeetha C N

Designation: Senior Assistant Professor

Official Email:

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled "**ASSET MONITORING**" was carried out by **Mr. Bhuvan R (1NH22EE024),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical And Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Mrs. Sangeetha C N	**Dr. Sujitha S**	**Dr. Manjunatha**
Senior Assistant Professor	Professor and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. Dr. S. KANITHAN	12/05

Company Certificate

NEW HORIZON COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Bhuvan R
1NH22EE024
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Bhuvan R,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - **Internship Title:** IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

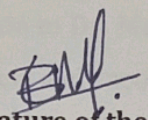
We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
Principal
New Horizon College of Engineering
Ring Road,
Bengaluru

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mrs Sangeetha C N and under the supervision of Internship Supervisor Dr A Sujin Jose submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.



Signature of the Student

Student Name: Bhuvan R

USN: 1NH22EE024

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

INTERNSHIP EXPERIENCE AT TORISHIMA PUMPS

By

CHANDINI N

1NH22EE025

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. CHANDINI N Department of Electrical and Electronics Engineering bearing USN: 1NH22EE025 of New Horizon College of Engineering carried out his/her internship from 19/01/2026 to 17/04/2026 in the Torishima Pumps(India) Pvt Ltd.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: ?

Signature of Mentor

Name of Mentor: ANITHA A

Designation: Senior Assistant Professor

Official Email: anithanelson24@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"Internship Experience at Torishima Pumps"** was carried out by **Ms. Chandini N (1NH22EE025),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Anitha A	**Dr. Sujitha**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubeesanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR. S	
2. DR. S. KANITHAN	12/08

Company Certificate here

TORISHIMA PUMPS (INDIA) PVT. LTD
Registered Office: 1003, 10th Floor, Tower B, Millennium Plaza, Sector 27, Gurugram – 122002, Haryana, India
Tel: +91-0124-4728950, Email: sales@torishima.co.in, Web: www.torishima.co.jp/en
CIN: U29253HR2011PTC041898

17th April 2026

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Chandini N has successfully completed her internship with Torishima Pumps (India) Pvt Ltd. Her internship tenure was from 19th January 2026 to 17th April 2026. She was working with Service Operations Department and gained hands-on experience with the projects and tasks assigned to her.

During the span, we found her punctual and hardworking person. Her learning powers are good and she picks up swiftly. Moreover, her interpersonal and communication skills are excellent.

We wish her a bright future.

Yours truly,

For Torishima Pumps (India) Pvt Ltd.,

Torishima Pumps (India) Pvt. Ltd. Bengaluru 562 114

Manoj Grover
Managing Director

Works Address: #. 27 B, C, D, Hoskote KIADB Industrial Area, Chokkahalli Village, Kasaba Hobli, Hoskote Taluk,Bengalur 562114,Karnataka,India
Tel. +91-80-68111000, Email: service@torishima.co.in, Web: www.torishima.co.jp/en

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mrs. Dimple Grover and under the supervision of Internship Supervisor (Industry) Mrs. Anitha A submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Chandini N

USN:1NH22EE025

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IOT – BASED PROJECT DEVELOPMENT - SMART CLASSROOM AND ACADEMIC BLOCK AUTOMATION

By

Charan Kora

1NH22EE026

Department of Electrical and Electronics

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Charan Kora, Department of Electrical and Electronics bearing USN: 1NH22EE026 of New Horizon College of Engineering carried out his internship from 19/01/2026 to 30/04/2026 in the AICTE IDEA LAB

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 91 marks out of 100 marks is awarded.

Date: 11/5/26

11/5/26

Signature of Mentor

Name of Mentor: Dr Sujitha S

Designation: Professor and HOD

Official Email: hod_eee@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electronics and Communication

CERTIFICATE

Certified that the internship work entitled "**SMART CLASSROOM AND ACADEMIC BLOCK AUTOMATION**" was carried out by **Mr. Charan Kora (1NH22EE026)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560 103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR I S	
2. DR. S. KANITHAN	

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Charan Kora
1NH22EE026
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Charan Kora,

We are pleased to inform you that you have been selected for a three-month internship at the **AICTE IDEA Lab, New Horizon College of Engineering,** under the domain of **Internet of Things (IoT).**

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering
Ring Road, Bellandur Post, Near Marathahalli
Bangalore - 560103

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Sujitha S and under the supervision of Internship Supervisor (Industry) Dr. A Sujin Jose submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Charan Kora

USN: 1NH22EE026

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

Human Pose Detection and Exercise Analysis using Computer Vision
&
Product Lifecycle Management

By

CHAUDHARY MANAS RAY

1NH22EE028

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Chaudhary Manas Ray Department of Electrical and Electronics Engineering bearing USN: 1NH22EE028 of New Horizon College of Engineering carried out her internship from 02/01/26 to 07/04/26 in the Indian Institute of Science & 09/04/26 to 09/06/26 in the Capgemini Technology Services India Limited On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 95 marks out of 100 marks is awarded.

Date: 11/5/26

Signature of Mentor

Name of Mentor: Dr. S. Sujitha

Designation: Prof. & HOD EEE

Official Email: dr.s.sujitha@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**Human Pose Detection and Exercise Analysis using Computer Vision &Product Lifecycle Management**" was carried out by **Mr. Chaudhary Manas Ray(1NH22EE028),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	12/25
2. DR. S. KANITHAN	12/25

ADD Company Certificate here

Capgemini

Capgemini Technology Services India Limited

Registered Office No. 14, Rajiv Gandhi Infotech Park, Hinjawadi Phase-III
MIDC-SEZ, Village Man, Taluka Mulshi,Pune - 411057, Maharashtra, India
CIN: U85110PN1999PLC145550
E: cgcompanysecretary.in@Capgemini.com
www.capgemini.com/in-en

INTERNSHIP OFFER

Ref: 4934393 / 433448
Date: 04/01/2026

Dear **Chaudhary Manas Ray**,

As per our discussion with you, we are pleased to inform you that you have been provided the opportunity to pursue your internship with **Capgemini Technology Services India Limited** ("Capgemini or Company") during the period **04/08/2026** till **08/08/2026**

You have to report by 9.00 A.M. at Bangalore office to complete your on-boarding and joining formalities. In this regard, you may contact security at the main gate for your entry pass at

Address: Capgemini Technology Services India Limited, No. 156-162P & 165-170P, EPIP Phase II, Whitefield, Bengaluru - 560066, Karnataka

During the period of your internship, you will be entitled to an internship stipend of Rs. **14,000.00**. Please note aside from the stipend amount, you will not be entitled to any other re-imbursements or allowances.

Please note that your internship will not imply any kind of employment regular or contractual and the purpose is solely to facilitate your learning. We reserve the right to cancel/terminate the internship without notice and assigning any reason thereto.

Private Information Policy — You will be bound by the Capgemini Private Information Policy as described in Annex 1 for holding in confidence any trade secrets or confidential business and technical information of the Company or its clients.

Intellectual Properties — Additionally, you will also be bound by the Capgemini policy with respect to Intellectual Property as described in Annex 2

Department of Aerospace Engineering
Dr. S N Omkar
Chief Research Scientist
Aerospace Engineering Department,
Indian Institute of Science (IISc), Bangalore
Chair, Committee on Standardization for UAS (BIS)
Chair, Advanced Air Mobility, ARTPARK@IISc
Honorary Professor, Vedic Wellness University

Indian Institute of Science
Bangalore – 560012, INDIA
07/01/2026
Bangalore
E-mail: omkar@iisc.ac.in

Subject: Internship confirmation

Dear Chaudhary Manas Ray,

This is to confirm your internship at Cint lab (AE129), Department of Aerospace Engineering, under Dr.S N Omkar. The internship period is for 6 months starting from the January 02, 2026.

During the course of the internship, you will be working from: Cint lab (AE129), Department of Aerospace Engineering, Indian Institute of Science - Bengaluru

Note: This letter is just a confirmation of the internship, which implies the internship is ongoing and yet to be completed.

Message to security: Please provide the gate entry pass to the above candidate.

Regards,

Dr. S. N. Omkar

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. S. Sujitha and under the supervision of Internship Supervisor (Industry) Dr. S.N. Omkar submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Chaudhary Manas Ray

USN: 1NH22EE028

NEW HORIZON
COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

SUBSTATION MAINTENANCE

By

Chethan S

1NH22EE029

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Chethan S, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE029 of New Horizon College of Engineering carried out his internship from 12/01/2026 to 30/04/2026 in the Karnataka Power Transmission Corporation Limited. On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 86 marks out of 100 marks is awarded.

Date : 06/05/2026

Signature of Mentor

Name of Mentor : Soumya K V

Designation : Assistant Professor

Official Email : soumyakv.nhce@newhorizonindia.edu

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"Substation Maintanance"** was carried out by **Mr. Chethan S (1NH22EE029),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Soumya K V	**Dr. S Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD - EEE	Principal
Dept. of EEE	Dept of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. Dr. S. KANITHAN	12/05

Company Certificate

ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಪ್ರಸರಣ ನಿಗಮ ನಿಯಮಿತ

ನಿಗಮದ ಗುರುತಿನ ಸಂಖ್ಯೆ (ಕೆ.ವಿ.ಎನ್): ಯು40109ಕೆಎ1999ಎಸ್‌ಜಿಸಿ025521

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ, ವೈಟ್‌ಫೀಲ್ಡ್ ರಸ್ತೆ, ಹೂಡಿ ಬೆಂಗಳೂರು-560 048

ಅಂತರ್ಜಾಲ: https://kptcl.karnataka.gov.in

ಮೂರವಾಣಿ ಸಂಖ್ಯೆ: 080-28540666

ಇ-ಮೇಲ್ ವಿಳಾಸ: kptclinternship@gmail.com

ಸಂಖ್ಯೆ: ಕವಿಪ್ರನಿನಿ/ಪಿ75/67320/2025-26

ದಿನಾಂಕ: 9 JAN 2026

ಅಧಿಕೃತ ಜ್ಞಾಪನಾ ಪತ್ರ

ವಿಷಯ: **"Substation Maintenance"** ವಿಷಯದ ಕುರಿತಂತೆ ಕ.ವಿ.ಪ್ರ.ನಿ.ನಿ ಯಲ್ಲಿ ತರಬೇತಿಯನ್ನು ಮಾಡಲು ಅನುಮೋದನೆಯನ್ನು ನೀಡುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು ರವರ ಪತ್ರ ದಿನಾಂಕ: 08.01.2026

****

ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು. ಇಲ್ಲಿ ಬಿ.ಇ(ಇ & ಇ) ಪದವಿಯಲ್ಲಿ ವ್ಯಾಸಂಗ ಮಾಡುತ್ತಿರುವ, ಈ ಕೆಳಕಂಡ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ, ಶ್ರೀ ಶಿವ ಕುಮಾರ ಸ್ವಾಮಿ ಹೆಚ್ ಎಸ್, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), 400ಕವಿ ಸ್ವೀಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು ರವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ **"Substation Maintenance"** ವಿಂಬ ವಿಷಯದ ಕುರಿತಂತೆ, ದಿನಾಂಕ: **12.01.2026** ರಿಂದ **30.04.2026** ರವರೆಗೆ ತರಬೇತಿಯನ್ನು ಪಡೆಯಲು ಈ ಕೆಳಗಿನ ಷರತ್ತುಗಳಿಗೆ ಒಳಪಟ್ಟಂತೆ ಅನುಮೋದನೆಯನ್ನು ನೀಡಲಾಗಿದೆ.

- ಸದರಿ ತರಬೇತಿಗಳು ಯಾವುದೇ ರೀತಿಯಲ್ಲೂ ಕವಿಪ್ರನಿನಿಯ ನಿಯಮಿತ ಕರ್ತವ್ಯಗಳನ್ನು ಅಡ್ಡಿಪಡಿಸಬಾರದು.
- ತರಬೇತಿ ಪಡೆದ ವಿದ್ಯಾರ್ಥಿಯು/ ವಿದ್ಯಾರ್ಥಿಗಳು, ತರಬೇತಿಯು ಮುಗಿದ ದಿನಾಂಕದಿಂದ **ಒಂದು ತಿಂಗಳಿನೊಳಗೆ** ತರಬೇತಿಯ ಮುಕ್ತಾಯ ವರದಿಯನ್ನು ಕಾಲೇಜಿನ ಅಂತರಿಕ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ, ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಹಿಯನ್ನು ಒಳಗೊಂಡಿರತಕ್ಕದ್ದು ಮತ್ತು ಕವಿಪ್ರನಿನಿಯ ನಿಗದಿತ 'ಎ' ನಮೂನೆಯಲ್ಲಿ ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರು ಸಹಿ ಮಾಡಿದ ತರಬೇತಿಯ ವರಿಶೀಲನಾ ಮತ್ತು ಪೂರ್ಣಗೊಂಡ ದೃಢೀಕರಣ ಪತ್ರವನ್ನು ಈ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸಿದ ನಂತರ, ಸಂಬಂಧಪಟ್ಟ ಕಾಲೇಜಿಗೆ ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ತರಬೇತಿಯ ಪೂರ್ಣಗೊಂಡ ಬಗ್ಗೆ, ಈ ಕಛೇರಿಯಿಂದ ಪ್ರಮಾಣ ಪತ್ರವನ್ನು ನೀಡಲಾಗುವುದು.

ಕ್ರಮ ಸಂ	ವಿದ್ಯಾರ್ಥಿಗಳ ಹೆಸರು	ಯು.ಎಸ್.ಎನ್/ನೋಂದಣಿ ಸಂಖ್ಯೆ
1	ಚೇತನ್ ಎಸ್	**1NH22EE029**
2	ಬಾರು ತೇಜೇಶ್	**1NH22EE017**

Kaulbl 9/1/2026

ಆಡಳಿತಾಧಿಕಾರಿ

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ,

ಕ.ವಿ.ಪ್ರ.ನಿ.ನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು.

ಪ್ರತಿಗಳು:

1. ಶ್ರೀ ಶಿವ ಕುಮಾರ ಸ್ವಾಮಿ ಹೆಚ್ ಎಸ್, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), 400ಕವಿ ಸ್ವೀಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು.
2. ಮುಖ್ಯಸ್ಥರು, ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು.
3. ಸಂಬಂಧಪಟ್ಟ ವಿದ್ಯಾರ್ಥಿ/ ಸ.ಕಾ.ನಿ.ಇಂ(ವಿ)-2/ ಕ.ಪ್ರ./ ಮು.ಕ.

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mrs. Soumya K V and under the supervision of Internship Supervisor (Industry) Mr. Shivakumar Swamy, submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Chethan S

Signature of the Student

Student Name: Chethan S

USN: 1NH22EE029

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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INTERNSHIP REPORT (22EEE83)

ON

BHAIRAVI INDUSTRIAL SAFETY SECURITY AND FIRE ENGINEERING

By

DARSHAN D GOWDA

1NH22EE032

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. DARSHAN D GOWDA Department of Electrical and Electronics Engineering bearing USN: 1NH22EE032 of New Horizon College of Engineering carried out his internship from 05/1/2026 to 30/4/2026 in the BISAFE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 7

Signature of Mentor

Name of Mentor: Prof. ANITHA A

Designation : Sr. Assistant Professor

Official Email: anithanelson24@gmail.com

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "BISAFE" was carried out by **Mr. DARSHAN D GOWDA (1NH22EE032),** a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Ms. Anitha A	**Dr. Sujitha S**	**Dr. Manjunatha**
Sr. Assistant professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR.S	
2 DR. S. KANITHAN	4/12/25

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Certificate

BISAFE

Bhairavi Chambers, Pathare Thube Nagar,
Line No.2, Kharadi Bypas, Pune – 411014.
Email : info@bhairaviindustries.com
Mob : +91 8484030527 | +91 9845288000

Date: 02 / 05/ 2026

INTERNSHIP CERTIFICATE

This is to certify that Mr. DARSHAN D GOWDA (USN: INH22EE032) has successfully completed his 13 Weeks Internship Program with BISAFE Company.

During the **internship** period, he was deputed and workd at ZECO AIRCON PVT LTD.in association with **BISAFE.** from **05/01/2026 to 30/04/2026**.

During his tenure, he has demonstrated **good technical skills, discipline, and a strong willingness to learn**. He actively participaed in assigned tasks, projects, and responsibilities, and completed them to our satisfaction.

This internship was undertaken as part of the academic curriculum, and he has successfully completed the training under **BISAFE.**

We wish him all he best for future endeavors.

For BISAFE

BISAFE BISAFE

HR ADMIN & Manager

Security and Fire Engineering

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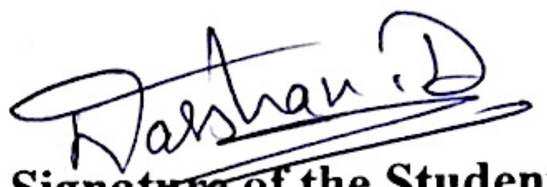
DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Anitha A and under the supervision of Internship Supervisor (Industry) Mr. DHANARAJ R submitted as a part of the Internship (22EEE83) of B. E. in Electrical And Electronics Engineering in New Horizon College of Engineering during the academic year 20252026.



Signature of the Student

Student Name: DARSHAN D GOWDA

USN: 1NH22EE032

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

HINDUSTAN AERONAUTICS LIMITED (HAL)

By

DEEPTHI R

1NH22EE033

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Deepthi R Department of Electrical and Electronics Engineering bearing USN: 1NH22EE033 of New Horizon College of Engineering carried out her internship from 27/1/2026 to 27/5/2026 in the HAL.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 76 marks out of 100 marks is awarded.

Signature of Mentor

Date: 12/may/26

Name of Mentor: Dr. Sujoy Das

Designation: Sr. Assistant Professor Official

Email:sujoy.d_eee_nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "HAL(Hindustan Aeronautics Limited)" was carried out by **Ms. DEEPTHI R (1NH22EE033),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Sujoy Das	Dr. Sujitha S	**Dr. Manjunatha**
Sr. Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. VINOD KUMAR S
2. DR. S.KANITHAN 12/05

ವಿಮಾನ ವಿಭಾಗ / एयरक्राफ्ट प्रभाग / AIRCRAFT DIVISION
ಬೆಂಗಳೂರು ಸಂಕೀರ್ಣ / बेंगलूर कॉम्प्लेक्स / BANGALORE COMPLEX
ಹಿಂದೂಸ್ತಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

ಅಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ ೧೭೮೮, ಬೆಂಗಳೂರು-೫೬೦೦೧೭, ಭಾರತ
पोस्ट बैग सं.1788, बेंगलूरु - 560 017, भारत
Post Bag No.1788, Bengaluru - 560 017, India
Ph. : 91 - 80 - 2231 1741
Fax : 91 - 80 - 2231 5188

A/HR/507/५०१/2026

January 23rd, 2026

The HoD,
Department of Electrical & Electronics Engg,
New Horizon College of Engineering,
Bangalore-560 103.

Sir / Madam,

Sub: Permission for Internship

***

Reference is made to your letter dated 06.01.2026 on the subject.

2. We are pleased to inform you that the following students who are studying BE(E&E) in your College have been permitted to carry out the internship for a period of 4 Months in Aircraft Division on 'No Pay No Fee' basis. The training is to be completed by the students within this period:

Sl No	Name	USN
(i)	Deepthi R	1NH22EE033
(ii)	Divyasree P	1NH22EE043

3. The following guidelines are to be followed by the students:

a) The Students should not quote classified information that may come to their knowledge during the internship / project.

b) The student should get the report vetted by the guide before submitting to the College with a copy's the undersigned.

c) The student will have to make their own arrangements for stay and transportation to the factory and back.

d) The Company will not take any responsibility for any accident /incidents that may occur inside or outside the factory premises.

e) The Students are required to bring with them Police clearance from the Commissioner of Police / Superintendent of Police as per proforma enclosed along with 2 Stamp size photos, xerox of College id card, address proof (Aadhar card, Passport or DL), Character Certificate issued by the College Authorities and contact Chief Manager (Security) for issuance of Security Pass.

www.hal-india.co.in

f) Students are prohibited from disclosing their identity as HAL Intern or any association with HAL on Social Media platform.

g) Electronic Items such as Camera, Pendrive, Mobile Phones, Digital Dairy, Calculator, etc. are not permitted in the Factory premises.

h) Trainees may avail the Canteen Services on payment basis.

i) Duly filled Indemnity Bond in a Non-Judicial Stamp for Rs.50/- for each trainee individually is to be submitted to HR Department on the day of reporting. Students will not be allowed to undertake the Internship till submission of the bond.

j) A minimum of 80% attendance is mandatory for successful completion of the Internship.

k) Students have to strictly follow the prescribed Dress Code i.e (for Ladies Salwar Kameez with Duppatta only and for Gents Formal Trousers and Shirts for the duration of the Training/Internship/Project Work.

l) The trainees are required to report at HAL, Aircraft Division, Bangalore Complex on 27.01.2026 to 27.05.2026 at 08:00AM for commencement of Internship.

Yours faithfully,
for Hindustan Aeronautics Ltd,

V. Arun Kumar

(Arun Kumar V)
Senior Manager (HR)

Encl: As stated

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Sujoy Das and under the supervision of (Industry) Mr. Shivakanthi Gunna submitted as a part of the Internship (22EEE83) of B. E. in Electrical And Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Deepthi. R

Signature of the Student

Student Name: DEEPTHI R

USN: 1NH22EE033

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

UX DESIGN AND GAME DESIGN & DEVELOPMENT

By

Deepu T

1NH22EE034

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr.Deepu T, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE034 of New Horizon College of Engineering carried out his/her internship from 21/1/2026 to 30/5/2026_ in the AICTE IDEA LAB, NHCE.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 9/05/26

Signature of Mentor

Name of Mentor: Dr. Sujoy Das

Designation: Senior Assistant Professor

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "UX DESIGN AND GAME DESIGN & DEVELOPMENT" was carried out by **Mr. Deepu T (1NH22EE034),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Sujoy Das	**Dr. S. Sujitha**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD, XYZ	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Outer Ring Road, Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. Dr. S. KANITHAN	12/12/25

ADD Company Certificate here

(sample)(if completion certificate is not received yet add your offer letter here)

PAT Technologies Private Limited

To,
DEEPU T

Date: 21/01/2026

Subject: Offer of Internship

Dear DEEPU T,

We are pleased to offer you the opportunity to join **Edutainer (PAT Technologies Pvt. Ltd.)** as an **Intern**. This internship is designed to provide you with hands-on experience, industry-relevant learning, and mentorship that will enhance your professional skills and career readiness.

Internship Details:

- **Internship Title:** Virtual Internship in **UX Design, Game Design Intern (Entry Level)**
- **Mode:** 100% Online / Remote
- **Duration:** 4 months
- **Month of joining**: January
- **Stipend:** Certification based
- **Working Hours:** Flexible

Roles & Responsibilities:

- Participate in virtual training sessions, live projects, and assignments.
- Collaborate with mentors and peers in project-based learning.
- Submit project work and reports within deadlines.
- Actively engage in discussions, reviews, and evaluations.

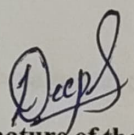
Benefits to Interns:

- **VTU Approved Internship Credits** (where applicable).
- Hands-on project exposure and industry mentorship.
- Internship Completion Certificate from **Edutainer**.
- Opportunity to build a strong professional portfolio.

PAT Technologies Private Limited
CIN: U51100HR2009PTC083365
Office: #525, Tower B-3 Spaze i-Tech Park, Sohna Road Gurgaon, Haryana, 122002
Website: www.edutainer.in, E-mail: info@edutainer.in

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Sujoy Das and under the supervision of Internship Supervisor (Industry) Mr. Bunty Deb submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.



Signature of the Student

Student Name: Deepu T

USN: 1NH22EE034

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

EMBEDDED MECHATRONICS AND IOT

By

Dhananjaya H

1NH22EE035

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs. Dhananjaya H, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE035 of New Horizon College of Engineering carried out his/her internship from 25/01/2026 to 25/05/2026 from the MINDSET IT SOLUTIONS & CONSULTANTS.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 85 marks out of 100 marks is awarded.

Date: **24/04/2025**

Internal

Signature of Mentor

MindsetCraft Labs Pvt. Ltd. Mysore-570004

External

Name of Mentor: Manjunatha Reddy C S

Designation: Professor

Official Email: manjucsreddy@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**EMBEDDED MECHATRONICS AND IOT**" was carried out by **Mr./ Ms. Dhananjaya H (1NH22EE035),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Karthika M	**Dr. Sujitha S**	**Dr. Manjunatha**
Associate Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMARS	
2. DR. S.KANITHAN	2/12/25

ADD Company Certificate here

Offer letter

mindset

MCA CIN NOR: U85491KA2024PTC184398

MSME REG NOR: UDYAM-KR-03-0099673

OFFER LETTER

Dear Mr/Ms DHANANJAYA H

We are pleased to offer internship on **EMBEDDED MECHATRONICS AND IOT**, in our organization with effect from **25/01/2026 to 25/05/2026.**

Please note the terms of this arrangement:

a. On joining the company you are required to comply with the policies values and obligations. it also requires you to abide by the management systems and culture defined by the company members.
b. All ownership and usage rights of any work completed under the internship by you will remain with our company only.
c. Upon termination of this agreement , you will return any property, documentation, computer programs, files, records or confidential information which is the company's property or dispose of same as per the instructions.
d. You will fully abide by the non disclosure agreement .if you have any questions on any of the above terms, please feel free to contact us at harish@mindsetit.in

we wish you a successful career working with mindset it solutions.

For **MINDSET IT SOLUTION,**

HARISH S
PROJECT MANAGER

MINDSET IT SOLUTIONS & CONSULTANTS
#2/E, 2nd Floor, 14th Main Road, Vijayanagar, Bangalore – 40, Opp. Vijayanagar Metro Station Next To Police station, Mob: +91 9844628808, +91 7676851841, www.mindsetit.in

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Karthika M and under the supervision of Internship Supervisor (Industry) Mr. Harish S submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Dhananjaya. H

Signature of the Student

Student Name: Dhananjaya H

USN:1NH22EE035

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

ELECTRICAL INTERN

By

DHANESH

1NH22EE036

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr.Dhanesh, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE036 of New Horizon College of Engineering carried out his internship from 16/01/2026 to 15/05/2026 in the HAL

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of ____ marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Soumya K V

Designation: Senior Assistant Professor

Official Email: soumyakv.@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled "**ELECTRICAL INTERN** " was carried out by **Mr. Dhanesh, (1NH22EE036),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in ELECTRICAL AND ELECTRONICS** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Soumya K V	**Dr. S. Sujitha**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubeesanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners

Signature with date

1. VINOD KUMAR. S 12/5
2. DR. S. KANITHAN 12/5

ಯಾದೃಶಿತ ಮತ್ತು ಸಮರ ಕಾರ್ಯವ್ಯವಸ್ಥೆ ಸಂಕೋಧನ ಮತ್ತು ವಿನ್ಯಾಸ ಕೇಂದ್ರ
मशिन एवं युद्धक प्रणाली अनुसंधान एवं अभिकल्प केंद्र
MISSION & COMBAT SYSTEM RESEARCH & DESIGN CENTRE
ವಿನ್ಯಾಸ ಸಂಕೀರ್ಣ / अभिकल्प कॉम्प्लेक्स / DESIGN COMPLEX
ಹಿಂದೂಸ್ತಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

ಮಾರತ್ತಹಳ್ಳಿ - ಅಂಚೆ, ಬೆಂಗಳೂರು - 560037
मारतहल्ली पोस्ट, बेंगलूरु - 560037
Marathahalli - Post, Bengaluru - 560037, India
ದೂರವಾಣಿ /Ph.: 91-80 - 22321490, 22322169
ಫ್ಯಾಕ್ಸ್/Fax: 91-80 - 2231318

No. D/MCSRDC/HR/INTERNSHIP/1159/2025

Date: 17.12.2025

To,
Dr. Sujitha S
Head of the Department
Dept. of EEE
New Horizon College of Engineering
Bangalore - 560103

Sir / Madam,

Sub: Internship on No-Pay-No-Fee-Basis.

Reference is made to your letter No. NHCE/EEE/IT/2025-26/15 dated 10.12.2025 requesting Internship to **BE(EEE), VII SEMESTER** student from **M/s New Horizon College of Engineering, Bangalore** on No-Pay-No-Fee-Basis in our organization.

2. We are pleased to accept the following student to undergo **INTERNSHIP** in MCSRDC, Design Complex, HAL, Bangalore – 560037 for a period from **16.01.2026 to 15.04.2026** subject to the terms & conditions mentioned below:

Mr. DHANESH

a) The Training is purely on No-Pay-No-Fee-Basis;
b) Only Bonafide students of the institution should be sponsored;
c) The students should be of Indian Nationality;
d) The students will strictly abide by the rules & regulations of the Company;
e) The Company will not provide Lodging, Boarding & Transport facilities. As such they have make their own arrangements;
f) The Company will not be responsible for any accident the student may meet with and the company will not be liable for any compensation thereof;
g) Submission of Request letter in original from the Principal / Director/ Dean of the College / Institute, on the official Letter Head of the College / Institute clearly indicating the particulars of the Students, specific field of study (if any), required duration of the study, etc. A photograph of the Students must be affixed in the letter, duly attested by the signatory of the letter, along with the College / Institute Seal.
h) The student should produce his/her **<u>One Passport Size Photograph & One Stamp Size Photograph, Character & Conduct Certificate (with the Photograph of the Student) in original</u> issued by the Head of the Institution and Original Police Verification / Original Acknowledgement for having applied for PVR (valid for 10 days only. Original to be submitted within 10 days). Undertaking to be submitted by Candidate in this regard at Annexure –I alongwith the photocopy to Security and .... Department;**
i) The student will have to submit the **<u>Undertaking / Indemnity Bond</u>** (format enclosed) to the Company before commencing Project Work/Industrial Training; The Bond will be given to the student when she/he report for Project Work/Industrial Training.
j) The Student is required to bring with them Police Clearance from the Commissioner of Police/Superintendent of Police along with 2 Stamp size photos and contact **DGM(Security) – ARDC Division, Bangalore** for issuance of Security Pass.

Cont 2

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Ms. Soumya K V** and under the supervision of Internship Supervisor (Industry) **Ms. Vimaleswari G** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student
Student Name: Mr.Dhanrsh
USN: 1NH22EE036

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

SUBSTATION OPERATION & MAINTENANCE

By

Dhanya Shree S

1NH22EE040

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Dhanya Shree S, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE040 of New Horizon College of Engineering carried out his internship from 12/01/2026 to 12/05/2026 in the Karnataka Siemens Technology and Services Pvt. Ltd

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 06/05/2026

Signature of Mentor

Name of Mentor: Soumya K V

Designation: Assistant Professor

Official Email: soumyakv.nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "Programming Automation" was carried out by **Ms. Dhanya Shree S (1NH22EE040)**, a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Soumya K V	**Dr. S Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kasavanahalli, Carmelaram Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. DR. S. KANITHAN	12/05

SIEMENS

Siemens Technology and Services Pvt. Ltd.

Name	Priyanka Kundu
Department	People and Organization
E-mail	priyanka.kundu.ext@siemens.com
Date	10 December 2025

Dhanya Shree S
New Horizon College of Engineering
Bangalore, Karnataka

Internship Offer

Dear **Dhanya**,

We are pleased to accept you as an intern for the period starting from **12th January 2026 to 26th June 2026.** You will undergo internship in **Bangalore** in the **Global Business Services** business unit of Siemens Technology and Services Pvt. Ltd. **Bangalore.**

The address and contact details of our organization are as follows:

Siemens Technology and Services Pvt. Ltd.
RGA Techpark, 31/1, Sarjapura Main Road,Bangalore, Karnataka 560 035.

During this period of internship, we shall pay you Rs. **15000** p.m., monthly compensation.

Subject to your acceptance, your assigned project and responsibilities may necessitate visits to the office campus, in parallel with the continuation of your project alongside your academic commitments. The frequency of these visits will be determined by the reporting manager based on business requirements and will be in effect for the duration of the internship.

In case you need any further information, please feel free to contact us.

Yours faithfully,

For **Siemens Technology and Services Pvt. Ltd.**

Krishnaswamy Rajeshwari
Digitally signed by Krishnaswamy Rajeshwari
DN: cn=Krishnaswamy Rajeshwari, c=DE, o=Siemens, email=rajeshwari.krishnaswamy@siemens.com
Date: 2025.12.17 11:07:48 +05'30'

Rajeshwari Krishnaswamy
General Manager – People & Organization

Accepted By:
Dhanya Shree S: Dhanya
Date: 17-12-2025

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mrs. Soumya K V and under the supervision of Internship Supervisor (Industry) Mrs. Pushkar Sirdeshpande, submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Dhanya Shree S

USN: 1NH22EE040

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

SUBSTATION MAINTENANCE

By

Dinakara K L

1NH22EE041

Department of Electrical and Electronics Engineering

AY: 2025-2026

Scanned with OKEN Scanner

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Dinakara K L, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE041 of New Horizon College of Engineering carried out his internship from 12/01/2026 to 30/04/2026 in the Karnataka Power Transmission Corporation Limited.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 85 marks out of 100 marks is awarded.

Date : 06/05/2026

Signature of Mentor

Name of Mentor : Soumya K V

Designation : Assistant Professor

Official Email : soumyakv.nhce@newhorizonindia.edu

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled " **SUBSTATION MAINTENANCE** " was carried out by **Mr. Dinakara K L (1NH22EE041),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Soumya K V	**Dr. S Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103 Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD KUMAR S	
2 DR. S.KANITHAN	12/12

Scanned with OKEN Scanner

ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಪ್ರಸರಣ ನಿಗಮ ನಿಯಮಿತ

ನಿಗಮದ ಗುರುತಿನ ಸಂಖ್ಯೆ (ಸಿ.ಐ.ಎನ್): U40109KA1999SGC025521

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ, ವೈಟ್‌ಫೀಲ್ಡ್ ರಸ್ತೆ, ಹೂಡಿ ಬೆಂಗಳೂರು-560 048

ದೂರವಾಣಿ ಸಂಖ್ಯೆ : 080-28540666 ಅಂತರ್ಜಾಲ: https://kptcl.karnataka.gov.in

ಇ-ಮೇಲ್ ವಿಳಾಸ: kptchsptbsr@gmail.com

ಸಂಖ್ಯೆ: ಕವಿಪ್ರನಿನಿ/ಬಿ75/67320/2025-26 ದಿನಾಂಕ: 30/12/2025

ಅಧಿಕೃತ ಜ್ಞಾಪನಾ ಪತ್ರ

ವಿಷಯ: "Substation Maintenance" ವಿಷಯದ ಕುರಿತಂತೆ ಕವಿಪ್ರನಿನಿ ಯಲ್ಲಿ ತರಬೇತಿಯನ್ನು ಮಾಡಲು ಅನುಮೋದನೆಯನ್ನು ನೀಡುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು ರವರ ಪತ್ರ ದಿನಾಂಕ: 20.12.2025

.....

ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು, ಇಲ್ಲಿ ಬಿ.ಇ (೩ ಈ ೨) ಪದವಿಯಲ್ಲಿ ವ್ಯಾಸಂಗ ಮಾಡುತ್ತಿರುವ, ಈ ಕೆಳಕಂಡ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ, ಶ್ರೀಮತಿ ರಾಜೇಶ್ವರಿ ಕೆ, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), ನೋಡಲ್ ಅಧಿಕಾರಿ, 220ಕವಿ ಸ್ಟೇಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಟಿ.ಗೊಲ್ಲಹಳ್ಳಿ, ಕೆ.ಜಿ.ಎಫ್ ರವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ "Substation Maintenance" ಎಂಬ ವಿಷಯದ ಕುರಿತಂತೆ, ದಿನಾಂಕ:12.01.2026 ರಿಂದ 13.04.2026 ರವರೆಗೆ ತರಬೇತಿಯನ್ನು ಪಡೆಯಲು ಈ ಕೆಳಗಿನ ಷರತ್ತುಗಳಿಗೆ ಒಳಪಟ್ಟಂತೆ ಅನುಮೋದನೆಯನ್ನು ನೀಡಲಾಗಿದೆ.

- ಸದರಿ ತರಬೇತಿಗಳು ಯಾವುದೇ ರೀತಿಯಲ್ಲೂ ಕವಿಪ್ರನಿನಿಯ ನಿಯಮಿತ ಕರ್ತವ್ಯಗಳನ್ನು ಅಡ್ಡಿಪಡಿಸದಾರದು.
- ತರಬೇತಿ ಪಡೆದ ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳು, ತರಬೇತಿಯು ಮುಗಿದ ದಿನಾಂಕದಿಂದ ಒಂದು ತಿಂಗಳೊಳಗೆ ತರಬೇತಿಯ ಮುಕ್ತಾಯ ವರದಿಯನ್ನು ಕಾಲೇಜಿನ ಅಂತರಿಕ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ, ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಹಿಯನ್ನು ಒಳಗೊಂಡಿರತಕ್ಕದ್ದು ಮತ್ತು ಕವಿಪ್ರನಿನಿಯ ಒಗುತ 'ಎ' ನಮೂನೆಯಲ್ಲಿ ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರು ಸಹಿ ಮಾಡಿದ ತರಬೇತಿಯ ಪರಿಶೀಲನಾ ಮತ್ತು ಪೂರ್ಣಗೊಂಡ ದೃಢೀಕರಣ ಪತ್ರವನ್ನು ಈ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸಿದ ನಂತರ, ಸಂಬಂಧಪಟ್ಟ ಕಾಲೇಜಿಗೆ ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ತರಬೇತಿಯ ಪೂರ್ಣಗೊಂಡ ಬಗ್ಗೆ, ಈ ಕಛೇರಿಯಿಂದ ಪ್ರಮಾಣ ಪತ್ರವನ್ನು ನೀಡಲಾಗುವುದು

ಕ್ರಮ ಸಂ	ವಿದ್ಯಾರ್ಥಿಗಳ ಹೆಸರು	ಯು.ಎಸ್.ಎನ್/ನೋಂದಣಿ ಸಂಖ್ಯೆ
1	ವಿನಕರ ಕೆ ವಿಲ್	1NH22EE041
2	ಗೌತಮ್ ರಾಜ್ ಎಂ ಎಸ್	1NH22EE049

30/12/2025

AC ಆಡಳಿತಾಧಿಕಾರಿ

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ,

ಕವಿಪ್ರನಿನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು.

ಪತ್ರಿಗಳು:

1. ಶ್ರೀಮತಿ ರಾಜೇಶ್ವರಿ ಕೆ, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), ನೋಡಲ್ ಅಧಿಕಾರಿ, 220ಕವಿ ಸ್ಟೇಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಟಿ.ಗೊಲ್ಲಹಳ್ಳಿ, ಕೆ.ಜಿ.ಎಫ್.
2. ಮುಖ್ಯಸ್ಥರು, ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು.
3. ಸಂಬಂಧಪಟ್ಟ ವಿದ್ಯಾರ್ಥಿ/ ಸ.ಕಾ.ನಿ.ಇಂ(ವಿ)-2/ ಕ.ಪ್ರ./ ಮು.ಕ

Scanned with OKEN Scanner

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Soumya K V and under the supervision of Internship Supervisor (Industry) Ms. Rajeshwari K, submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name : Dinakara K L

USN : 1NH22EE041

Scanned with OKEN Scanner

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

HINDUSTAN AERONAUTICS LIMITED (HAL)

By

DIVYASREE P

1NH22EE043

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. DIVYASREE P Department of Electrical and Electronics Engineering bearing USN: 1NH22EE043 of New Horizon College of Engineering carried out his internship from 27/1/2026 to 27/5/2026 in the HAL.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 76 marks out of 100 marks is awarded.

Date: 27/5/26

Signature of Mentor

Name of Mentor: Anitha A

Designation: Sr. Assisstant Professor

Official Email: anithaa@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "HAL(Hindustan Aeronautics Limited)" was carried out by **Ms. DIVYASREE P (1NH22EE043)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Anitha A	Dr. Sujitha S	**Dr. Manjunatha**
Sr. Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaduvathanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. VINOD KUMAR S 12/8
2. DR. S. KANITHAN 12/08

ವಿಮಾನ ವಿಭಾಗ / एयरक्राफ्ट प्रभाग / AIRCRAFT DIVISION
ಬೆಂಗಳೂರು ಸಂಕೀರ್ಣ / बेंगलूरु कॉम्प्लेक्स / BANGALORE COMPLEX
ಹಿಂದೂಸ್ಥಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

ಅಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ ೧೭೮೮, ಬೆಂಗಳೂರು-೫೬೦೦೧೭, ಭಾರತ
पोस्ट बैग सं 1788, बेंगलूरु - 560017, भारत
Post Bag No. 1788, Bengaluru - 560017, India
Ph. : 91 - 80 - 2231 1741
Fax : 91 - 80 - 2231 5188

January 23rd, 2026

A/HR/507/409/2026

The HoD,
Department of Electrical & Electronics Engg,
New Horizon College of Engineering,
Bangalore-560 103.

Sir / Madam,

Sub: Permission for Internship

***

Reference is made to your letter dated 06.01.2026 on the subject.

2. We are pleased to inform you that the following students who are studying BE(E&E) in your College have been permitted to carry out the internship for a period of 4 Months in Aircraft Division on 'No Pay No Fee' basis. The training is to be completed by the students within this period:

Sl No	Name	USN
(i)	Deepthi R	1NH22EE033
(ii)	Divyasree P	1NH22EE043

3. The following guidelines are to be followed by the students:

a) The Students should not quote classified information that may come to their knowledge during the internship / project.

b) The student should get the report vetted by the guide before submitting to the College with a copy's the undersigned.

c) The student will have to make their own arrangements for stay and transportation to the factory and back.

d) The Company will not take any responsibility for any accident /incidents that may occur inside or outside the factory premises.

e) The Students are required to bring with them Police clearance from the Commissioner of Police / Superintendent of Police as per proforma enclosed along with 2 Stamp size photos, xerox of College id card, address proof (Aadhar card, Passport or DL), Character Certificate issued by the College Authorities and contact Chief Manager (Security) for issuance of Security Pass.

www.hal-india.co.in

f) Students are prohibited from disclosing their identity as HAL Intern or any association with HAL on Social Media platform.

g) Electronic Items such as Camera, Pendrive, Mobile Phones, Digital Dairy, Calculator, etc. are not permitted in the Factory premises.

h) Trainees may avail the Canteen Services on payment basis.

i) Duly filled Indemnity Bond in a Non-Judicial Stamp for Rs.50/- for each trainee individually is to be submitted to HR Department on the day of reporting. Students will not be allowed to undertake the Internship till submission of the bond.

j) A minimum of 80% attendance is mandatory for successful completion of the Internship.

k) Students have to strictly follow the prescribed Dress Code i.e (for Ladies Salwar Kameez with Duppatta only and for Gents Formal Trousers and Shirts for the duration of the Training/Internship/Project Work.

l) The trainees are required to report at HAL, Aircraft Division, Bangalore Complex on 27.01.2026 to 27.05.2026 at 08:00AM for commencement of Internship.

Yours faithfully,
for Hindustan Aeronautics Ltd,

V. Arun Kumar

(Arun Kumar V)
Senior Manager (HR)

Encl: As stated

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mrs. Anitha A and under the supervision of (Industry) Mr. Shivakanthi Gunna submitted as a part of the Internship (22EEE83) of B. E in Electrical And Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: DIVYASREE P

USN: 1NH22EE043

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

DESIGN AND AUTOMATION

By

G R Yashwanth

1NH22EE045

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. G R Yashwanth Department of Electrical and Electronics Engineering bearing USN: 1NH22EE045 of New Horizon College of Engineering carried out his internship from 12/01/26 to 26/06/26 in Siemens Technology and Services Pvt Ltd. On the basis of his regularity, punctuality, interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of __marks out of 100 marks is awarded.

Date: 11/5/26

11/5/26
Signature of Mentor

Name of Mentor: Dr. S. Sujitha

Designation: Prof. & HOD EEE

Official Email: hod_eee@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "Design and Automation" was carried out by **Mr. G R Yashwanth (1NH22EE045),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kasavanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. DR S. KANIGHAN	

Company Certificate

SIEMENS

Siemens Technology and Services Pvt. Ltd.

G R Yashwanth
New Horizon College of Engineering
Bangalore, Karnataka

Name	Priyanka Kundu
Department	People and Organization
E-mail	priyanka.kundu.ext@siemens.com
Date	10 December 2025

Internship Offer

Dear **Yashwanth**,

We are pleased to accept you as an intern for the period starting from **12th January 2026 to 26th June 2026.** You will undergo internship in **Chennai** in the **Global Business Services** business unit of Siemens Technology and Services Pvt. Ltd. **Chennai.**

The address and contact details of our organization are as follows:

Siemens Technology and Services Pvt. Ltd.
Global Infocity Park, Block C, 5th Floor, Plot No. 40, MGR Salai, Kandanchavadi, Perungudi, Chennai 600 096.

During this period of internship, we shall pay you Rs. **15000** p.m., monthly compensation.

Subject to your acceptance, your assigned project and responsibilities may necessitate visits to the office campus, in parallel with the continuation of your project alongside your academic commitments. The frequency of these visits will be determined by the reporting manager based on business requirements and will be in effect for the duration of the internship.

In case you need any further information, please feel free to contact us.

Yours faithfully,

For **Siemens Technology and Services Pvt. Ltd.**

Krishnaswamy Rajeshwari

Rajeshwari Krishnaswamy
General Manager – People & Organization

Accepted By:
G R Yashwanth:
Date:

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. S. Sujitha and under the supervision of Internship Supervisor (Industry), Ganapathy Arumugam S, submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

G.R.Yashwanth

Signature of the Student

Student Name: G R Yashwanth

USN: 1NH22EE045

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

BHAIRAVI INDUSTRIAL SAFETY SECURITY AND FIRE ENGINEERING

By

GOKUL M

1NH22EE047

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. GOKUL M Department of Electrical and Electronics Engineering bearing USN: 1NH22EE047 of New Horizon College of Engineering carried out his internship from 05/1/2026 to 30/4/2026 in the BISAFE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 11/05/2026

Ch. Kavitha
Signature of Mentor

Name of Mentor: Prof. Kavitha C H

Designation: Assistant Professor

Official Email: chenna.kavithaee@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "BISAFE" was carried out by **Mr. GOKUL M (1NH22EE047),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
MS. KAVITHA C H	**Dr. Sujitha S**	**Dr. Manjunatha**
Assistant professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD	
2 DR. S. KANITHAN	

Certificate

BISAFE

Bhairavi Chambers, Pathare Thube Nagar,
Line No 2, Kharadi Bypas, Pune – 411014
Email: info@bhairaviindustries.com
Mob: +91 8484030527 | +91 9845288000

Date: 02 / 05/ 2026

INTERNSHIP CERTIFICATE

This is to certify that Mr. GOKUL M (USN: INI22EE047) has successfully completed his 13 Weeks Internship Program with BISAFE Company.

During the **internship** period, he was deputed and workd at ZECO AIRCON PVT LTD.in association with **BISAFE**. from **05/01/2026 to 30/04/2026**.

During his tenure, he has demonstrated **good technical skills, discipline, and a strong willingness to learn**. He actively participaed in assigned tasks, projects, and responsibilities, and completed them to our satisfaction.

This internship was undertaken as part of the academic curriculum, and he has successfully completed the training under **BISAFE.**

We wish him all he best for future endeavors.

For BISAFE

BISAFE
BISAFE

HR ADMIN & Manager

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. KAVITHA C H and under the supervision of Internship Supervisor (Industry) Mr. DHANARAJ R submitted as a part of the Internship (22EEE83) of B. E. in Electrical And Electronics Engineering in New Horizon College of Engineering during the academic year 20252026.

Signature of the Student

Student Name: GOKUL M

USN: 1NH22EE047

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IoT-Based Smart Waste Management System

By

Gowri Manojkumar

1NH22EE048

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Gowri Manojkumar, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE048 of New Horizon College of Engineering carried out her internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 98 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr. Sangeetha C N

Designation: Senior Assistant Professor, Dept of EEE

Official Email: sangeethasreyas@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"IoT-Based Project Development"** was carried out by **Ms. Gowri Manojkumar (1NH22EE048),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Ms Sangeetha C N	**Dr. Sujitha S**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, [illegible] Post.
[illegible] - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	1.12.25
2. DR. S. KANITHAN	1/12/25

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Gowri Manojkumar
1NH22EE048
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Gowri Manojkumar,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

We wish you a productive and enriching internship experience.

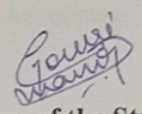
Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

New Horizon College of Engineering
Ring Road, Bangalore - 560103

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Sangeetha C N and under the supervision of Internship Supervisor (Industry) Dr. Sujin Jose submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025- 2026.



Signature of the Student

Student Name: Gowri Manojkumar

USN: 1NH22EE048

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

SUBSTATION MAINTENANCE

By

Gowtham raj M S

1NH22EE049

Department of Electrical and Electronics Engineering

AY: 2025-2026

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Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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Internship Completion Certificate

It is certified that Mr. Gowtham raj M S, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE049 of New Horizon College of Engineering carried out his internship from 12/01/2026 to 30/04/2026 in the Karnataka Power Transmission Corporation Limited.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date : 06/05/2026

Ch. Kavitha
Signature of Mentor

Name of Mentor : Kavitha C H

Designation : Assistant Professor

Official Email : chenna.kavithaee@gmail.com

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled " **SUBSTATION MAINTENANCE** " was carried out by **Mr. Gowtham raj M S (1NH22EE049),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Ch. Kavitha		Manjunatha
Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Kavitha C H	**Dr. S Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 VINOD CUMARS	
2 DR. S. KANITHAN	12/06

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ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಪ್ರಸರಣ ನಿಗಮ ನಿಯಮಿತ

ನಿಗಮದ ಗುರುತಿನ ಸಂಖ್ಯೆ (ಸಿ.ಐ.ಎನ್): ಯು40109ಕೆ2ಎ1999ಎಸ್‌ಜಿಸಿ025521

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ, ವೈಟ್‌ಫೀಲ್ಡ್ ರಸ್ತೆ, ಹೂಡಿ ಬೆಂಗಳೂರು-560 048

ದೂರವಾಣಿ ಸಂಖ್ಯೆ : 080-28540666 ಅಂತರ್ಜಾಲ: https://kptcl.karnataka.gov.in

ಇ-ಮೇಲ್ ವಿಳಾಸ: kptclsportsor@gmail.com

ಸಂಖ್ಯೆ: ಕವಿಪ್ರನಿನಿ/ಮಾ75/67320/2025-26 ದಿನಾಂಕ: 30/12/2025

ಅಧಿಕೃತ ಜ್ಞಾಪನಾ ಪತ್ರ

ವಿಷಯ: **"Substation Maintenance"** ವಿಷಯದ ಕುರಿತಂತೆ ಕ.ವಿ.ಪ್ರ.ನಿ.ನಿ ಯಲ್ಲಿ ತರಬೇತಿಯನ್ನು ಮಾಡಲು ಅನುಮೋದನೆಯನ್ನು ನೀಡುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು ರವರ ಪತ್ರ ದಿನಾಂಕ: 20.12.2025

****

ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು, ಇಲ್ಲಿ ಬಿ.ಇ (ಇ & ಇ) ಪದವಿಯಲ್ಲಿ ವ್ಯಾಸಂಗ ಮಾಡುತ್ತಿರುವ, ಈ ಕೆಳಕಂಡ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ, ಶ್ರೀಮತಿ ರಾಜೇಶ್ವರಿ ಕೆ, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), ನೋಡಲ್ ಅಧಿಕಾರಿ, 220ಕವಿ ಸ್ಟೇಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಟಿ.ಗೊಲ್ಲಹಳ್ಳಿ, ಕೆ.ಜಿ.ಎಫ್ ರವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ **"Substation Maintenance"** ಎಂಬ ವಿಷಯದ ಕುರಿತಂತೆ, ದಿನಾಂಕ:12.01.2026 ರಿಂದ 13.04.2026 ರವರೆಗೆ ತರಬೇತಿಯನ್ನು ಪಡೆಯಲು ಈ ಕೆಳಗಿನ ಪರತ್ತುಗಳಿಗೆ ಒಳಪಟ್ಟಂತೆ ಅನುಮೋದನೆಯನ್ನು ನೀಡಲಾಗಿದೆ.

- ಸದರಿ ತರಬೇತಿಗಳು ಯಾವುದೇ ರೀತಿಯಲ್ಲೂ ಕವಿಪ್ರನಿನಿಯ ನಿಯಮಿತ ಕರ್ತವ್ಯಗಳನ್ನು ಅಡ್ಡಿಪಡಿಸಬಾರದು.
- ತರಬೇತಿ ಪಡೆದ ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳು, ತರಬೇತಿಯು ಮುಗಿದ ದಿನಾಂಕದಿಂದ ಒಂದು ತಿಂಗಳಿನೊಳಗೆ ತರಬೇತಿಯ ಮುಕ್ತಾಯ ವರದಿಯನ್ನು ಕಾಲೇಜಿನ ಆಂತರಿಕ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ, ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರ ಸಹಿ ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಹಿಯನ್ನು ಒಳಗೊಂಡಿರತಕ್ಕದ್ದು ಮತ್ತು ಕವಿಪ್ರನಿನಿಯ ನಿಗದಿತ 'ಎ' ನಮೂನೆಯಲ್ಲಿ ಕವಿಪ್ರನಿನಿಯ ಮಾರ್ಗದರ್ಶಕರು ಸಹಿ ಮಾಡಿದ ತರಬೇತಿಯ ಪರಿಶೀಲನಾ ಮತ್ತು ಪೂರ್ಣಗೊಂಡ ದೃಢೀಕರಣ ಪತ್ರವನ್ನು ಈ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸಿದ ನಂತರ, ಸಂಬಂಧಪಟ್ಟ ಕಾಲೇಜಿಗೆ ವಿದ್ಯಾರ್ಥಿಯ/ ವಿದ್ಯಾರ್ಥಿಗಳ ತರಬೇತಿಯ ಪೂರ್ಣಗೊಂಡ ಬಗ್ಗೆ, ಈ ಕಛೇರಿಯಿಂದ ಪ್ರಮಾಣ ಪತ್ರವನ್ನು ನೀಡಲಾಗುವುದು

ಕ್ರಮ ಸಂ	ವಿದ್ಯಾರ್ಥಿಗಳ ಹೆಸರು	ಯು.ಎಸ್.ಎನ್/ನೋಂದಣಿ ಸಂಖ್ಯೆ
1	ವಿನಕರ ಕೆ ಎಲ್	1NH22EE041
2	ಗೌತಮ್ ರಾಜ್ ವಿ ಎಸ್	1NH22EE049

30/12/2025

ಇಇ ಆಡಳಿತಾಧಿಕಾರಿ

ಮಾನವ ಸಂಪನ್ಮೂಲ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ,

ಕ.ವಿ.ಪ್ರ.ನಿ.ನಿ, ಹೂಡಿ, ಬೆಂಗಳೂರು.

ಪತ್ರಿಗಳು:

1. ಶ್ರೀಮತಿ ರಾಜೇಶ್ವರಿ ಕೆ, ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ವಿ), ನೋಡಲ್ ಅಧಿಕಾರಿ, 220ಕವಿ ಸ್ಟೇಕರಣ ಕೇಂದ್ರ, ಕವಿಪ್ರನಿನಿ, ಟಿ.ಗೊಲ್ಲಹಳ್ಳಿ, ಕೆ.ಜಿ.ಎಫ್.
2. ಪ್ರಾಂಶುಪಾಲರು, ನ್ಯೂ ಹಾರಿಜಾನ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನಿಯರಿಂಗ್, ಬೆಂಗಳೂರು.
3. ಸಂಬಂಧಪಟ್ಟ ವಿದ್ಯಾರ್ಥಿ/ ಸ.ಕಾ.ನಿ.ಇಂ(ಪ)-2/ ಕ.ಪ್ರ/ ಮು.ಕ

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DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Kavitha C H and under the supervision of Internship Supervisor (Industry) Ms. Rajeshwari K, submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name : Gowtham raj M S

USN : 1NH22EE049

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INTERNSHIP REPORT (22EEE83)

ON

ANDROID APP DEVELOPMENT USING GEN AI

By

GOWTHAMI K

1NH22EE050

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Gowthami K Department of Electrical and Electronics Engineering bearing USN: 1NH23EE050 of New Horizon College of Engineering carried out her internship from 1/02/26 to 12/05/26 in the Mind matrix on the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Sangeetha. C.N

Designation: Professor

Official Email: sangeethasrevas@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**Android App development using GenAI**" was carried out by **Ms. Gowthami K (1NH22EE050),** a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Mrs Sangeetha CN	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore- 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with Date*
1. VINOD KUMARS	
2. DR. S. KANITHAN	12/05

MindMatrix

https://mindmatrix.io
+91 80 4924 5471
contact@clinf.com

Internship Offer Letter

To,
Gowthami K

Date : 8 December 2025

Subject: Internship Offer Letter – Android App Development using Gen AI

Dear Gowthami K,

Thank you for exploring internship opportunities with **MindMatrix.io**, a product of **CL Infotech Pvt. Ltd.**, through the **VTU Internship Portal**. We are pleased to offer you an internship with our organization.

This internship will run for **13 to 15 weeks** as per VTU Guidelines. The internship will provide you with hands-on exposure through guided tasks, structured modules, and practical projects on the **MindMatrix Platform (https://lms.mindmatrix.io)**.

During the internship, you will be engaged in product application development, supporting feature implementation, testing, preparing documentation, and cross-functional collaboration.These activities will require you to apply your technical knowledge and demonstrate your professional skills effectively.

All **internship policies and professional guidelines** will be provided in the **Internship Manual**, which will be shared with you on the day of program commencement.

As part of the process, you are required to:

- Print this offer letter and fill in the **Faculty Coordinator details** below.
- Obtain **HoD/Internship Coordinator signature with seal**.
- Email the scanned copy back to us within **one week** of receiving it.

For onboarding instructions, please refer to the attached **"Onboarding Steps"** document.
We look forward to your participation and wish you a productive internship.

Warm regards,
Tirumal Mutalikdesai
Program Coordinator, MindMatrix.io
contact@mindmatrix.io | 96115 46444

☐ **Authorization from Internship In-charge Faculty Or HoD**

Name : Sunil S.K Designation: SAP

Contact No.: 9742948894 Email: sunilmpel@gmail.com Dept: EEE

Sign and Seal of HoD: 8/1/2026

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Sangeetha CN** and under the supervision of Internship program coordination **Mr. Tirumal Mutalikdesai** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Gowthami.k

Signature of the Student

Student Name: Gowthami K

USN: 1NH22EE050

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC

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INTERNSHIP REPORT (22EEE83)

ON "IoT-Based Alcohol Detection System "

By

INDRA VARMA

1NH22EE052

Department of Electronics and Communication Engineering

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr Indra Varma Department of Electrical and Electronics Engineering bearing USN: 1NH22EE052 of New Horizon College of Engineering carried out his internship from 12th January 2026 to 13th May 2026 in the AICTE IDEA LAB New Horizon College of Engineering.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr. Agalya V

Designation: Prof. & Assoicate Head R & D

Official Email:

dr.agalya.nhce@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the internship work entitled "**IoT based Alcohol Detection System**" was carried out by **Mr. Indra Varma (1NH22EE052),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. Agalya V	**Dr. Sujitha S**	**Dr. Manjunatha**
Prof. & Associate Head R&D	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560 103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. DR. S. KANITHAN	1.12.25

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IDEA LAB OFFER LETTER

NEW HORIZON
COLLEGE OF ENGINEERING

AICTEIDEALab–InternshipOfferLetter

Date:09/01/2026

To

Indra Varma
1NH22EE052
ElectricalAndElectronicsEngineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTEIDEA Lab

Dear Indra Varma,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering,** under the domain of **Internet of Things (IoT).**

InternshipDetails:-InternshipTitle: IoT-BasedProjectDevelopment
- **Duration:**3 Months
-**Internship Period:**19/01/2026to 30/04/2026
- **Location:**AICTE IDEALab,NewHorizonCollegeofEngineering
- **Mode:**Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Uponsuccessfulcompletionandsubmissionofallrequireddeliverables,youwillbeawardedan **InternshipCompletionCertificate** fromtheAICTEIDEALab.

Kindlyconfirmyouracceptancecofthisofferbysubmittingtheattached**StudentAcceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

Wewishyouaproductiveandenrichinginternshipexperience. Warm

regards,

Dr.Manjunatha
ChiefMentor–AICTEIDEALab Principal
NewHorizonCollegeofEngineering
Bengaluru

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DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms Sangeetha C N and under the supervision of Internship Supervisor (Industry) Mr. Sai Charan as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Iqra Bashir

Signature of the Student

Student Name: Iqra Bashir

USN: 1NH22EE053

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

EMBEDDED SYSTEM & PRODUCT DEVELOPMENT

By

K JAGAN

1NH22EE055

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs. K JAGAN, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE055 of New Horizon College of Engineering carried out his/her internship from 1/7/2025 to 17/4/2026 in NISSI ENGINEERING SOLUTIONS PVT LTD., CHENNAI.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 78 marks out of 100 marks is awarded.

Date: 11/5/26

Signature of Mentor

Name of Mentor: Dr. S Sujitha

Designation: Prof. and HoD

Official Email: hod_eee@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department Of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**EMBEDDED SYSTEMS & PRODUCT DEVELOPMENT**" was carried out by **Mr. K JAGAN (1NH22EE055),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S Sujitha	**Dr. S Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubeesanahalli, Marathahalli Outer Ring Road, Varthur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1... VINOD KUMAR. S	... 12/05
2... DR... S. KANITHAN	... 12/05

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Company Certificate

NISSI

Nissi Engineering Solution Pvt. Ltd.
Plot no 4 & 5, Redhills Tiruvallur high road
Opp alamathi school, Alamathi,
Chennai 600 052.
India
CIN : U93000TN2013PTC092139

Phone : +91 44 2658 1583
Fax : +91 44 2658 2432
E-mail : nissi_engg@yahoo.com
Web : www.nissi.co.in

Date:20-04-2026

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. K. Jagan** (USN: 1NH22EE055) from New Horizon College of Engineering has successfully completed an internship program of 7 months and 15 days at our organization, from 01-07-2025 to 17-04-2026. During this period, he worked on the **Local SNTP Clock, Biometric and RFID Attendance System**, and **Mechanical Product Enclosure Design.**

As part of the project, he has learned Basics of Embedded systems and various sensor interfacing with IoT.

He was highly motivated and hardworking. He worked sincerely at his tasks and did a very good job.

We wish him great success in his future endeavors.

Sincerely,

(Ranjithikumar)
Project Manager

NISSI Engineering Solution Pvt. Ltd. Chennai

Sincerely,

(M.Nanthagopal)
RnD Manager

NISSI Engineering Solution Pvt. Ltd. Chennai

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

"EMBEDDED SYSTEMS AND IOT"

By

KALPANA CHAWLA S

1NH22EE056

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. KALPANA CHAWLA S, Department of Electrical and Electronics Engineering bearing USN: 1NH22EE056 of New Horizon College of Engineering carried out her internship from 10th Jan 2026 to 17th July 2026 in the SURE ProEd Family. On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 87 marks out of 100 marks is awarded.

Date:06/05/2026

Signature of Mentor

Name of Mentor: VEENA M HUNAGUND

Designation: Assistant Professor

Official Email: veena.mh_eee_nhce@newhorizonindia.

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**EMBEDDE SYSTEMS AND IOT**" was carried out by **Ms. KALPANA CHAWLA S(1NH22EE056),** a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
VEENA M HUNAGUND	**DR.SUJITHA**	**Dr. Manjunatha**
Assistant Professor	Prof. and HOD, EEE	Principal
Dept. of Electrical and Electronics Engineering	Dept. of Electrical and Electronics Engineering	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubeesanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR R S	
2. DR. S. KANITHAN	12/05

Company Certificate

SURE Trust - SKILL UPGRADATION FOR RURAL YOUTH EMPOWERMENT
Sreeguru Towers, Second Floor Gopuram Road, Opp. Union Bank of India
Puttaparthi. 515134 | +919440045717 / +917981538206 |
www.suretrustforruralyouth.com| Email: contact@suretrustforruralyouth.com

SURE Trust – AICTE Internship Offer Letter

Ms. Kalpana Chawla S
B.Tech Electrical and Electronics Engineering 4th year
New Horizon College of Engineering
Kadubeesanahalli, Bengaluru, Karnataka

Dear Kalpana Chawla S ,

SURE Trust is pleased to inform you that you are admitted as an Intern in the domain of "Embedded Systems & IOT" to work on industry-relevant projects for 6 months, starting from 10-01-2026. The management of SURE Trust has taken this decision after scrutinizing your technical skills in this domain. While there is no legal binding on either side in this contract, your commitment is taken as assured based on the words given by you. This internship requires you to work in complete coordination with the team, complete the assigned task by meeting the deadlines, and attend the weekly meetings mandatorily. You shall be reporting to SURE ProEd your mentor for your internship. It will be your responsibility to support the team in submitting the final report on project work completed in the required format and making it deployable. After completion of your internship, SURE Trust will give you an internship completion certificate after evaluating your performance. If this internship is acceptable to you kindly sign the letter and send it back for our records.

Ch. Radhakumari

Prof. Radhakumari Challa
Founder & Executive Director, SURE Trust

To
Ms. Kalpana Chawla S

9/1/26

9/1/2026
Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bengaluru Post
Bangalore - 560103, Karnataka

NGO Partner for TATA Group Registered on MCA Portal CS[illegible] Registered on Darpan Portal - AP/2022/[illegible]

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. VEENA M HUNAGUND (Assistant Prof) and under the supervision of Internship Supervisor (Industry) Ms. MEHAK MAJEED submitted as a part of the Internship (22EEE83) of B.E in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: KALPANA CHAWLA S

USN:1NH22EE056

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

DIGITAL MARKETING AND SEO

By

Kaushar Amin

1NH22EE057

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs.__Kaushar Amin_, Department of Electrical and Electronics Engineering, bearing USN: **1NH22EE057** of New Horizon College of Engineering carried out his/her internship from _2/2/2026_to 31/6/2026_ in the EDUTAINER (PAT TECHNOLOGIES PVT. LTD.)

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of __84__ marks out of 100 marks is awarded.

Date: 7

Sangeetha
Signature of Mentor

Name of Mentor: Sangeetha.C.N

Designation: Senior Asst. Professor

Official Email: sangeethasreyas@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "DIGITAL MARKETING AND SEO" was carried out by **Mr./ Ms. Kaushar Amin (1NH22EE057),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Sangeetha C.N	**Dr. S. Smitha**	**Dr. Manjunatha**
Sr. Asst. Prof.	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. Dr. S. KANITHAN	27/12/25

ADD Company Certificate here

PAT Technologies Private Limited

To,
Kaushar Amin

Date: 10/01/2026

Subject: Offer of Internship

Dear Kaushar Amin,

We are pleased to offer you the opportunity to join **Edutainer (PAT Technologies Pvt. Ltd.)** as an **Intern.** This internship is designed to provide you with hands-on experience, industry-relevant learning, and mentorship that will enhance your professional skills and career readiness.

Internship Details:

- **Internship Title:** Virtual Internship in **Digital Marketing and SEO Intern (Entry Level)**
- **Mode:** 100% Online / Remote
- **Duration:** 4 months
- **Month of joining:** January
- **Stipend:** Certification based
- **Working Hours:** Flexible

Roles & Responsibilities:

- Participate in virtual training sessions, live projects, and assignments.
- Collaborate with mentors and peers in project-based learning.
- Submit project work and reports within deadlines.
- Actively engage in discussions, reviews, and evaluations.

Benefits to Interns:

- **VTU Approved Internship Credits** (where applicable).
- Hands-on project exposure and industry mentorship.
- Internship Completion Certificate from **Edutainer.**
- Opportunity to build a strong professional portfolio.

PAT Technologies Private Limited
CIN: U51100HR2009PTC083365
Office: #525, Tower B-3 Spaze I-Tech Park, Sohna Road Gurgaon, Haryana, 122002
Website: www.edutainer.in, E-mail: info@edutainer.in

PAT Technologies Private Limited

We believe this internship will be an enriching step in your academic and professional journey.

We welcome you to Edutainer and look forward to your active participation.

Best Regards,
Team Edutainer

Mr. Shrawan Tiwari
Founder & CEO, Edutainer
info@edutainer.in | www.edutainer.in

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mrs. Sangeetha CN and under the supervision of Internship Supervisor (Industry) Mr. Bunty submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Kaushar Amin

USN: 1NH22EE057

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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INTERNSHIP REPORT (22EEE83)

On

Rooftop Solar Installation and Commissioning Intern at Solarsquare

By

KAVIN N

1NH22EE058

Department of Electrical and Electronics

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. **KAVIN N** Department of Electrical and Electronics bearing USN: **1NH22EE058** of New Horizon College of Engineering carried out his internship from 12/01/2026 to 05/05/2026 in SolarSquare Energy Pvt Ltd.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 96 marks out of 100 marks is awarded.

Date: 21/5/26

Signature of Mentor

Name of Mentor: Dr S. Sujitha

Designation: Professor and HoD

Official Email: dr.s.sujitha@gmail.com

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**ROOFTOP SOLAR INSTALLATION AND COMMISSIONING INTERN (PROJECT COORDINATOR)**" was carried out by **Mr. Kavin N (1NH22EE058),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. S. SUJITHA	**Dr. S. SUJITHA**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMARS	
2. DR. S. KANITHAN	12/05

Scanned by Camera Scanner

Date: 5th May 2026

To Whomsoever It May Concern,

We hereby certify that Kavin N (1NH22EE058), student of New Horizon College of Engineering, Bengaluru, pursuing B.E.(EEE) has completed internship at Solar Square Energy, Bengaluru from 12th Jan 2026 to 5th May 2026.

He was sincere and has showed interest in all works assigned to him. We wish him all the best for his future endeavours.

Warm regards,

Dhaval S M
State Operations Head
Solar Square Energy
+91 8762229950 | dhaval.m@solarsquare.in

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

DATA SCIENCE USING PYTHON

By

Keerthana R

1NH22EE060

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Keerthana R, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE060 of New Horizon College of Engineering carried out her internship from 09/02/2026 to 09/05/2026 in the KodNest.

On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 89 marks out of 100 marks is awarded.

VMH

Date: 06/05/2026

Signature of Mentor

Name of Mentor: Veena M Hunagund

Designation: Assistant Professor

Official Email: veena.mh_eee_nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"Data Science Using Python"** was carried out by **Ms. Keerthana R (1NH22EE060)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Veena M Hunagund	**Dr. Sujitha S**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD, EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1 ..... VINOD KUMARS .....

2 ..... DR. S. KANTHAN ..... 12/05 .....

COMPANY CERTIFICATE

CERTIFICATE OF

INTERNSHIP

KodNest

To *Keerthana R*

For Successfully Completing ***Data Science Internship - Kodnest*** Internship, also enriching their skills and expertise in Data Science Internship - Kodnest development.

Is presented on ***May 06, 2026,***

Akash Pandey
CEO, Founder

DPIIT nasscom ISO

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Veena M Hunagund and under the supervision of Internship Supervisor (Industry) Mr. Sandesh G submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Keerthana R

USN: 1NH22EE060

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

TECHNICAL SUPPORT PROFESSIONAL INTERN

By

KODE KAVYASRI

1NH22EE061

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Kode Kavyasri, Department of Electrical And Electronics Engineering bearing USN: 1NH22EE061 of New Horizon College of Engineering carried out her internship from 30 January 2026 to 29 July 2026 in IBM ISDL.

On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 07/05/2026

7/5/26

Signature of Mentor

Name of Mentor: Dr Vinoth Kumar K

Designation: Professor and Associate, Head R&D, Dept of EEE

Official Email: kvinoth_kumar84@yahoo.in

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"TECHNICAL SUPPORT PROFESSIONAL INTERN"** was carried out by **Ms. Kode Kavyasri (1NH22EE061)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Head of the Department Signature of the HOD Department of Electrical and Electronics Engineering New Horizon College of Engineering Ring Road, Kadubisanahalli, Bellandur Post. Bangalore-560103, Karnataka, India	**Signature of the Principal**
Dr. Vinoth Kumar K	Dr. S Sughna	**Dr. Manjunatha**
Prof and Associate, Head-R&D	Prof and HOD, EEE	Principal
Dept. of EEE	Dept. Of EEE	NHCE

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMARS	
2. Dr. S. KANITHAN	

OFFER LETTER

DocuSign Envelope ID: 41D82788-6998-4836-ADDB-B997BEF5EC91

13-Jan-2026

IBM India Private Limited
Manyata Embassy Business Park,
G2 Block, Nagwara Outer Ring Road,
Bangalore - 560045, India.

https://www.ibm.com/in-en/careers

Dear Kavyasri K

We are pleased to offer you a permission letter for undergoing internship training with us from 30-Jan-2026 to 29-Jul-2026. During your internship training, you will be working on an assignment at BANGALORE and paid a stipend of INR 30,000/- per month. You will report to PRADEEP KARUVEETIL in BANGALORE. At the end of the internship, you will submit a copy of your assignment to the Company. You may contact your manager for further guidance on your assignment.

This is a temporary internship offer which may be terminated at any time by you or IBM and does not imply any commitment by IBM to regular employment.

Information pertaining to IBM operations and intellectual property is confidential as detailed in Annexure B. You will also be bound by more specific non-disclosure agreements on sensitive issues based on business requirements. You are also expected to adhere to all applicable rules and regulation and Business Conduct Guidelines of IBM and act in accordance with the values and principles of the Company.

Acceptance and Commencement:

To confirm your acceptance of this offer of internship, you are required to:

- Please confirm your acceptance no later than five (5) business days from the date this offer letter is released to you by following the instructions in Docusign. If you do not accept the offer within that time frame, the offer will expire and become null and void unless IBM extends the acceptance date at its sole discretion.
- Any change of joining date must be sent to Internshiring@in.ibm.com at least 5 days prior to your original joining date. The new joining date must be a Tuesday, Wednesday, or Thursday and should be no later than 5 days from the joining date specified above.

Upon your acceptance of this employment contract, your appointment will be effective from the agreed DOJ.

On your first day of employment, please report at 8:45 am to the Main Lobby located at IBM India Pvt Ltd, Embassy Golf Link, Block C, 1st Floor, Training Room - Fountain Head and Phoenix, Koramangala, Intermediate Ring Road, Bangalore – 560071.

Please bring the required items to the onboarding venue on your start date. Download the new hire guide now - ibm.biz/newhireguide, for step-by-step instructions and everything you need to prepare for a smooth transition.

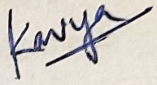
1. Aadhar card original
2. Passport original
3. PAN card original
4. Valid Indian Work Permit - If you are a foreign passport holder, please provide a valid work permit. Indian Origin candidates must provide copy of their OCI card issued by the Govt. of India.

Please feel free to contact us via internshiring@in.ibm.com for any queries regarding this internship offer.

You will also be covered under the group personal accident policy. This is a company paid benefit which will provide accident coverage against permanent total disability, permanent partial disability and dismemberment for upto INR 500,000/-.

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Vinoth Kumar K and under the supervision of Internship Supervisor (Industry) Mr. Pradeep Karuveetil submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.



Signature of the Student

Student Name: Kode Kavyasri

USN: 1NH22EE061

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

"A STUDY ON MANUFACTURING, PRODUCTION PROCESS AND QUALITY ANALYSIS"

By

Kruthika M

1NH22EE062

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs. Kruthika M Department of Electrical And Electronics Engineering bearing USN: 1NH22EE062 of New Horizon College of Engineering carried out his/her internship from 9/01/2026 to 10/04/2026 in the Karnataka Soaps And Detergents ltd.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date:06/05/2026

Signature of Mentor

Name of Mentor: Dr. B. Gunapriya

Designation: Professor

Official Email: gunapriya1978@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical And Electrical Engineering

CERTIFICATE

Certified that the internship work entitled "A STUDY ON MANUFACTURING ,PRODUCTION PROCESS AND QUALITY ANALYSIS" was carried out by **Mr./ Ms. Kruthika M (1NH22EE062),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical And Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. B. Gunapriya	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor	Prof and HOD-EEE	Principal
Dept. of Electrical and Electronics Engineering	Dept. of Electrical and Electronics Engineering	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	12/05
2. DR. S. KANITHAN	12/05

CERTIFICATE:

Mysore Sandal
The Fragrance of India

CERTIFICATE OF INTERNSHIP

This is to Certify that

Kruthika M

from **New Horizon College of Engineering**

Branch: **Electrical and Electronics Engineering**

has successfully completed an Internship for the duration of **90 days** *at*

Karnataka Soaps and Detergents Ltd

on the topic:

"STUDY ON MANUFACTURING, PRODUCTION PROCESS & QUALITY ANALYSIS"

S. Ramesh
General Manager
Karnataka Soaps and Detergents Ltd

KARNATAKA SOAPS AND DETERGENTS LTD
GOVERNMENT OF KARNATAKA

Date: 20th April 2026

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Dr. B. Gunapriya** and under the supervision of Internship program coordination **Dr. Chidanand N** submitted as a part of the Internship **(22EE83)** of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Kruthika M

Signature of the Student

Student Name: Kruthika M

USN: 1NH22EE062

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

SOFTWARE PRODUCT DEVELOPMENT AND MAINTENANCE

By

Lalith Narayan

1NH22EE063

Department of Electrical and Electronics Engineering

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Lalith Narayan Department of Electrical and Electronics Engineering bearing USN: 1NH22EE063 of New Horizon College of Engineering carried out his internship from 06/10/25 to 06/04/26 in Temenos India Pvt Ltd. On the basis of his regularity, punctuality, interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 98 marks out of 100 marks is awarded.

Date: 11/5/26

Signature of Mentor

Name of Mentor: Dr. S. Sujitha

Designation: Prof. & HOD EEE

Official Email: hod_eee@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "Software Product Development and Maintenance" was carried out by **Mr. Lalith Narayan (1NH22EE063),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	12/05
2. Dr. S. KANITHAN	12/05

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Company Certificate

temenos

Leading Banking Forward

Temenos India Private Limited
IBC Knowledge Park, Block D 10th & 11th Floor,
4/1, Bannergatta Road, Near Dairy Circle
Bangalore 560 029 India
Tel: +91 (0) 80 4137 6000

10 Sep 2025

Invite for Internship

Dear Lalith Narayan,

No 12, Lakshmi Nivas, 13Th Cross Block 2,
Akshayanagar, Anappa Circle,
Ramamurthy Nagar, Bangalore North,
Bangalore 560016.

It gives us immense pleasure in inviting you for Internship training with Temenos India Private Limited, commencing on 06 Oct 2025 and concluding on 06 Apr 2026, in response to the recommendation placed before the organization by your institution. Internship training is one of the ways in which Temenos contributes to the cause of professional education by providing students an opportunity to receive on the job training with us.

1. **Stipend**: You will be paid INR 25,000 per month as a stipend during internship training.

2. **Date of Joining**: 06 Oct 2025

3. **Termination**: Fifteen Days' notice must be given should either party wish to terminate/discontinue the internship program. However, any misdemeanor or misconduction the part of the Intern will justify immediate dismissal without notice.

4. **Training Hours**: 8 hours per day, 5 days per week (Mon to Fri). Working hours may be subject to change following business requirements.

5. **Place of work**: IBC Knowledge Park, Block D, 10th & 11th Floor Bangalore Karnataka - 560029. You may however be required to take up assignments with subsidiaries of the group and/or our clients, which may include travel within India.

6. **Vacation**: You will be eligible for one day leave per month during the internship. Apart from this you will also be entitled to statutory public holidays announced by Temenos India.

7. **Confidentiality/ Non-Disclosure**: All matters, information or work undertaken by you in the course of your employment are confidential and you shall not release to third parties or make known any such matters, information or work without the prior written consent of the company.

8. **Training**: You will be provided adequate classroom training and the duration of training would be purely based on the business requirement. During the Internship period, if your performance is found to be unsatisfactory or if it does not meet the prescribed criteria, your training can be terminated by the Company with one week notice. .

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC

Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

INDUSTRIAL ELECTRICAL SYSTEMS AND MAINTAINANCE INTERN

By

MAHENDRA KUMAR S

1NH22EE064

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Mahendra Kumar S from the Department of Electrical and Electronics Engineering bearing USN: 1NH22EE064 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 27/4/2026 in Mayur Yarn and Thread PVT. LTD.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 06-05-2026

D. Satishkumar

Signature of Mentor

Name of Mentor: Mr. SATISH KUMAR D

Designation: Senior Assistant Professor

Official Email: d.satishkumar.d@gmail.com

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**INDUSTRIAL ELECTRICAL SYSTEMS AND MAINTENANCE INTERN**" was carried out by **Mr. MAHENDRA KUMAR S (1NH22EE064),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Mr. SATISH KUMAR D	**Dr. S. SUJITHA**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR	
2. Dr. S. KANITHAN	12/05

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Company Certificate

MAYUR YARN & THREAD PVT. LTD.

No. 1, M. H. Bhavan, 1st 'B' Cross, Sudham Nagar, Near Telungu Chettiar Kalyana Mantapam, Bangalore - 27.
Phone : 22953207, 08, 09, 10, 11 E-mail : mayurthread@yahoo.com, apexpoly@gmail.com

Ref : MYT/26-27/152

Date : 05-05-2026

CERTIFICATE OF INTERNSHIP

This is to certify that Mahendra Kumar S (USN: 1NH22EE064) student of New Horizon College of Engineering pursuing B.E. in Electrical & Electronics has completed the internship at Mayur Yarn & Thread Pvt Ltd from 12th January 2026 to 27th April 2026, as prescribed by Visvesvaraya Technological University, Belagavi, Karnataka as a part of B.E. eight semester curriculum.

During the period of his internship program he worked well as a part of a team and was sincere on his assignments and his performance was excellent.

Note: The Internship Program Carried out on "Industrial Electrical Systems and Maintenance"

Thanking You

Yours Sincerely

For MAYUR YARN & THREAD PVT. LTD.

Director / Authorised Signatory

Mayur Yarn & Thread Pvt Ltd

DECLARATION

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NEW HORIZON
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INTERNSHIP REPORT (22EEE83)

ON

ELECTRICAL INTERN

By

MEENAKSHI J CHODAVARAPU

1NH22EE065

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Meenakshi J Chodavarapu, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE065 of New Horizon College of Engineering carried out his internship from 02/01/2026 to 31/03/2026 in the HAL

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 7.5.26

Signature of Mentor

Name of Mentor: Mr. Vinod Kumar S

Designation: Senior Assistant Professor

Official Email: vinodks@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

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Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled **"ELECTRICAL INTERN "** was carried out by **Ms. Meenakshi J Chodavarapu, (1NH22EE065),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in ELECTRICAL AND ELECTRONICS** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Mr. Vinod Kumar S	**Dr. S. Sujitha**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaadubisanahalli, Bellandur Post-
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners

Signature with date

1. VINOD KUMAR S

2. DR S. KANNAN 12/08

मिशन एवं युद्धक प्रणाली अनुसंधान एवं अभिकल्प केंद्र
MISSION & COMBAT SYSTEM RESEARCH & DESIGN CENTRE
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

HAL
A Maharatna CPSE

Marathahalli Post, Bengaluru - 560037, India
Ph.: 91 - 80 - 22322149, 22321490
Fax: 91 - 80 - 22313185

No. D/MCSRDC/HR/Internship/0190/2026 Date: Mar 31st 2026

CERTIFICATE

This is to certify that the following student of **BE (EEE), VIII SEMESTER** from **M/s New Horizon College of Engineering, Bangalore,** has completed her **"INTERNSHIP"** at MCSRDC, Design Complex, HAL, Bangalore from **02.01.2026** to **31.03.2026** on "no-pay-no-fee-basis".

Ms. MEENAKSHI J CHODAVARAPU (USN No. 1NH22EE065)

The punctuality, conduct, behavior and overall progress of the student were **EXCELLENT** during the training.

31/03/26

(IYER SUSHMITHA RAMESH)
Manager (HR)

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Mr. Vinod Kumar S** and under the supervision of Internship Supervisor (Industry) **Ms. Vimaleswari G** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Meenakshi

Signature of the Student
Student Name: Ms. Meenakshi J Chodavarapu
USN: 1NH22EE065

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

CORPORATE AFFAIRS INTERN

By

MOHAN KUMAR M

1NH22EE067

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. MOHAN KUMAR M, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE067 of New Horizon College of Engineering carried out his internship from 25/09/2025 to 31/03/2026 in the Sun Mobility Pvt. Ltd., Bangalore.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 82 marks out of 100 marks is awarded.

Date: 06-05-2026

D. Satish

Signature of Mentor

Name of Mentor: Mr. SATISH KUMAR D

Designation: Senior Assistant Professor

Official Email: d.satishkumar.d@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled "**CORPORATE AFFAIRS INTERN**"was carried out by **Mr. MOHAN KUMAR M (1NH22EE067),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in ELECTRICAL AND ELECTRONICS** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Mr. SATISH KUMAR D	**Dr. S. SUJITHA**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners

Signature with date

1. VINOD KUMARS

2. Dr. S. KANITHAN

ADD Company Certificate here

SUN MOBILITY

22nd September 2025

Sub: Internship Letter

Dear M Mohan Kumar,

We congratulate you on being selected for an internship with SUN Mobility based in Bangalore. Your training is scheduled to start effective September 25th, 2025, up to March 31st , 2026.

As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge.

The project details and technical platform will be shared by your Training Guide.

You will be paid a monthly stipend of INR 15,000/- (Rupees Fifteen Thousand only).

The Internship period will entail dealing with important and sensitive information, records, and such other matters of the company. You will, therefore, be required to sign a "Confidentiality and Non-Disclosure Agreement" of our company, which will be given to you on the first day of your internship.

We look forward to having you with us.

Yours Truly,

Shreya Gupta
Head - Human Resources

25, 1st Cross, 2nd Main road, Doddanekundi Industrial Area 2, Phase 1, Doddanekundi, Mahadevapura Post, Bangalore - 560048
Phone : +9180 43026210 / 8913 www.sunmobility.com CIN: U35100DL2016PTC309225

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Mr. SATISH KUMAR D** and under the supervision of Internship Supervisor (Industry) **Mr. OSAMA ANSARI** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: MOHAN KUMAR M

USN: 1NH22EE067

NEW HORIZON
COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

SUBSTATION OPERATION & MAINTENANCE

By

MUDAVATH VAMSIKRISHNA NAIK

1NH22EE069

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Mudavath Vamsikrishna Naik, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE069 of New Horizon College of Engineering carried out his internship from 12/01/2026 to 30/04/2026 in the Andhra Pradesh Southern Power Distribution Company Limited.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date : 30/04/2026

Signature of Mentor

Name of Mentor : Dr. R Mohan Das

Designation : Associate Professor

Official Email : mohandas@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**SUBSTATION OPERATION & MAINTENANCE** " was carried out by **Mr. Mudavath Vamsikrishna Naik (1NH22EE069)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. R Mohan Das	**Dr. S Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post

SEE Viva

Name of the examiners *Signature with date*

1 ..... NINOD .....

2 ..... Dr S.KANITHAN .....

Internship Certificate

ANDHRA PRADESH SOUTHERN POWER DISTRIBUTION COMPANY LIMITED

LT&CT METERS SUB-DIVISION :: PUTTAPARTHI

CERTIFICATE

This is to certify that M VAMSIKRISHNA NAIK, S/O. M. Rambhoji Naik .Pursuing B .Tech (VIII semester) in ELECTRICAL AND ELECTRONICS ENGINEERING (USN: 1NH22EE069) New Horizon College of Engineering Bengaluru, has successfully completed Industrial Training in sub-division (33/11 kv SS) Puttaparthi ,Sathya Sai district, from 12-01-2026 TO 30-04-2026. During the training period ,his conduct and performances are satisfactory.

Assistant Executive Engineer,
Operations , APSPDCL
Puttaparthi (urban).

Deputy Executive Engineer,
Operations , APSPDCL
Puttaparthi.

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. R Mohan Das and under the supervision of Internship Supervisor (Industry) Mr. Sainath Gowd, submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name : Mudavath Vamsikrishna Naik

USN : 1NH22EE069

NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IT INFRASTRUCTURE AND OPERATIONS

By

MUHAMMED SINAN K V

1NH22EE070

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Muhammed Sinan K V, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE070 of New Horizon College of Engineering carried out his/her internship from 12/1/2026 to 06/07/2026 in the IT Infrastructure and Operations, Netradyne.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 86 marks out of 100 marks is awarded.

Date: 7/5/26

Signature of Mentor

Name of Mentor: Dr. Vinoth Kumar K

Designation: Associate Head R&D and Professor Dept. of EEE

Official Email: dr.vinothkumar@newhorizonindia.edu

NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**IT Infrastructure and Operations**" was carried out by **Mr. Muhammed Sinan K V (1NH22EE070),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Vinoth Kumar K	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor & Associate Head - R&D	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaudisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	12/5
2. DR. S. KANITHAN	12/05

ADD Company Certificate here

netradyne

Date 24-November-25

Name: **Muhammed Sinan K V**
Address: #50/8 4th Cross Venkatapura Koramangala Bengaluru-560034

Subject: Internship Offer Letter

Dear **Muhammed Sinan,**

We at Netradyne Technology India Pvt Limited (the 'Company') are pleased to offer you an internship offer. You will be reporting to Senior Director – Engineering or to any other official as decided by Company. Your internship period will be effective from **12-January-26** until **06-July-26**.

The terms and conditions of your internship offer with the Company shall be as follows:

- **Compensation:** You will be paid a stipend of **INR 20,000/- (Twenty Thousand Rupees Only)** payable monthly. The company shall pay you the monthly stipend by way of separate cheque or wire transfer to your bank account, upon completion of each month.
- **Withholding Taxes:** There will be no withholding or deduction of any taxes from your monthly stipend.
- **Professional Fulfillments:** During the internship period, you agree that you will not engage in any other employment, consulting or other business activity without the written consent of the Company. While you are rendering services to the Company, you also will not assist any person or entity in competing with the Company, in preparing to compete with the Company or in hiring any employees or consultants of the Company
- **Entire Agreement:** This letter supersedes and replaces any prior understandings or agreements, whether oral or written, between you and the Company regarding the subject matter described in this letter.

If the terms and conditions of this Internship offer letter are acceptable to you, please indicate your acceptance by signing and dating this letter and returning it to us. By signing this letter, you confirm to the Company that you are under no contractual or other legal obligations that would prohibit you from performing your duties for the Company.

We look forward to having you join as an intern at the earliest.

Very Truly Yours,

DocuSigned by:
Pooja
EC84067407664F3...

Pooja Madappa
Senior Vice President – Global HR

I have read the above terms and conditions and accept this internship offer to start from 12-JANUARY-26

MUHAMMED SINAN.K.V M.D Sinan

Name and Signature

Dated 12-JANUARY-26

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Vinoth Kumar K and under the supervision of Internship Supervisor (Industry) Mr. Priyesh Parashar submitted as a part of the Internship (22EEE83) of B.E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

M. Sinan

Signature of the Student

Student Name: Muhammed Sinan K V

USN: 1NH22EE070

NEW HORIZON
COLLEGE OF ENGINEERING

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INTERNSHIP REPORT (22EEE83)

ON

DATA ANALYST INTERN

By

NAYAN N M

1NH22EE071

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

Scanned by Camera Scanner

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Nayan N M, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE071 of New Horizon College of Engineering carried out his internship from 1/1/2026 to 30/4/2026 in the Elevate Labs Pvt ltd.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 98 marks out of 100 marks is awarded.

Date 8/5/26

8/5/26
Signature of Mentor

Name of Mentor: Dr. Vinoth Kumar K

Designation: Associate Head R&D and Professor Dept. of EEE

Official Email: dr.vinothkumar@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**DATA ANALYST INTERN**"was carried out by **Mr. Nayan N M (1NH22EE071),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Vinoth Kumar K	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor & Associate Head - R&D	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560 103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. VINOD KUMAR S	
2. Dr. S. KANITHAN	12/05

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

Efficiency Monitoring of Solar Photovoltaic Systems Using VLSI

By

NISHANT GUPTA

1NH22EE072

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Nishant Gupta Department of Electrical and Electronics Engineering bearing USN: 1NH22EE072 of New Horizon College of Engineering carried out his internship from 15/01/26 to 30/04/26 in the Mavericks Solar Solutions Pvt Ltd On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 96 marks out of 100 marks is awarded.

Date: 11/5/26

11/5/26
Signature of Mentor

Name of Mentor: Dr. S. SUJITHA

Designation: Prof. and HOD of Dept. of EEE

Official Email: hod_eee@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**Efficiency Monitoring of Solar photovoltaic system using VLSI**" was carried out by **Mr. Nishant Gupta (1NH22EE072),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering**of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.....	12/5/26
2.....Dr. Soniya Ag.....	12/05/26

MAVERICKS
SOLAR ENERGY SOLUTIONS PVT. LTD.

Certificates No.
ISO No: 20EQBM81 | Startup India: DIPP82966
IEC Number: AAKCM0605L | UKAAB/RXQVW9034Q

Date.12.01.2026

Ref. No. M0049

To Whom It May Concern

Dear **Nishant Gupta**,
We are pleased to offer you the position of Intern Analyst at Mavericks Solar Energy Solutions Pvt. Ltd. under the Renewable Energy System Department.The internship will be conducted in Hybrid mode for a duration starting from 15 January 2026 to 30 April 2026.

This internship is intended to provide structured learning and practical exposure to analytical practices applied in renewable energy systems. You are expected to actively participate in assigned tasks, demonstrate professional conduct, and comply with all organizational guidelines.
You will be paid a stipend of ₹5,000 (Rupees Five Thousand only) per month for the duration of the internship, subject to satisfactory performance.
Please note that this offer is for an internship engagement only and does not constitute an offer of employment. An Internship Completion Certificate will be issued only upon successful completion of the internship period and assigned responsibilities.
We look forward to your valuable contribution and wish you a rewarding learning experience with Mavericks Solar Energy Solutions Pvt. Ltd.

You're Sincerely,
For Mavericks Solar Energy Solutions Pvt. Ltd.

Arbind Kumar (Director)

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr.S.Sujitha and under the supervision of Internship Supervisor (Industry) Mr. Arbind Kumar as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Nishant Gupta.

Signature of the Student

Student Name: Nishant Gupta

USN: 1NH22EE072

NEW HORIZON
COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

IOT-BASED AIR QUALITY MONITORING SYSTEM

By

NOOR ZOYA

1NH22EE073

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs.NOOR ZOYA, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE073 of New Horizon College of Engineering carried out his/her internship from 12/01/2026 to 30/4/2026 in AICTE IDEA LAB, NHCE

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 98 marks out of 100 marks is awarded.

Date: 11/5/26

Signature of Mentor

Name of Mentor: Dr. S Sujitha
Designation: Prof. and HOD-EEE
Official Email: hod_eee@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department Of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "IOT-BASED AIR QUALITY MONITORING SYSTEM" was carried out by **Ms. NOOR ZOYA (1NH22EE073),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S Sujitha	**Dr. S Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.	12.05.26
2. Dr. Sowjya Agrawal	12/05/26

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEALab

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Noor Zoya
1NH22EE073
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Noor Zoya,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - **Internship Title:** IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering
Ring Road, Bellandur Post, Near Marathalli
Bangalore - 560103

NEW HORIZON
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INTERNSHIP REPORT (22EEE83)

ON

Customer Energy Solution And Feasibility Intern At Solar Square

By

PRAJWAL B

1NH22EE077

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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Internship Completion Certificate

It is certified that Mr. **Prajwal B** Department of Electrical and Electronics Engineering, bearing USN: **1NH22EE077** of New Horizon College of Engineering carried out his/her internship from 19/1/2026 to 05/5/2026 in SolarSquare Energy Pvt Ltd.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 94 marks out of 100 marks is awarded.

Date: 11/05/26

11/05/26

Signature of Mentor

Name of Mentor: Dr S. Sujitha

Designation: Professor and HoD

Official Email: dr.s.sujitha@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "CUSTOMER ENERGY SOLUTION AND FEASIBILITY INTERN AT SOLAR SQUARE INTERN(PROJECT COORDINATOR)"was carried out by **Mr. PRAJWAL B(1NH22EE077),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics**of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. SUJITHA	**Dr. S. SUJITHA**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubeesanahalli, Outer Ring Road Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Dr. S. Sujitha, NHCE	12/05/26
2. Dr. Soniya Agrawal, BNSCE	12/05/26

Date: 5th May 2026

To Whomsoever It May Concern,

We hereby certify that Prajwal B (1NH22EE077), student of New Horizon College of Engineering, Bengaluru, pursuing B.E.(EEE) has completed internship at Solar Square Energy, Bengaluru from 19th Jan 2026 to 5th May 2026.

He was sincere and has showed interest in all works assigned to him. We wish him all the best for his future endeavours.

Warm regards,

Dhaval S M
State Operations Head
Solar Square Energy
+91 8762229950 | dhaval.m@solarsquare.in

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Dr S. Sujitha** and under the supervision of Internship Supervisor (Industry) **Mr. Pavan Rathod** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Prajwal B

USN: 1NH22EE077

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INTERNSHIP REPORT (22EEE83)

ON

EQUIPPING AND LOOMS AT HINDUSTAN AERONAUTICS LIMITED (HAL)

And

GRAPHIC DESIGN INTERN

By

PRAJWAL MR

1NH22EE078

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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Internship Completion Certificate

It is certified that Mr. Prajwal MR Department of Electrical and Electronics Engineering bearing USN: 1NH22EE078 of New Horizon College of Engineering carried out his internship from 2/1/2026 to 31/5/2026 in the HAL and Edu trainer.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 91 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: Prof. SUNIL S K

Designation: Sr. Assistant Professor

Official Email: sunilmpcl@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"HAL and Graphics Design intern"** was carried out by **Mr. Prajwal MR (1NH22EE078),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
SUNIL SK	Dr. Sujitha S	**Dr. Manjunatha**
Sr. Assistant professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Dodbisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.	
2. Dr. Sanjya Agrawal, BMSCE	12/05/2026

Certificate

ವಿಮಾನ ವಿಭಾಗ / एयरक्राफ्ट प्रभाग / AIRCRAFT DIVISION
ಬೆಂಗಳೂರು ಸಂಕೀರ್ಣ / बैंगलूर कॉम्प्लेक्स / BANGALORE COMPLEX
ಹಿಂದೂಸ್ಥಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

ಆಂಡ್ ಕೆಬ್ಬನ್ ಸಂಖ್ಯೆ ೧೬೮೮, ಬೆಂಗಳೂರು-೫೬೦೦೧೭, ಭಾರತ
पोस्ट बैग सं.1788, बैंगलूर - 560017, भारत
Post Bag No.1788, Bengaluru - 560017, India
Ph. : 91 - 80 - 2231 1741
Fax : 91 - 80 - 2231 5188

No.A/HR/509/ 469 /2026

February 25, 2026

CERTIFICATE

This is to certify that **Mr. Prajwal M R, USN 1NH22EE078,** a bonafide BE (Electrical & Electronics) student of New Horizon College of Engineering has successfully completed his Internship in HAL at Aircraft Division, HAL, Bangalore from 02.01.2026 to 25.02.2026.

2. We wish him all the best and success in his future endeavors.

(Arun Kumar V)
Senior Manager (HR)

Mr. Prajwal M R,
BE (Electrical & Electronics),
New Horizon College of Engineering,
Bangalore.

ನೋಂದಾಯಿತ ಕಚೇರಿ : ೧೫/೧, ಕಬ್ಬನ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು-೫೬೦೦೦೧, ಭಾರತ
पंजीकृत कार्यालय : 15/1, कब्बन रोड़, बेंगलूर - 560 001, भारत
Registered Office : 15/1, Cubbon Road, Bengaluru - 560 001, India
ಸಿ ಐ ಎನ್ / सी आई एन / CIN: L35301KA1963GOI001622 ಇ / ई / E : aruna.rao@hal-india.co.in

www.hal-india.co.in

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

HINDUSTAN AERONAUTICS LIMITED (HAL)

By

PRAVEENKUMAR

1NH22EE080

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. PRAVEENKUMAR Department of Electrical and Electronics Engineering bearing USN: 1NH22EE080 of New Horizon College of Engineering carried out his internship from 2/1/2026 to 25/4/2026 in the HAL.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 91 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: SUNIL S K

Designation: Sr. Assistant Professor

Official Email: sunilmpl@gmail.com

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**HAL(Hindustan Aeronautics Limited)**"was carried out by **Mr. PRAVEENKUMAR (1NH22EE080),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics**of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
SUNIL SK	**Dr. Sujitha S**	**Dr. Manjunatha**
Sr. Assistant Prof	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560 103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 Sunil SK	12/5/26
2 Dr. Soniya Agrawal BMSCE	12/05/26

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CERTIFICATE

ವಿಮಾನ ವಿಭಾಗ / एयरक्राफ्ट प्रभाग / AIRCRAFT DIVISION
ಬೆಂಗಳೂರು ಸಂಕೀರ್ಣ / बेंगलूर कॉम्प्लेक्स / BANGALORE COMPLEX
ಹಿಂದೂಸ್ತಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

ಅಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ ೧೭೮೮, ಬೆಂಗಳೂರು-೫೬೦೦೧೭, ಭಾರತ
पोस्ट बैग सं.1788, बेंगलूरु - 560017, भारत
Post Bag No.1788, Bengaluru - 560017, India
Ph. : 91 - 80 - 2231 1741
Fax : 91 - 80 - 2231 5188

No. A/HR/509/ 578 /2026

25th April, 2026

CERTIFICATE

This is to certify that **Mr. Praveen Kumar, USN 1NH22EE080,** a bonafide BE(Electrical & Electronics) student of New Horizon College of Engineering has successfully completed his Internship in HAL at Aircraft Division, HAL, Bangalore from 02.01.2026 to 25.04.2026.

2. We wish him all the best and success in his future endeavors.

(Arun Kumar V)
Senior Manager (HR)

Mr. Praveen Kumar,
BE(Electrical & Electronics),
New Horizon College of Engineering,
Bangalore.

ನೋಂದಾಯಿತ ಕಚೇರಿ : ೧೫/೧, ಕಬ್ಬನ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು-೫೬೦೦೦೧, ಭಾರತ
पंजीकृत कार्यालय : 15 /1, कब्बन रोड, बेंगलूरु - 560 001, भारत
Registered Office : 15 /1, Cubbon Road, Bengaluru - 560 001, India
ಸಿ ಐ ಎನ್ / सी आई एन / CIN: L35301KA1963GOI001622 ಇ / ई / E : aruna.rao@hal-india.co.in

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INTERNSHIP REPORT (22EEE83)

ON

Solar PV System Design and Simulation Intern at Solarsquare

By

PREETHAM RAJ S

1NH22EE081

Department of Electrical and Electronics

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. **PREETHAM RAJ S** Department of Electrical and Electronics bearing USN: **1NH22EE081** of New Horizon College of Engineering carried out his internship from 22/01/2026 to 05/05/2026 in SolarSquare Energy Pvt Ltd.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 95 marks out of 100 marks is awarded.

Date: 11/5/26

Signature of Mentor

Name of Mentor: Dr S. Sujitha

Designation: Professor and HoD

Official Email: dr.s.sujitha@gmail.com

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**SOLAR PV SYSTEM DESIGN AND SIMULATION INTERN (PROJECT COORDINATOR)**" was carried out by **Mr. Preetham Raj S (1NH22EE081)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. SUJITHA	**Dr. S. SUJITHA**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Bellandur Post,
Bengaluru-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Sruthi C, NHCE	12/5/26
2. Dr. Soniya Agrawal, BMSCA	12/05/26

Date: 5th May 2026

To Whomsoever It May Concern,

We hereby certify that Preetham Raj S (1NH22EE081), student of New Horizon College of Engineering, Bengaluru, pursuing B.E (EEE) has completed internship at Solar Square Energy, Bengaluru from 22nd Jan 2026 to 5th May 2026.

He was sincere and has showed interest in all works assigned to him. We wish him all the best for his future endeavours.

Warm regards,

Dhaval S M
State Operations Head
Solar Square Energy
+91 8762229950 | dhaval.m@solarsquare.in

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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INTERNSHIP REPORT (22EEE83)

ON

(WEB DEVELOPMENT INTERNSHIP)

By

Preety Gupta

1NH22EE082

Department of Electrical and Electronics Engineering

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs. **Preety Gupta** Department of **Electrical and Electronics Engineering** bearing USN: **1NH22EE082** of New Horizon College of Engineering carried out her internship from **21/01/2026** to **21/04/2026** in the **1Stop.**

On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of **96** marks out of 100 marks is awarded.

Date: 21/04/2026

Signature of Mentor

Name of Mentor: Megha Singh

Designation: Technical Program Mentor Lead Instructor

Official Email: megha.singh@onestop.com

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COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**Web Development Internship**" was carried out by **Ms. Preety Gupta (1NH22EE082),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. B. Gunapriya	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1	12/5/25
2 Dr. Soumya Agrawal, BNSCE	12/05/26

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Company Certificate

INTERNSHIP
CERTIFICATE

THIS IS TO CERTIFY THAT

Preety Gupta

has successfully completed internship program in **Web Development Back-End** from 21st Jan, 2026 to 21st Apr, 2026. During the internship, the student was found to be dedicated, hardworking and diligent.

1stop.ai/verify-certificate

Academic Head

1stop
Keep Growing

Director Signature

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NEW HORIZON
COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

MAINTENANCE AND SUPPORT INTERN

By

PURVIK J H

1NH22EE083

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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COLLEGE OF ENGINEERING

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Internship Completion Certificate

It is certified that Mr. Purvik J H , Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE083 of New Horizon College of Engineering carried out his internship from 03/11/2025 to 06/03/2026 in the Akshayakalpa farms and foods Pvt ltd.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 92 marks out of 100 marks is awarded.

Date 8/5/26

8/5/26
Signature of Mentor

Name of Mentor: Dr Vinoth Kumar K

Designation: Professor & Associate Head - R&D

Official Email: dr.vinothkumar@newhorizonindia.edu

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COLLEGE OF ENGINEERING

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**MAINTENANCE AND SUPPORT INTERN**" was carried out by **Mr. Purvik J H (1NH22EE083),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Vinoth Kumar K	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor and Associate Head	Prof and HOD	Principal
R&D	Dept of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Dr. S. Sujitha, NHCE,	12/5/26
2. Dr. Soumya Ag., BMSCE	12/05/26

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Akshayakalpa
Organic

Akshayakalpa Farms & Foods Pvt. Ltd.

#367/G, 3rd Main Road, Sharadanagara, Tiptur - 572 201, Karnataka.

Certificate of Internship

This certificate is proudly presented to

Mr. Purvik J H

bearing Registered Number *1NH22EE083*,

For successfully completing the internship at

Akshayakalpa Farms & Foods Pvt. Ltd. as a *Maintenance & Support Intern*,

under the guidance of *Mr. Kiran Basavaraj* from *03-11-2025* to *06-03-2026*

During this period, there was a strong interest shown by intern in assignments, and adherence to the code of conduct was found to be satisfactory.

We appreciate the valuable contributions made and wish all the best in future endeavors.

AKSHAYAKALPA FARMS & FOODS PVT. LTD. * TIPTUR

Nethra Mohan
Head - People Experience

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INTERNSHIP REPORT (22EEE83)

ON

E&E INTEGRATION INTERN

By

R SHREYAS

1NH22EE084

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. R SHREYAS, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE084 of New Horizon College of Engineering carried out his internship from 02/09/2025 to 31/05/2026 in the Moonrider Pvt. Ltd., Bommasandra.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 06-05-2026

D. Satish K

Signature of Mentor

Name of Mentor: Mr. SATISH KUMAR D

Designation: Senior Assistant Professor

Official Email: d.satishkumar.d@gmail.com

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Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled "**E&E INTEGRATION INTERN** " was carried out by **Mr. R SHREYAS (1NH22EE084),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in ELECTRICAL AND ELECTRONICS** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Mr. SATISH KUMAR D	**Dr. S. SUJITHA**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners

Signature with date

1..... 12/5/26

2..... Dr. Soniya Agrawal 12/05/26

01-09-2025

INTERNSHIP OFFER LETTER

Dear Shreyas R,

We are pleased to offer you the opportunity to join Moonrider as an **E&E Integration Intern** under the guidance of our Chief Product and Technology Officer (CPTO). This internship will be based out of our office in Bangalore, Karnataka.

The internship is scheduled to commence on 2nd Sep 2025 and will run for a duration of 9 months with a stipend of INR 20,000 per month.

We are confident that this experience will contribute meaningfully to your professional growth and future career pursuits. We look forward to welcoming you to the team and supporting you throughout your internship journey.

Sincerely,

Moonrider Pvt. Ltd. Bangalore-560058

Prashanth N
Head – Distribution / Strategic Partnership and HR, Moonrider

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Mr. SATISH KUMAR D** and under the supervision of Internship Supervisor (Industry) **Mr. Rushikesh Kukade** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: R SHREYAS

USN: 1NH22EE084

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INTERNSHIP REPORT (22EEE83)

ON

EMBEDDED SYSTEMS AND INDUSTRIAL IOT

By

R GAGANA

1NH22EE085

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs. R GAGANA, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE085 of New Horizon College of Engineering carried out his/her internship from 16/10/2025 to 20/4/2026 in NISSI ENGINEERING SOLUTIONS PVT LTD., CHENNAI.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 89 marks out of 100 marks is awarded.

Date: 21/5/26

11/5/26
Signature of Mentor

Name of Mentor: Dr. S Sujitha

Designation: Prof. and HoD

Official Email: hod_eee@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Department Of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**EMBEDDED SYSTEMS & INDUSTRIAL IOT**" was carried out by **Ms. R GAGANA (1NH22EE085),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S Sujitha	**Dr. S Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Dr. Soniya Agrawal	12/05/2026
2. Sunil S K	12/5/26

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Company Certificate

NISSI

Nissi Engineering Solution Pvt. Ltd.
Plot no 4 & 5, Redhills Tiruvallur high road
Opp alamathi school, Alamathi,
Chennai 600 052.
India
CIN : U93000TN2013PTC092139

Phone : +91 44 2658 1583
Fax : +91 44 2658 2432
E-mail : nissi_engg@yahoo.com
Web : www.nissi.co.in

Date:20-04-2026

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms.R.Gagana** (USN: 1NH22EE085) from New horizon college of engineering has successfully completed 6 months of an internship program from 16-10-2025 to 20-04-2026 of our organization. She has worked on a project **Intelligent Field Device (IFD)** UI using PyQt5 for automated certificate generation, **Remote Monitoring System (RMS)** with SMS and WhatsApp alerts and **Industrial Protocol Gateway converting MODBUS/OPC UA to IEC 104** with full ASDU support .

As part of the project, she has learned Basics of Embedded systems and various sensor interfacing with IoT.

She was highly motivated and hardworking. She worked sincerely at her tasks and did a very good job.

We wish her great success in her future endeavors.

Sincerely,

(Ranjithkumar)
Project Manager

NISSI Engineering Solution Pvt. Ltd. Chennai

Sincerely,

(M.Nanthagopal)
RnD Manager

NISSI Engineering Solution Pvt. Ltd. Chennai

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INTERNSHIP REPORT (22EEE83)

ON

STARTUP AND ENTREPRENEURSHIP

By

Raghaveni S

1NH22EE086

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Raghaveni S Department of Electrical and Electronics Engineering bearing USN: 1NH22EE086 of New Horizon College of Engineering carried out his internship from 26/01/26 to 01/05/26 in the 1Stop.ai On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: Ms. Surat Pyari Atti

Designation: Assistant Professor

Official Email: suratpyari271184@gmail.com

NEW HORIZON
COLLEGE OF ENGINEERING

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Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"STARTUP AND ENTREPRENEURSHIP"** was carried out by **Ms. Raghaveni S (1NH22EE086),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Ms. Surat Pyari Atti	**Dr. S. Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubeesanahalli, Outer Ring Road
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Smt. S.I.C, Belgm, NHCE	12/5/26
2. Dr. Saniya Agrawal, BMSCE	12/05/26

INTERNSHIP CERTIFICATE

Date: 10 Jan, 2026

Dear **Raghaveni S,**

Apropos to your application for interning as "Mentorship Intern" and subsequent to our discussions we are pleased to offer you Project based Internship as **"Startup and Entrepreurship - Mentorship Intern"** This is subject to no adverse findings arising from any of the intern background verification which is required to be carried out by the Organization. The date of your joining Fox Trading is 01 Feb, 2026 with the following terms of engagement as outlined below. The duration of internship will be 58 days.

Internship Hours/Duration – The working hours of the firm are 4:30PM-8.30PM. We do not follow flexi hours, so it is mandatory to complete the working hours at the home. You may be required to work on the weekends and the week offs will be provided during the weekday as agreed between the Intern and the Manager.

Location – Your place of internship will be Work from Home.

Work – You will perform all duties and obligations and comply with such orders as may be designated by the Company management which are reasonably consistent with your position as an intern.

Working in Shifts – You may be required to intern in shifts. This shall be informed to you by your manager/supervisor well in advance.

Code of Conduct – Your internship is governed by the Code of Conduct. A copy is attached. You are required to read, understand and follow it in letter and spirit.

Confidentiality – In the ordinary course of your internship you will be exposed to information about the business of the Company, its clients and customers, which is confidential or is commercially sensitive and which may not be readily available to competitors or the general public, and which if disclosed would be harmful for our reputation. All information is shared on a need-to-know basis. You shall not discuss or transmit by any means any confidential information outside the office environment or with other employees/ interns who are not otherwise authorized to know.

Intellectual Property – You agree that during your internship the 'work of art', any patent application, design, copyright or other intellectual property shall be owned by the Company,

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INTERNSHIP REPORT (22EEE83)

ON

PAYMENTS DOMAIN

By

RAJ SINGH

1NH22EE088

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Raj Singh, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE088 of New Horizon College of Engineering, carried out his internship from 07/07/2025 to 07/07/2026 in Gilbarco Veeder-Root. On the basis of his regularity, punctuality, interest shown towards learning skills, team participation, work experience, and meeting internship requirements, he has satisfactorily completed the internshipobjectives, a score of 98 marks out of 100 marks is awarded

Date: 11/5

Signature of Mentor

Name of Mentor:Dr. S. Sujitha

Designation: Prof. & HOD EEE

Official Email: dr.s.sujitha@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"Payment's Domain"** was carried out by **Mr. RAJ SINGH (1NH22EE088),** a bonafide student at New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560 103, Karnataka, India

SEE Viva

Name of the examiner's	*Signature with date*
1	
2 Dr. Soniya Agrawal	12/05/26

ADD Company Certificate here

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GILBARCO VEEDER-ROOT

Gilbarco Veeder-Root India Pvt. Ltd.
Art Guild House, First Floor, B Wing,
Phoenix Marketcity, LBS Marg, Kurla (W)
Mumbai 400070 India
Ph: +91-22-66379000
CIN No: U29268TZ2009PTC027778

Date: 11th June 2025

Raj Singh
Campus –New Horizon college
Location – Bangalore

Dear Raj,
We are pleased to offer you an Internship in **Gilbarco Veeder-Root India Pvt. Ltd,** a Vontier company for a period of 12 months. The Internship will commence from **7th July, 2025 till 6th July, 2026** extendable based on mutual consent.

You will be paid a stipend of **INR 50,000 per month** during your tenure of internship, no other allowance will be applicable. However, the company shall reimburse travel expenses, as per the travel policy for any official travel undertaken by you for carrying out the project.

The terms and conditions are as below:

1. **Period of Internship**: The Internship will be for the period from **7th July, 2025 till 6th July, 2026.**
2. **Place of Internship**: Gilbarco Veeder-Root India Pvt. Ltd, Sattva Knowledge Court – 1st floor Right Wing Block, Plot No.9 of Doddenakkundi I Phase Industrial Area, Bangalore 560048
3. **Name and Designation of Mentor**: Sharvari Sawant, Software Engineering Team Leader
4. **Name and Email address of HR Contact:** Jeya Priscilla, Lead Specialist– Talent Acquisition Gilbarco Veeder-Root India Pvt. Ltd.

General Terms and Conditions

a. You will, whilst during the Internship period and thereafter, maintain strict confidentiality of matters pertaining to our Organization which may be your personal privilege by virtue of being an Intern in our Company.

b. You acknowledge that Company's operations, techniques, forms, documents, computer printouts, invoices, methods of doing business, clients, customer lists, the identity of suppliers or goods sold by Company, the prices paid by Company for its goods, and Company's accounts receivable are trade secrets and confidential information (herein after called and referred to as "Confidential Information") and confidentiality obligations are applicable to you.

c. The Company shall be entitled to the sole benefit and exclusive ownership of any intellectual property or improvements in plant, machinery, process/es or other things used in the business of the Company that may be made or discovered by you while you are in the service of the Company, and all intellectual property/ies for the same, and you shall do all acts necessary or required by the Company to give effect to the same.

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INTERNSHIP REPORT (22EEE83)

ON

MACHINE LEARNING

By

Rani Gupta R

1NH22EE090

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Rani Gupta R Department of Electrical and Electronics Engineering bearing USN: 1NH22EE090 of New Horizon College of Engineering carried out her internship from 19/01/26 to 19/04/26 in the Movidu Technology Pvt Ltd On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 98 marks out of 100 marks is awarded.

Date: 7/5/26

Signature of Mentor

Name of Mentor: Dr. S. Sujitha

Designation: Prof. & HOD EEE

Official Email: dr.s.sujitha@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"Machine Learning"** was carried out by **Ms. Rani Gupta R (1NH22EE090),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1	12/5/26
2 Dr. Soniya Agrawal	12/05/2026

MOVIDU

Internship Offer Letter

MOVIDU TECHNOLOGY PRIVATE LIMITED
1018-993, 1018, 20th Cross Rd, 7th Sector,
HSR Layout, Bengaluru, Karnataka 560102.
hrteam@movidu.in | https://gpt.movidu.in/

Date: 10-01-2026

To,
Rani Gupta R,

Dear **Rani Gupta R,**

We are pleased to offer you the position of "**Machine Learning Intern**" for **Virtual Internship** at **Movidu Technology Private Limited**. This virtual internship program is designed to provide hands-on exposure to machine learning techniques, data-driven modelling, and real-world implementation under professional mentorship.

Internship Details		
Position: Machine Learning Intern	**Mode:** Virtual	**Duration:** 4 Months
Internship Start Date: 19th January 2026 – 19th May 2026		**Stipend: Performance-Based**
Working Hours: 12PM To 6PM		
Reporting To: Assigned Project Mentor / Team Lead		

Roles & Responsibilities

- Assisting in data collection, cleaning, and preprocessing for ML models.
- Supporting the development, training, and evaluation of machine learning models.
- Working with Python and ML libraries such as NumPy, Pandas, Scikit-learn, and TensorFlow/PyTorch (as applicable).
- Performing exploratory data analysis and feature engineering.
- Assisting in model testing, validation, and optimization.
- Documenting methodologies, results, and project outcomes.
- Collaborating with cross-functional teams on ML-driven projects.

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Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

CUSTOMER SUCCESS ENGINEER

By

Renuka R Ramakrishnan

1NH22EE091

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Renuka R Ramakrishnan Department of Electrical and Electronics Engineering bearing USN: 1NH22EE091 of New Horizon College of Engineering carried out her internship from 11/09/25 to 27/02/26 in the Plivo India Private Limited. On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 95 marks out of 100 marks is awarded.

Date: 11/5/26

11/5/26

Signature of Mentor

Name of Mentor: Dr. S. Sujitha

Designation: Prof. & HOD EEE

Official Email: dr.s.sujitha@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"Customer Success Engineer"** was carried out by **Ms. Renuka R Ramakrishnan (1NH22EE091),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bengaluru-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1	12/5/26
2 Dr. Soniya Agrawal, BMSCE	12/05/26

Company Certificate

Plivo

31-March-2026

INTERNSHIP LETTER

This is to certify that **Renuka R Ramakrishnan (ID: 2013877)** was employed as a **Customer Success Engineer Intern** with **Plivo India Private Limited** (formerly Plivo Communications Private Limited) from **10-Sep-2025** to **27-Feb-2026**.

During the internship period, Renuka R Ramakrishnan demonstrated professionalism and diligence while contributing to assigned projects and responsibilities.

We wish Renuka R Ramakrishnan continued success in all future endeavours.

Prabha M.R.

Prabha Masilamani
VP – Human Resources

Plivo India Private Limited
7th Floor, Indiqube Eco World, Campus 32, RMZ Ecoworld, Bhoganahalli Village, Varthur Hobli,
Bellandur, Bengaluru, Karnataka 560103

Doc ID: 6be2212ae3ae9de9d55ba1f77bbd9ae9875c1812

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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INTERNSHIP REPORT (22EEE83)

ON

IOT-BASED AIR QUALITY MONITORING SYSTEM

By

RESHMA RAJ KR

1NH22EE092

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms.RESHMA RAJ KR, Department of Electrical and Electronics Engineering, bearing USN:1NH22EE092 of New Horizon College of Engineering carried out her internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date: 07.05.26

Signature of Mentor

Name of Mentor: Prof. Vinod Kumar S

Designation: Sr. Assistant professor

Email: vinodks@newhorizonindiu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"IoT based Air Quality Monitoring System"** was carried out by **Ms. Reshma Raj KR (1NH22EE092),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Mr. Vinod Kumar S	**Dr. S Sujitha**	**Dr. Manjunatha**
Senior Assistant professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaduhisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... 12/5/26.
2. Dr. Soumya Agrawal 12/05/26

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEALab

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Reshma Raj KR
1NH22EE092
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Reshma Raj KR,

We are pleased to inform you that you have been selected for a three-month internship at the **AICTE IDEA Lab, New Horizon College of Engineering,** under the domain of **Internet of Things (IoT).**

Internship Details: - Internship Title: IoT-Based Project Development
- Duration: 3 Months
- Internship Period: 19/01/2026 to 30/04/2026
- Location: AICTE IDEA Lab, New Horizon College of Engineering
- Mode: Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
Principal
New Horizon College of Engineering

Principal
New Horizon College of Engineering
Ring Road, Bellandur Post, Near Marathalli,
Bengaluru
Bangalore - 560103

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INTERNSHIP REPORT (22EEE83)

ON

Solar Project Management Intern at SolarSquare

By

ROSHAN P

1NH22EE093

Department of Electrical and Electronics

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

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Internship Completion Certificate

It is certified that Mr. **ROSHAN P** Department of Electrical and Electronics bearing USN: **1NH22EE093** of New Horizon College of Engineering carried out his internship from 7/01/2026 to 05/05/2026 in SolarSquare Energy Pvt Ltd.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 98 marks out of 100 marks is awarded.

Date: 11/5/26

11/5/26

Signature of Mentor

Name of Mentor: Dr S. Sujitha

Designation: Professor and HoD

Official Email: dr.s.sujitha@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"SOLAR PROJECT MANAGEMENT INTERN (PROJECT COORDINATOR)"** was carried out by **Mr. Roshan P (1NH22EE093),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. SUJITHA	**Dr. S. SUJITHA**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Sunil S K	12/5/26
2. Dr. Soniya Agrawal.	12/05/26

Date: 5th May 2026

To Whomsoever It May Concern,

We hereby certify that Roshan P (1NH22EE093), student of New Horizon College of Engineering, Bengaluru, pursuing B.E.(EEE) has completed internship at Solar Square Energy, Bengaluru from 7th Jan 2026 to 5th May 2026.

He was sincere and has showed interest in all works assigned to him. We wish him all the best for his future endeavours.

Warm regards,

Dhaval S M
State Operations Head
Solar Square Energy
+91 8762229950 | dhaval.m@solarsquare.in

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Dr S. Sujitha** and under the supervision of Internship Supervisor (Industry) **Mr. Pavan Rathod** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Roshan P

USN: 1NH22EE093

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be impossible without the mention of the people who made it possible, whose constant guidance and encouragement crowned our efforts with success.

We have great pleasure in expressing gratitude to **Dr. Mohan Manghnani**, Chairman, New Horizon Educational Institutions, for providing necessary infrastructure and creating good environment.

We take this opportunity to express our profound gratitude to **Dr. Manjunatha,** Principal, New Horizon College of Engineering, for his constant support and encouragement.

We would like to thank **Dr. R J Anandhi**, Professor and Dean-Academics, NHCE, for her valuable guidance.

We would like to thank **Dr. S. Sujitha**, Professor and HOD-EEE, Department of EEE, for her constant support.

We also express our gratitude to the internship Mentors, **Dr. S. Sujitha**, Professor and HOD-EEE, Dept. of EEE and to **Mr. Pavan Rathod,** Project Manager, for constantly monitoring the development of the internship and setting up precise deadlines. Their valuable suggestions had been the motivating factor in completing the work.

Finally, a note of thanks to all the teaching and non-teaching staff of the department, for their cooperation extended to us, and our parents and friends, who helped us directly or indirectly in the course of the project work.

ROSHAN P (1NH22EE093)

ABSTRACT

The increasing demand for sustainable and renewable energy sources has significantly accelerated the adoption of solar photovoltaic (PV) systems across the world, particularly in the rooftop segment. With growing concerns over environmental degradation, depletion of fossil fuels, and rising electricity costs, solar energy has emerged as a reliable and eco-friendly alternative. In India, favorable climatic conditions and government initiatives have further encouraged the implementation of rooftop solar systems in residential and commercial sectors.

This internship report presents the practical exposure and technical knowledge gained during the internship at SolarSquare Energy Pvt Ltd, where the role of Project Coordinator was undertaken. The internship provided an opportunity to understand the complete lifecycle of a rooftop solar project, from initial site assessment to final commissioning. It also enabled the application of theoretical concepts from Electrical and Electronics Engineering in real-world scenarios.

The internship primarily focused on understanding the design, installation, and execution of rooftop solar photovoltaic systems. Key activities included participation in Detailed Engineering Visits (DEV), which involved site inspection, rooftop measurement, shadow analysis, and feasibility assessment. In addition, the internship involved system design coordination, including panel layout planning, inverter selection, and electrical system configuration. Practical exposure was also gained in inverter integration, cable routing, and earthing system implementation, all of which are critical for ensuring system efficiency, safety, and long-term reliability.

Furthermore, the internship required continuous coordination between multiple stakeholders, including design engineers, installation teams, vendors, and customers, to ensure smooth project execution. This coordination role helped in understanding project management aspects such as scheduling, resource allocation, and problem resolution in real-time field conditions. The experience also highlighted the importance of adhering to safety standards, electrical regulations, and quality practices during installation.

The report emphasizes the significance of accurate site assessment, efficient system design, and proper installation techniques in achieving optimal performance of solar systems. It also discusses the practical challenges encountered during field operations, such as space constraints, shading issues, and coordination difficulties, along with the solutions adopted to overcome them.

Overall, the internship provided valuable insights into the practical implementation of solar PV systems and strengthened the understanding of core electrical engineering concepts such as power conversion, electrical wiring, and protection systems. It also contributed to the development of technical skills, problem-solving abilities, and professional competencies required in the renewable energy sector, thereby preparing for future career opportunities in this rapidly growing field.

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INTERNSHIP REPORT (22EEE83)

ON

Real-Time IoT Smart Water Level Monitoring System with OLED and Blynk

By

S BINDUSHREE

1NH22EE094

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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Internship Completion Certificate

It is certified that Ms.S Bindushree, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE094 of New Horizon College of Engineering carried out her internship from 2/1/2026 to 13/5/2026 in the IDEA Lab.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 92 marks out of 100 marks is awarded.

Date: 8/5/26

Signature of Mentor

Name of Mentor: DR. B. Gunapriya

Designation: Associate Professor, Dept of EEE

Email : gunapriya1978@gmail.com

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**Real-Time IoT Smart Water Level Monitoring System with OLED and Blynk**" was carried out by **Ms. S Bindushree (1NH22EE094),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr.B. Gunapriya	**Dr. Sujitha S**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kasturinagar, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1	12/5/25
2 ... Dr. Soniya Agrawal, BMSCE	12/05/25

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

S Bindushree
1NH22EE094
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear S Bindushree,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
Principal
New Horizon College of Engineering
Ring Road, Bengaluru

Principal
New Horizon College of Engineering
New Horizon College of Engineering, Bellandur Post, Near Marathalli
Ring Road, Bengaluru
Bangalore - 560103

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NEW HORIZON COLLEGE OF ENGINEERING

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INTERNSHIP REPORT (22EEE83)

ON

"EMBEDDED SYSTEMS AND IOT"

By

SAHANA PATTAR

1NH22EE095

Department of Electrical and Electronics Engineering

AY: 2025-2026

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NEW HORIZON COLLEGE OF ENGINEERING

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Internship Completion Certificate

It is certified that Ms. SAHANA PATTAR, Department of Electrical and Electronics Engineering bearing USN: 1NH22EE095 of New Horizon College of Engineering carried out her internship from 10th Jan 2026 to 17th July 2026 in the SURE ProEd Family. On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 08/05/2026

Signature of Mentor

Name of Mentor: Dr.B.Gunapriya

Designation: Associate Professor

Official Email: gunapriya1978@gmail.com

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**EMBEDDE SYSTEMS AND IOT**" was carried out by **Ms.SAHANA PATTAR(1NH22EE095)**, a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr.B.Gunapriya	**DR.SUJITHA**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of Electrical and Electronics Engineering	Dept. of Electrical and Electronics Engineering	NHCE

SEE Viva

Name of the examiners	*Signature with date*
1.	12/5/26
2. Dr. Soniya Agrawal,	12/05/26

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Company Certificate

SURE Trust - SKILL UPGRADATION FOR RURAL YOUTH EMPOWERMENT
Sreeguru Towers, Second Floor Gopuram Road, Opp. Union Bank of India
Puttaparthi. 515134 | +919440045717 / +917981538206 |
www.suretrustforruralyouth.com| Email: contact@suretrustforruralyouth.com

SURE Trust – AICTE Internship Offer Letter

Ms. Sahana Pattar
BE Electrical and Electronics Engineering 4th year
New Horizon College of Engineering
New Horizon College of engineering Ring road Bellandur, Bengaluru

Dear Sahana Pattar ,

SURE Trust is pleased to inform you that you are admitted as an Intern in the domain of "Embedded Systems & IOT" to work on industry-relevant projects for 6 months, starting from 10-01-2026. The management of SURE Trust has taken this decision after scrutinizing your technical skills in this domain. While there is no legal binding on either side in this contract, your commitment is taken as assured based on the words given by you. This internship requires you to work in complete coordination with the team, complete the assigned task by meeting the deadlines, and attend the weekly meetings mandatorily. You shall be reporting to SURE ProEd your mentor for your internship. It will be your responsibility to support the team in submitting the final report on project work completed in the required format and making it deployable. After completion of your internship, SURE Trust will give you an internship completion certificate after evaluating your performance. If this internship is acceptable to you kindly sign the letter and send it back for our records.

Prof. Radhakumari Challa
Founder & Executive Director, SURE Trust

To
Ms. Sahana Pattar

9/1/2026

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

"EMBEDDED SYSTEMS AND IOT"

By

SAHANA S

1NH22EE096

Department of Electrical and Electronics Engineering

AY: 2025-2026

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Sahana S Department of Electrical and Electronics Engineering bearing USN: 1NH22EE095 of New Horizon College of Engineering carried out her internship from 17th Jan 2026 to 17th July 2026 in the SURE ProEd Family. On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 08/05/2026

Signature of Mentor

Name of Mentor:Dr.B.Gunapriya

Designation:Associate Professor

Official Email: gunapriya1978@gmail.com

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

tified that the internship work entitled "**EMBEDDED SYSTEMS AND IOT** " was carried out by **. Sahana S (1NH22EE096),** a bonafide student of New Horizon College of Engineering in partial ilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all rections/suggestions indicated for Internal Assessment have been incorporated in the Report posited in the Departmental library. The internship report has been approved as it satisfies the ademic requirements in respect of the Internship work prescribed for the Bachelor of Engineering gree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr.B.GUNAPRIYA	**DR.SUJITHA**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of Electrical and Electronics Engineering	Dept. of Electrical and Electronics Engineering	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.....	12/5/26
2..... Dr. Saniya Agrawal, BMSCE.	12/05/26

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www.suretrustforruralyouth.com| Email: contact@suretrustforruralyouth.com

SURE Trust – AICTE Internship Offer Letter

Ms. Sahana S
BE Electrical and Electronics Engineering 4th year
New Horizon College Of Engineering
Marathalli

Dear Sahana S,

SURE Trust is pleased to inform you that you are admitted as an Intern in the domain of "Embedded Systems & IOT" to work on industry-relevant projects for 6 months, starting from 10-01-2026. The management of SURE Trust has taken this decision after scrutinizing your technical skills in this domain. While there is no legal binding on either side in this contract, your commitment is taken as assured based on the words given by you. This internship requires you to work in complete coordination with the team, complete the assigned task by meeting the deadlines, and attend the weekly meetings mandatorily. You shall be reporting to SURE ProEd your mentor for your internship. It will be your responsibility to support the team in submitting the final report on project work completed in the required format and making it deployable. After completion of your internship, SURE Trust will give you an internship completion certificate after evaluating your performance. If this internship is acceptable to you kindly sign the letter and send it back for our records.

Ch Radhakumari

Prof. Radhakumari Challa
Founder & Executive Director, **SURE Trust**

To
Ms. Sahana S

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IoT-Based Smart Waste Management System

By

Sakshi S M

1NH22EE097

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Sakshi S M, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE097 of New Horizon College of Engineering carried out her internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 96 marks out of 100 marks is awarded.

Date: 09/05/26

Signature of Mentor

Name of Mentor: Dr. Karthika M

Designation: Associate Professor, Dept of EEE

Official Email: karthikam@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"IoT-Based Project Development"** was carried out by **Ms. Sakshi S M (1NH22EE097)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. Karthika M	**Dr. Sujitha S**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.	
2. Dr. Soniya Agrawal.	12/05/26

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Sakshi S M
1NH22EE097
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Sakshi S M,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering,** under the domain of **Internet of Things (IoT).**

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering
Bangalore - 560103

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

(SECURITIES MODULE AT TEMENOS)

By

SHATAKSHI PATTANAIK

1NH22EE099

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. SHATAKSHI PATTANAIK, Department of Electrical and Electronics Engineering bearing USN: 1NH22EE099 of New Horizon College of Engineering carried out his/her internship from 6th October, 2025 to 6th April, 2026 in Temenos. On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of _____ marks out of 100 marks is awarded.

Date: 09/05/26

Signature of Mentor

Name of Mentor: Dr Karthika M

Designation: Associate Professor

Official Email: karthiikam@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"SECURITIES MODULE AT TEMENOS"** was carried out by **Ms. SHATAKSHI PATTANAIK (1NH22EE099),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr Karthika M	**Dr Sujitha S**	**Dr. Manjunatha**
Associate Professor	Prof and HOD-EEE	Principal
Dept. of Electrical and Electronics Engineering	Dept. of Electrical and Electronics Engineering	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1.....

2.....

temenos

Leading Banking Forward

Temenos India Private Limited
IBC Knowledge Park, Block D 10th & 11th Floor,
4/1, Bannergatta Road, Near Dairy Circle
Bangalore 560 029 India
Tel: +91 (0) 80 4137 6000

10 Sep 2025

Invite for Internship

Dear Shatakshi Pattanaik,

#6, 2nd Floor, J.P Colony, 9Th Cross, Tulasi Theatre Road, Marathahalli, Bangalore - 37.

It gives us immense pleasure in inviting you for Internship training with Temenos India Private Limited, commencing on **06 Oct 2025** and concluding on **06 Apr 2026**, in response to the recommendation placed before the organization by your institution. Internship training is one of the ways in which Temenos contributes to the cause of professional education by providing students an opportunity to receive on the job training with us.

1. **Stipend**: You will be paid INR **25,000** per month as a stipend during internship training.

2. **Date of Joining: 06 Oct 2025**

3. **Termination**: Fifteen Days' notice must be given should either party wish to terminate/discontinue the internship program. However, any misdemeanor or misconduction the part of the Intern will justify immediate dismissal without notice.

4. **Training Hours**: 8 hours per day, 5 days per week (Mon to Fri). Working hours may be subject to change following business requirements.

5. **Place of work**: IBC Knowledge Park, Block D, 10th & 11th Floor Bangalore Karnataka - 560029. You may however be required to take up assignments with subsidiaries of the group and/or our clients, which may include travel within India.

6. **Vacation**: You will be eligible for one day leave per month during the internship. Apart from this you will also be entitled to statutory public holidays announced by Temenos India.

7. **Confidentiality/ Non-Disclosure**: All matters, information or work undertaken by you in the course of your employment are confidential and you shall not release to third parties or make known any such matters. information or work without the prior written consent of the company.

8. **Training**: You will be provided adequate classroom training and the duration of training would be purely based on the business requirement. During the Internship period, if your performance is found to be unsatisfactory or if it does not meet the prescribed criteria, your training can be terminated by the Company with one week notice. .

On conversion to Temenos employment, you need to sign the Training Agreement, which stipulates a condition that you have to serve the company for a minimum period of 24 Months after the Training period. Failing which you will be required to reimburse the Company an amount of INR 3 Lakhs as Liquidated Damages, towards the cost of Training and Certification and all other costs related to Training

9. **Company's Procedures**: Temenos has a Group Policy for staff that contains the company's operating rules and procedures with regard to Dress code, behavior, etc. You shall abide by them.

10. **Passport**: You will need to produce the photocopy of the passport or receipt for having applied for the same.

11. **Background Checks**: The Company at its sole discretion may conduct background checks, prior to or after your joining service in Temenos, verify your identity, the address you reside in, your educational qualifications and details to your prior employment/s, if any, as mentioned in your Job Application Form / Annexure III of Letter of Employment, and conduct any criminal checks / records. You expressly consent to the Company for conducting such background checks. You will be required to furnish documents as specified in "Annexure III of Letter of Employment" towards the background checks. If the Company is not satisfied on the outcome of your background checks, the Company at its sole discretion, reserves the right to withdraw this offer without any notice and may request for compensation or will take appropriate action against you, including, but not limited to termination of your employment. While conducting background checks, if there arises any doubts regarding any of the details furnished by you in the Annexure III of Letter of Employment, the Company may at its sole discretion, ask you for further information to validate the facts or to substantiate the details that you have earlier provided to the company, to take appropriate action.

12. **Statutory Benefits**: You are not a full time employee of Temenos India and therefore statutory benefits like Provident Fund, ESI etc. are not applicable to you as an intern.

13. You shall defend, indemnify, and hold harmless Temenos India from and against any material claim, liability, demand, loss, damage, judgement or other obligation or right of action, which may arise as a result of:

a) Breach of any provision of this letter

b) Misrepresentation or

c) Anything done or omitted to be done through the negligence, default or misconduct.

Please sign and return the attached acknowledgement copy of this letter before to indicate your agreement to these terms and consideration of Internship.

Yours sincerely.

Sethu Rathinam Thiyagarajan

Vice President

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. Karthika M and submit as a part of the Internship (22EEE83) of B. E. in Temenos in New Horizon College of Engineering during the academic year 2025-2026.

Shatakshi

Signature of the Student

Student Name: Shatakshi Pattanaik

USN:1NH22EE099

NEW HORIZON
COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

(STARTUP AND ENTREPRENEURSHIP INTERNSHIP)

By

SHIVAM PANDEY

1NH22EE100

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs. **Shivam Pandey** Department of **Electrical and Electronics Engineering** bearing USN: **1NH22EE100** of New Horizon College of Engineering carried out her internship from **21/01/2026** to **21/04/2026** in the **1Stop.**

On the basis of her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of **88** marks out of 100 marks is awarded.

Date: 21/04/2026

Signature of Mentor

Name of Mentor: Kishore

Designation: Technical Program Mentor Lead Instructor

Official Email: kishore@onestop.com

NEW HORIZON COLLEGE OF ENGINEERING

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"Startup and Entrepreneurship Internship"** was carried out by **Mr. Shivam Pandey (1NH22EE100),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Sujoy Das	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor	Prof and HOD, EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Dr. S. Sujitha, NHCE	12/5/26
2. Dr. Soniya Agrawal, BMSCE	12/05/26

Company Offer Letter

To,
Shivam Pandey,
pandeyshivam2202@gmail.com

1Stop.ai
1018, 2nd Floor, 20th Cross Road, HSR Layout,
Sector-7, Bangalore, Karnataka, 560102.

Date: 02-01-2026

Subject: Offer of Internship – "Startup and Entrepreneurship Intern"

Dear **Shivam Pandey,**

We are pleased to offer you an opportunity to join **1Stop.ai** as a **"Startup and Entrepreneurship Intern"** for a Virtual Internship, effective from **10-01-2026** and duration is for **4 Months.** This internship is designed to provide you with **valuable real-time** exposure to **startup ecosystems,** entrepreneurial thinking, and business model development in a professional environment.

Roles & Responsibilities

As a Startup and Entrepreneurship Intern, your key contributions may include:

- Assisting in market research, competitor analysis, and validation of startup ideas.
- Supporting the development of business models, value propositions, and go-to-market strategies.
- Participating in brainstorming sessions for innovation, product improvement, and growth planning.
- Assisting in preparing pitch decks, business plans, and presentation materials.
- Coordinating with internal teams to support startup initiatives and project execution.

Stipend & Performance Structure

The stipend will be evaluated based on the performance and also includes:

- Quality and completion of assigned tasks
- Innovative Ideas and understanding on the Startup companies' strategy
- Contribution to project milestones
- Learning progress, consistency, and professionalism.

NEW HORIZON
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INTERNSHIP REPORT (22EEE83)

ON

BUSINESS DEVELOPMENT ASSOCIATE

By

SHREYA N

1NH22EE101

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms.__SHREYA N_, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE101 of New Horizon College of Engineering carried out her internship from _16/1/2026_to 22/5/2026_ in the EDIGLOBE TECHSPHERE PRIVATE LIMITED..

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 7-05-2026

Signature of Mentor

Name of Mentor: Vinod Kumar S

Designation: Senior Assistant Professor

Official Email:vinodks@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "Business Development Associate" was carried out by **Ms. Shreya N (1NH22EE101),** a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Vinod Kumar S	**Dr. Sujitha S**	**Dr. Manjunatha**
Senior Asst. Prof	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1 Shri. S.I.C, NHCE	12/5/26
2 Dr: Saniya Agrawal, BMSCE	12/05/26

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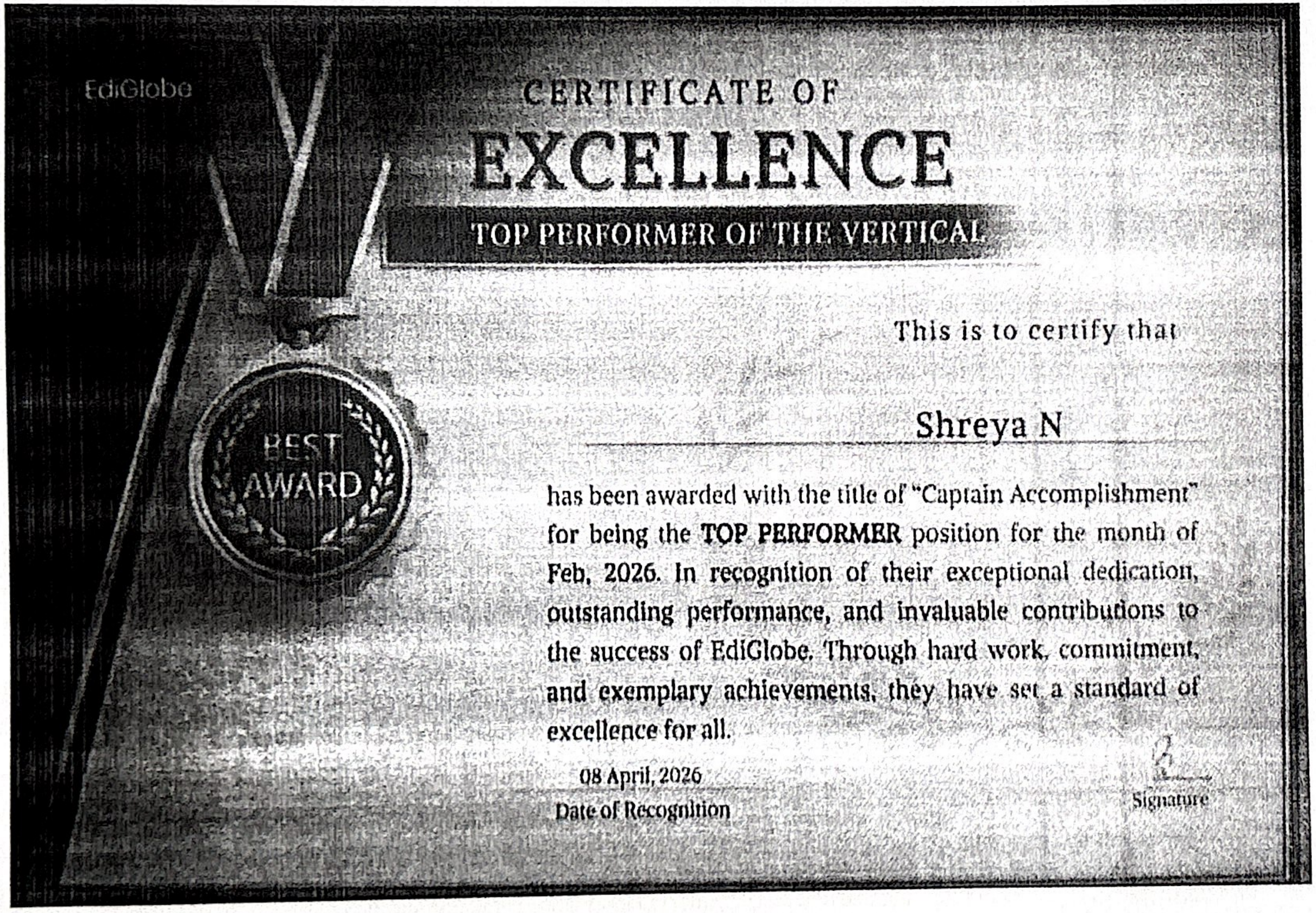
CERTIFICATE



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INTERNSHIP REPORT (22EEE83)

ON

Real-Time IoT Smart Water Level Monitoring System with OLED and Blynk

By

SHREYAS R SRINIVAS

1NH22EE104

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Shreyas R Srinivas, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE104 of New Horizon College of Engineering carried out her internship from 2/1/2026 to 12/5/2026 in the IDEA Lab.

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date: 08/05/2026

Signature of Mentor

Name of Mentor: Dr. Vinoth Kumar K

Designation: Associate Head R&D and Professor Dept. of EEE

Official Email: dr.vinothkumar@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**Real-Time IoT Smart Water Level Monitoring System with OLED and Blynk**" was carried out by **SHREYAS R SRINIVAS(1NH22EE104),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr.Vinoth Kumar K	**Dr. Sujitha S**	**Dr. Manjunatha**
Professor & Associate Head - R&D	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Sindhu, NHCE	12/5/26
2. Dr. Sanjya Agrawal	12/05/26

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Shreyas R Srinivas
1NH22EE104
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Shreyas R Srinivas,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering,** under the domain of **Internet of Things (IoT).**

Internship Details: - **Internship Title:** IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026.**

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
Principal
New Horizon College of Engineering
Ring Road, Bellandur Post, Near Marathalli
Bengaluru

Principal
New Horizon College of Engineering
Ring Road, Bellandur Post, Near Marathalli
Bangalore - 560103

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr.Vinoth Kumar K and under the supervision of Internship Supervisor (Industry) Mr.sujin Jose submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name :Shreyas R Srinivas

USN: 1NH22EE104

NEW HORIZON
COLLEGE OF ENGINEERING
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Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

Establish Communication Between Embedded Boards

By

SHUBHASHREE MM

1NH22EE105

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Shubhashree MM, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE105 of New Horizon College of Engineering carried out her internship from 27/1/2026 to 15/5/2026 in the TCS VLSI .

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: Sangeetha C N

Designation: Associate Professor, Dept of EEE

Email : sangeethasreyas@gmail.com

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled " **Establish Communication Between Embedded Boards**" was carried out by **Ms. Shubhashree MM (1NH22EE105),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Sangeetha C N	**Dr. Sujitha S**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... 12/6/26

2. Dr. Soniya Agrawal, BMSCE, ... 12/05/26

TATA

Internship Offer Letter

Ref: TCSL/AAG 2024-25/Project/CT20264885395

Date: 19-Jan-2026

Shubhashree M M
New Horizon College of Engineering, Bangalore
shubhashubhashreemm@gmail.com

Dear **Shubhashree M M ,**

Sub: Internship Offer

We are pleased to offer you internship in Tata Consultancy Services (TCS) with the following terms and conditions:

1. The tentative start date is 27-Jan-2026 and end date is 15-May-2026. These dates can be changed in discussion with the Project Guide
2. You will be assigned a Project Guide under whose supervision you will work on the project assigned to you.
3. You shall complete your project in accordance with the requirements and guidance of the TCS Project Guide, and maintain qualitative standards as required. You will maintain the discipline, dignity, honor and goodwill of TCS.
4. The arrangement is not that of an employer and an employee and as such you shall not be eligible to any allowances or other benefits as may be available to the employees of TCS.
5. You will observe the rules & regulations and discipline of TCS, and also maintain complete confidentiality and secrecy of the matters pertaining to TCS and/or any data that has been provided to you in the course of your project work. The detailed terms of Confidentiality, Data and Intellectual Property Protection are enclosed as Annexure A. You will be permitted to attend any classes in the college / university at the discretion of the Project Guide if so called for during the period of your project assignment.
6. On completion of your internship you will be required to submit a copy of your project report, which will be the sole property of TCS.
7. You shall not undertake any internship in parallel with this internship
8. In the event of any misconduct or breach of terms of this internship on the part of the Intern during the internship period, TCS reserves the right to terminate internship without any notice.
9. This offer of Internship will be governed as per the Laws of India.

TATA CONSULTANCY SERVICES
Tata Consultancy Services Limited
Yantra Park, Opp. Voltas HRD Trg. Center, Subhash Nagar, Pokhran Road No. 2, Thane (West) 400 601 India
Tel +91 22 6778 2000/2222 Fax +91 40 6778 2190 website: www.tcs.com
Registered Office Nirmal Building, 9th Floor, Nariman Point, Mumbai 400 021

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NEW HORIZON
COLLEGE OF ENGINEERING

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INTERNSHIP REPORT (22EEE83)

ON

DATA ANALYST INTERN

By

SUDEEP J

1NH22EE107

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Sudeep J, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE107 of New Horizon College of Engineering carried out his internship from 1/1/2026 to 30/4/2026 in the Elevate Labs Pvt ltd.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 85 marks out of 100 marks is awarded.

Date

Signature of Mentor

Name of Mentor: Dr. R.Mohan Das

Designation: Associate Professor

Official Email: mohandas@newhorizonindia.edu

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NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**DATA ANALYST INTERN**"was carried out by **Mr. Sudeep J (1NH22EE107),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. R.Mohan Das	**Dr. S. Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1	12/5/26
2 Dr. Soniya Agrawal, BMSCE	12/05/26

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INTERNSHIP OFFER LETTER

Dear

Date: 30 December 2025

Sudeep J

We are pleased to offer you the position of **Data Analyst Intern** at Elevate Labs, effective from **1st January 2026** to **30th April 2026**.

This internship is designed to provide structured learning, hands-on exposure, and practical experience in **data analytics through real-time projects and guided assignments** aligned with current industry standards. During the internship period, you will be expected to actively participate in assigned tasks, adhere to organizational policies, and maintain professional conduct at all times.

You will work under the guidance of experienced professionals at Elevate Labs and contribute to various data analysis activities, including but not limited to data collection, data cleaning, data transformation, exploratory data analysis, reporting, and visualization. This role is designed to enhance your analytical thinking, problem-solving abilities, and understanding of real-world data-driven decision-making workflows.

Please note that **this letter constitutes an offer of internship only**. An offer letter by itself does not represent or confirm successful completion of the internship. Any **Internship Completion Certificate and/or Letter of Recommendation shall be issued only upon successful completion** of the internship duration, satisfactory performance of all assigned responsibilities, and full compliance with the policies, standards, and guidelines of Elevate Labs.

We believe this internship will provide **valuable professional exposure** and contribute meaningfully to your career development. We look forward to welcoming you to the Elevate Labs team.

Kindly **acknowledge your acceptance of this offer** by replying to this letter.

For Elevate Labs

APPROVED
ELEVATE LABS

MSME
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COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

IOT-BASED PROJECT DEVELOPMENT

By

Sudeep Kumar Dutta

1NH22EE108

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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Internship Completion Certificate

It is certified that Mr. Sudeep Kumar Dutta Department of Electrical and Electronics Engineering bearing USN: 1NH22EE108 of New Horizon College of Engineering carried out his internship from 19/01/2026 to 30/04/2026 in the AICTE IDEA Lab. On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 82 marks out of 100 marks is awarded.

Date: 08/05/26

Signature of Mentor

Name of Mentor: Dr. B.Gunapriya

Designation: Associate Professor

Official Email: Gunapriyab@newhorizonindia.edu

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"IOT-BASED PROJECT DEVELOPMENT"** was carried out by **Mr. Sudeep Kumar Dutta (1NH22EE108),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. B.Gunapriya	**Dr. S Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof and HOD-EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

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Name of the examiners	*Signature with date*
1.	1. 12/6/25
2. Dr. Sanjya Agrawal,	2. 12/06/26

INTERNSHIP OFFER LETTER

NEW HORIZON
COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Sudeep Kumar Dutta
1NH22EE108
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Sudeep Kumar Dutta,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

We wish you a productive and enriching internship experience.

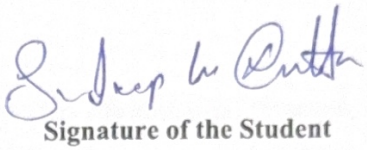
Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering
Ring Road, Bellandur Post, Bengaluru
Bangalore - 560103

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr. B.Gunapriya and under the supervision of Internship Supervisor Dr. A.Sujin Jose submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.



Signature of the Student

Student Name: Sudeep Kumar Dutta

USN: 1NH22EE108

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be impossible without the mention of the people who made it possible, whose constant guidance and encouragement crowned our efforts with success.

We have great pleasure in expressing gratitude to **Dr. Mohan Manghnani**, Chairman, New Horizon Educational Institutions, for providing necessary infrastructure and creating good environment.

We take this opportunity to express our profound gratitude to **Dr. Manjunatha,** Principal, New Horizon College of Engineering, for his constant support and encouragement.

We would like to thank **Dr. R J Anandhi**, Professor and Dean-Academics, NHCE, for her valuable guidance.

We would like to thank **Dr. Sujitha S**, Professor and HOD-EEE, Department of EEE, for her constant support.

We also express our gratitude to the internship Mentors, **Dr. Gunapriya B**, Associate Professor, Dept. of EEE and to **Dr. A.Sujin Jose,** Co-coordinator, AICTE IDEA Lab for constantly monitoring the development of the internship and setting up precise deadlines. Their valuable suggestions had been the motivating factor in completing the work.

Finally, a note of thanks to all the teaching and non-teaching staff of the department, for their cooperation extended to us, and our parents and friends, who helped us directly or indirectly in the course of the project work.

SUDEEP KUMAR DUTTA (1NH22EE108)

ABSTRACT

Access to safe drinking water is a critical requirement for public health, yet water contamination remains a persistent issue in many regions. Conventional water quality testing methods are often time-consuming, require laboratory infrastructure, and are not suitable for real-time monitoring. This project presents the design and development of a Smart Water Quality Testing Device that enables rapid, portable, and cost-effective assessment of drinking water quality using embedded systems and sensor-based technology.

The proposed system is built around the ESP32 microcontroller, which integrates processing capabilities with efficient data acquisition. Multiple sensors are employed to measure key water quality parameters, including pH, Total Dissolved Solids (TDS), and turbidity, which are essential indicators of chemical balance, dissolved impurities, and physical contamination, respectively. A temperature sensor is also incorporated to support environmental context and improve measurement reliability. The pH sensor operates through UART communication, while TDS and turbidity sensors provide analog outputs, which are processed using the microcontroller's ADC after appropriate signal conditioning.

To ensure safety and accuracy, the system design includes voltage regulation and signal scaling mechanisms to match sensor outputs with the microcontroller's operating limits. Data from the sensors is processed using calibration equations and filtering techniques such as averaging to reduce noise and fluctuations. The processed values are then compared against standards defined in the Bureau of Indian Standards (BIS IS 10500) for drinking water quality.

A key feature of this system is the computation of a Water Quality Index (WQI) expressed as a percentage. Each parameter is evaluated individually and assigned a score based on its compliance with acceptable ranges. The overall water quality percentage is calculated as the average of these scores, providing a simple and intuitive indication of water safety. The results are displayed on a 16×2 LCD in real time, along with qualitative classifications such as "Safe," "Moderate," or "Unsafe.

The developed prototype demonstrates reliable performance for on-site water testing, offering immediate feedback without the need for complex laboratory procedures. Its low cost, portability, and ease of use make it suitable for domestic, rural, and field applications. This project highlights the potential of IoT-enabled embedded systems in addressing real-world environmental monitoring challenges and promoting safe drinking water practices.

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CHAPTER 1

INTRODUCTION

1.1 Internship domain introduction

The domain of this internship lies at the intersection of Embedded Systems, Internet of Things (IoT), and Environmental Monitoring, with a specific focus on water quality assessment. In recent years, the importance of monitoring environmental parameters has increased significantly due to rapid industrialization, urbanization, and population growth. Among all environmental concerns, water quality has emerged as one of the most critical issues affecting human health, ecological balance, and sustainable development. Ensuring access to safe and clean drinking water is not only a technological challenge but also a social and economic necessity.

Water is an essential resource for all living organisms, and its quality directly influences public health and quality of life. Contaminated water can lead to various diseases such as cholera, dysentery, and other waterborne infections. In many developing regions, the lack of proper water quality monitoring systems results in the consumption of unsafe water, leading to severe health consequences. Traditional water testing methods typically involve collecting samples and analyzing them in laboratories using sophisticated equipment. While these methods provide high accuracy, they are often time-consuming, expensive, and not suitable for real-time monitoring or field applications.

The emergence of embedded systems and IoT technologies has revolutionized the way environmental monitoring is conducted. Embedded systems are specialized computing systems designed to perform dedicated functions within larger systems. They consist of microcontrollers, sensors, and software that work together to collect and process data from the physical environment. When integrated with IoT technologies, these systems can transmit data to remote servers, enabling continuous monitoring and analysis. This combination of embedded systems and IoT has paved the way for the development of smart monitoring devices that are compact, cost-effective, and capable of real-time operation.

In the context of water quality monitoring, embedded systems can be used to measure key

parameters such as pH, turbidity, Total Dissolved Solids (TDS), temperature, and other chemical or biological indicators. These parameters provide valuable information about the physical and chemical properties of water. For instance, pH indicates the acidity or alkalinity of water, turbidity measures the presence of suspended particles, and TDS reflects the concentration of dissolved substances. Monitoring these parameters is essential for determining whether water is safe for drinking and other purposes.

The internship focused on the design and development of a **Smart Water Quality Testing Device**, which utilizes embedded systems to measure and analyze water quality parameters in real time. The system is built around a microcontroller that interfaces with multiple sensors and processes the collected data. The processed information is then displayed to the user in a simple and understandable format. This approach eliminates the need for complex laboratory procedures and enables immediate assessment of water quality.

One of the key advantages of using embedded systems for water quality monitoring is their ability to provide continuous and real-time data. Unlike traditional methods, which provide results only after laboratory analysis, embedded systems can instantly detect changes in water quality and alert users. This capability is particularly useful in situations where water quality can change rapidly, such as in industrial areas or during natural disasters. Real-time monitoring allows for timely intervention and helps prevent the consumption of contaminated water.

Another important aspect of this domain is the integration of sensors with microcontrollers. Sensors play a crucial role in converting physical or chemical properties into electrical signals that can be processed by the microcontroller. Each sensor has its own working principle and output characteristics. For example, pH sensors typically produce a voltage proportional to the hydrogen ion concentration, while turbidity sensors use optical methods to detect suspended particles. Understanding the behavior of these sensors and properly interfacing them with the microcontroller is essential for obtaining accurate measurements.

The ESP32 microcontroller was used in this project due to its advanced features, including high processing speed, multiple input/output pins, and built-in communication capabilities. The ESP32 supports both analog and digital inputs, making it suitable for interfacing with a variety of sensors. It also offers low power consumption, which is important for portable and

battery-operated devices. The use of such a microcontroller enhances the efficiency and flexibility of the system.

In addition to hardware design, software development plays a significant role in this domain. The microcontroller must be programmed to read sensor data, process it using appropriate algorithms, and display the results. This involves writing code in programming languages such as C or C++ and using development environments like the Arduino IDE. The software must also handle issues such as noise, signal fluctuations, and communication errors to ensure reliable operation. Techniques such as averaging and filtering are commonly used to improve the accuracy of sensor readings.

The concept of a **Water Quality Index (WQI)** is an important component of this domain. The WQI is a numerical representation of water quality, calculated by combining multiple parameters into a single value. This simplifies the interpretation of complex data and makes it easier for users to understand the overall condition of water. In this project, the WQI is expressed as a percentage, indicating how safe the water is for drinking. The use of such indices enhances the usability of the system and makes it accessible to non-technical users.

Another significant aspect of the internship domain is the application of standards and guidelines for water quality. Various organizations have established limits for different water quality parameters to ensure safety. For example, the Bureau of Indian Standards (BIS) specifies acceptable ranges for pH, TDS, and turbidity in drinking water. These standards are used as a reference for evaluating sensor readings and determining whether the water is safe. Incorporating these standards into the system ensures that the results are meaningful and aligned with regulatory requirements.

The domain also emphasizes the importance of cost-effectiveness and portability. In many regions, especially rural areas, access to expensive laboratory equipment is limited. Therefore, there is a need for affordable devices that can perform basic water quality testing. The use of low-cost sensors and microcontrollers makes it possible to develop such devices without compromising functionality. Portability ensures that the device can be used in different locations, making it suitable for field applications.

Furthermore, this domain has significant potential for future development and innovation. The

integration of IoT can enable remote monitoring and data analysis, allowing users to access water quality information from anywhere. Data collected over time can be used to identify trends and predict potential issues. Advanced technologies such as machine learning can also be applied to improve accuracy and provide predictive insights. These developments can contribute to more efficient water management and environmental protection.

The internship also provided exposure to practical challenges associated with embedded system development. Issues such as sensor calibration, power management, and hardware compatibility were encountered and addressed during the project. For instance, ensuring that sensor outputs are within the safe operating range of the microcontroller required the use of voltage regulation and signal conditioning techniques. Similarly, fluctuations in sensor readings were mitigated using software-based filtering methods. These challenges highlight the importance of a systematic approach to design and implementation.

1.2 Overview of the Organisation

The organization associated with this internship is the AICTE IDEA Lab established at New Horizon College of Engineering. The IDEA Lab (Idea Development, Evaluation and Application Lab) is an initiative introduced by the All India Council for Technical Education with the objective of promoting innovation, creativity, and hands-on learning among engineering students across India. This initiative represents a significant step toward transforming traditional education systems into more practical, application-oriented learning environments that align with industry requirements and emerging technological trends.

The AICTE IDEA Lab is designed as an open, multidisciplinary workspace where students from different engineering backgrounds can collaborate, experiment, and develop innovative solutions to real-world problems. Unlike conventional laboratories that focus on predefined experiments, the IDEA Lab encourages students to explore their ideas independently and work on projects that involve creativity, design thinking, and problem-solving. This shift from theory-based learning to experiential learning is crucial in preparing students for modern engineering challenges.

New Horizon College of Engineering, located in Bengaluru, is a well-established institution known for its commitment to academic excellence, innovation, and industry-oriented

education. The institution provides a conducive environment for learning and research, supported by experienced faculty, modern infrastructure, and strong industry connections. The establishment of the AICTE IDEA Lab within the campus further enhances the institution's capability to deliver practical education and foster innovation among students.

The IDEA Lab at New Horizon College of Engineering is equipped with a wide range of advanced tools, instruments, and resources required for prototyping and product development. These include microcontrollers, sensors, electronic components, development boards, and testing equipment. The lab also provides access to software tools and development environments that support programming, simulation, and data analysis. This comprehensive infrastructure enables students to design, build, and test their projects effectively.

One of the key objectives of the IDEA Lab is to bridge the gap between academic knowledge and industry requirements. In traditional education systems, students often focus on theoretical concepts without gaining sufficient practical exposure. As a result, they may face challenges when applying their knowledge in real-world scenarios. The IDEA Lab addresses this issue by providing hands-on learning opportunities that allow students to apply theoretical concepts to practical problems. This approach enhances their understanding and prepares them for professional careers.

The lab promotes an interdisciplinary approach to learning, where students from different branches of engineering collaborate on projects. This encourages the exchange of ideas and knowledge, leading to innovative solutions that integrate concepts from multiple disciplines. For example, a project involving environmental monitoring may require knowledge of electronics, programming, data analysis, and environmental science. By working in teams, students can leverage their diverse skills and develop comprehensive solutions.

Another important aspect of the IDEA Lab is its focus on innovation and entrepreneurship. Students are encouraged to develop prototypes that can be transformed into commercial products or startup ventures. The lab provides guidance and support for idea development, design optimization, and implementation. It also helps students understand the process of product development, including market analysis, feasibility studies, and commercialization. This exposure to entrepreneurship is valuable for students who aspire to start their own

ventures in the future.

The mentorship provided in the IDEA Lab plays a crucial role in guiding students throughout their projects. Faculty members and technical experts provide support in various aspects, including circuit design, programming, debugging, and system integration. Their experience and expertise help students overcome challenges and improve the quality of their work. Regular interactions with mentors also provide opportunities for feedback and continuous improvement.

The IDEA Lab also emphasizes the importance of documentation and presentation skills. Students are required to maintain proper records of their work, including design details, code structure, and test results. This documentation is essential for understanding the development process and for future reference. Additionally, students are encouraged to present their projects effectively, which helps in developing communication skills and confidence.

The organizational structure of the IDEA Lab is designed to facilitate efficient operation and collaboration. It includes coordinators, faculty mentors, technical staff, and students working together to achieve common goals. The lab operates as a collaborative environment where students can freely share ideas, seek assistance, and work on their projects. This collaborative culture fosters creativity and innovation.

The AICTE IDEA Lab initiative also aligns with national and global goals related to technological advancement and sustainable development. By promoting innovation and practical learning, it contributes to the development of skilled engineers who can address complex challenges in various fields. Projects developed in the lab often focus on real-world issues such as environmental monitoring, healthcare, smart systems, and renewable energy. This ensures that the work carried out in the lab has a positive impact on society.

During the internship, the IDEA Lab provided all the necessary resources and support required for the development of the Smart Water Quality Testing Device. The availability of sensors, microcontrollers, and other components enabled the creation of a functional prototype. The lab environment encouraged experimentation and iterative improvement, allowing the system to be refined and optimized.

1.3 Background and Motivation

Access to safe and clean drinking water is a fundamental requirement for human survival, public health, and sustainable development. Despite significant advancements in infrastructure and water treatment technologies, ensuring consistent water quality remains a major challenge, particularly in developing regions such as India. Rapid industrialization, urban expansion, agricultural runoff, and inadequate waste management have led to the contamination of many natural and groundwater sources. As a result, monitoring water quality has become increasingly important to prevent health hazards and maintain ecological balance.

Water contamination can occur due to a variety of factors, including chemical pollutants, biological contaminants, and physical impurities. Chemical contamination often arises from industrial discharge, heavy metals, and excessive use of fertilizers and pesticides in agriculture. Biological contamination is typically caused by bacteria, viruses, and other microorganisms that can lead to waterborne diseases. Physical impurities such as suspended particles affect the clarity and usability of water. These contaminants can have serious consequences on human health, causing diseases such as cholera, typhoid, and dysentery. Therefore, regular monitoring of water quality is essential to ensure that it meets the required safety standards.

Traditionally, water quality testing has been carried out using laboratory-based methods. These methods involve collecting water samples and analyzing them using specialized equipment under controlled conditions. While laboratory testing provides accurate and reliable results, it has several limitations. The process is time-consuming, requires skilled personnel, and involves significant costs. Moreover, it does not provide real-time data, making it unsuitable for continuous monitoring. In many cases, by the time the results are obtained, the water may have already been consumed, posing a risk to public health.

In rural and remote areas, access to laboratory testing facilities is often limited or nonexistent. People in these regions rely on natural water sources such as wells, rivers, and borewells, which may be contaminated. Due to a lack of awareness and resources, they may not be able to assess the quality of the water they consume. This highlights the need for portable, affordable, and easy-to-use water quality testing solutions that can be used at the point of consumption.

The emergence of embedded systems and sensor technologies has opened new possibilities for

addressing this challenge. Embedded systems are compact computing devices that can perform specific tasks efficiently. When combined with sensors, they can be used to monitor environmental parameters in real time. Sensors are capable of detecting physical and chemical properties of water and converting them into electrical signals that can be processed by a microcontroller. This enables the development of smart devices that can measure water quality parameters instantly and provide immediate feedback to users.

One of the key motivations for this project is the ability to measure multiple water quality parameters simultaneously using a single device. Parameters such as pH, Total Dissolved Solids (TDS), and turbidity are essential indicators of water quality. The pH value indicates whether the water is acidic or alkaline, which affects its suitability for drinking. TDS measures the concentration of dissolved substances, which can impact taste and safety. Turbidity indicates the presence of suspended particles, which may harbor harmful microorganisms. By measuring these parameters together, a more comprehensive assessment of water quality can be achieved.

Another important motivation is the need to simplify complex data into an easily understandable format. Raw sensor readings may not be meaningful to non-technical users. Therefore, it is necessary to process the data and present it in a user-friendly manner. The concept of a Water Quality Index (WQI) addresses this need by combining multiple parameters into a single value, often expressed as a percentage. This allows users to quickly determine whether the water is safe, moderate, or unsafe for consumption. Such simplification enhances usability and encourages wider adoption of the technology.

The use of low-cost components is also a significant motivating factor. High-end water testing equipment is often expensive and not accessible to everyone. By using affordable sensors and microcontrollers, it is possible to develop a cost-effective solution that can be used by individuals, communities, and small organizations. This makes the technology more inclusive and accessible, especially in resource-constrained environments.

Another motivation behind this project is the growing emphasis on sustainable development and environmental conservation. Monitoring water quality is essential for protecting natural resources and ensuring their sustainable use. By providing a tool for regular monitoring, this

project contributes to the early detection of contamination and helps in taking corrective measures. This aligns with global initiatives aimed at ensuring clean water and sanitation for all.

The integration of modern technologies such as IoT further enhances the potential of such systems. Although this project focuses on a standalone device, the same concept can be extended to include remote monitoring and data analysis. IoT-enabled systems can transmit data to cloud platforms, allowing users to access information from anywhere. This can be particularly useful for large-scale monitoring of water bodies and distribution systems.

From an educational perspective, this project serves as a practical application of concepts learned in engineering courses. It involves the integration of hardware and software, requiring knowledge of electronics, programming, and data processing. Working on such a project provides hands-on experience and helps in developing problem-solving skills. It also encourages innovation and creativity, as students are required to design and implement their own solutions.

The challenges encountered during the development process also contribute to the motivation behind this project. Issues such as sensor calibration, signal noise, and power management require careful consideration and innovative solutions. Overcoming these challenges provides valuable learning experiences and improves the overall quality of the system. It also highlights the importance of a systematic approach to engineering design.

1.4 Objectives of the Project

The primary objective of this project is to design and develop a Smart Water Quality Testing Device that can efficiently monitor and evaluate the quality of drinking water in real time. The project focuses on creating a system that is not only technically sound but also practical, affordable, and user-friendly. In today's world, where water contamination is a growing concern, the need for accessible and reliable water quality monitoring systems has become increasingly important. This project aims to address that need by integrating embedded systems, sensor technology, and data processing techniques into a single functional device.

One of the foremost objectives of the project is to measure essential water quality parameters

that determine the safety of drinking water. These parameters include pH, Total Dissolved Solids (TDS), and turbidity, which are widely recognized indicators of water quality. The pH value helps in identifying whether the water is acidic or alkaline, which can affect both health and infrastructure. TDS provides information about the concentration of dissolved substances such as salts and minerals, which influence the taste and safety of water. Turbidity indicates the presence of suspended particles that may carry harmful microorganisms. By measuring these parameters simultaneously, the system provides a comprehensive assessment of water quality.

Another important objective is to develop a real-time monitoring system that provides instant feedback to the user. Unlike traditional laboratory-based testing methods, which involve delays and require specialized equipment, this project aims to deliver immediate results. Real-time monitoring is particularly useful in situations where water quality can change rapidly, allowing users to take timely action. The system is designed to continuously acquire data from sensors, process it, and display the results without any significant delay.

The project also aims to implement an effective data processing mechanism to convert raw sensor outputs into meaningful values. Sensor readings are often affected by noise, environmental conditions, and variations in calibration. Therefore, it is essential to apply appropriate algorithms and mathematical models to ensure accuracy and stability. Techniques such as averaging and filtering are used to reduce fluctuations and improve reliability. The processed data is then converted into standard units, making it easier to interpret and compare with established guidelines.

A key objective of the project is to develop a Water Quality Index (WQI) that simplifies the interpretation of multiple parameters. Instead of presenting raw data, the system calculates a percentage value that represents the overall quality of water. This percentage is derived by evaluating each parameter against acceptable limits and combining the results into a single index. The WQI provides a clear and concise indication of whether the water is safe, moderate, or unsafe for drinking. This approach enhances usability and ensures that even non-technical users can understand the results بسهولة.

Another objective is to ensure that the system is aligned with established water quality

standards. The project takes into consideration the guidelines provided by organizations such as the Bureau of Indian Standards (BIS) for drinking water quality. These standards define acceptable ranges for parameters such as pH, TDS, and turbidity. By incorporating these standards into the system, the results become more meaningful and relevant. This also ensures that the device can be used as a reliable reference for assessing water safety.

The project also aims to design a user-friendly interface that makes the system easy to operate. A 16×2 LCD display is used to present the measured values and water quality status. The interface is designed to display information in a clear and organized manner, including parameter values, units, and qualitative classifications. The use of simple messages such as “Safe,” “Moderate,” and “Unsafe” ensures that users can quickly understand the results without requiring technical knowledge.

Another significant objective is to develop a portable and cost-effective solution for water quality monitoring. In many regions, especially rural areas, access to expensive laboratory equipment is limited. Therefore, the system is designed using low-cost components such as sensors and microcontrollers, making it affordable for a wide range of users. Portability ensures that the device can be used in different locations, allowing users to test water samples on-site without the need for transportation.

The project also focuses on ensuring the safety and reliability of the hardware design. Since the system involves the use of electronic components and sensors, proper voltage regulation and signal conditioning are essential. The use of a DC-DC buck converter ensures that all components receive stable and appropriate voltage levels. Voltage divider circuits are used to protect the microcontroller from high voltage signals generated by sensors. These measures help in preventing damage to components and ensure consistent performance.

Another important objective is to enhance system stability and accuracy through calibration and testing. Sensors may produce varying outputs due to environmental factors and manufacturing differences. Therefore, calibration is necessary to align the sensor readings with standard values. The system is tested with different water samples to verify its performance and make necessary adjustments. This iterative process of testing and refinement ensures that the final system delivers reliable results.

The project also aims to provide a platform for learning and skill development. It involves the application of concepts from multiple disciplines, including electronics, programming, and environmental science. Working on this project helps in developing technical skills such as circuit design, sensor interfacing, and embedded programming. It also enhances problem-solving abilities and encourages innovative thinking. The experience gained from this project is valuable for future academic and professional endeavors.

Another objective is to demonstrate the practical application of embedded systems in solving real-world problems. The project highlights how technology can be used to address issues related to public health and environmental monitoring. By developing a functional prototype, the project showcases the potential of embedded systems in creating efficient and user-friendly solutions.

The project also considers the possibility of future enhancements and scalability. While the current system focuses on basic water quality parameters, it can be extended to include additional sensors for measuring parameters such as dissolved oxygen, conductivity, and microbial content. The system can also be integrated with IoT technologies to enable remote monitoring and data analysis. These enhancements can further improve the functionality and applicability of the system.

Another objective is to promote awareness about water quality and its impact on health. By providing an easy-to-use device, the project encourages individuals to regularly monitor the quality of water they consume. This can lead to better decision-making and improved health outcomes. The project also highlights the importance of maintaining clean water sources and adopting sustainable practices.

CHAPTER 2

ACTIVITIES CARRIED OUT DURING INTERNSHIP

2.1 Module description

The Smart Water Quality Testing Device developed during this internship is designed as a **modular embedded system**, where each module performs a specific function while contributing to the overall operation of the system. The modular approach ensures better organization, easier troubleshooting, scalability, and efficient system performance. The complete system is divided into several functional modules, including the Sensor Acquisition Module, Data Processing Module, Communication Module, Display Module, and Decision-Making Module. Each of these modules works in coordination to provide accurate and real-time water quality analysis.

The first and most critical module is the **Sensor Acquisition Module**. This module is responsible for collecting real-time data from various sensors that measure different water quality parameters. The system uses multiple sensors, including a pH sensor, Total Dissolved Solids (TDS) sensor, turbidity sensor, and a temperature sensor. Each of these sensors operates on different principles and provides either analog or digital outputs. The pH sensor measures the acidity or alkalinity of water and communicates with the microcontroller using UART communication. The TDS and turbidity sensors provide analog voltage outputs proportional to the concentration of dissolved solids and suspended particles, respectively. The temperature sensor measures ambient temperature, which can influence the accuracy of certain readings. The proper functioning of this module is essential, as it forms the foundation for all subsequent processing.

The second module is the **Data Processing Module**, which is implemented within the microcontroller, specifically the ESP32. This module takes raw data from the sensors and converts it into meaningful values. Since sensor outputs are often noisy and unstable, the system applies data processing techniques such as averaging multiple readings to reduce fluctuations. Mathematical formulas and calibration factors are used to convert analog signals into standard units such as pH values, parts per million (ppm) for TDS, and Nephelometric

Turbidity Units (NTU) for turbidity. This module also ensures that the data is filtered and stabilized before further analysis. The accuracy and reliability of the system largely depend on the effectiveness of this module.

The third module is the **Communication Module**, which manages the exchange of data between sensors and the microcontroller. Different sensors use different communication methods, and the system must handle each appropriately. The pH sensor communicates using UART (Universal Asynchronous Receiver-Transmitter), which involves serial data transmission through TX and RX pins. The TDS and turbidity sensors use analog communication, where the microcontroller reads voltage levels through its ADC (Analog-to-Digital Converter). The communication module ensures that data is received correctly, without loss or corruption. It also handles timing and synchronization, ensuring that sensor readings are taken at appropriate intervals.

The fourth module is the **Display Module**, which provides a user interface for the system. A 16×2 LCD display is used to present the processed data in a clear and organized manner. The display module shows parameters such as pH, TDS, turbidity, temperature, and overall water quality percentage. The information is displayed in a sequential format to ensure readability within the limited screen space. This module is designed to be user-friendly, allowing even non-technical users to understand the results بسهولة. The clarity and simplicity of the display are important for effective communication of information.

The fifth module is the **Decision-Making Module**, which evaluates the processed data and determines the quality of water. This module compares the measured values with predefined standards, such as those specified by the Bureau of Indian Standards (BIS) for drinking water. Each parameter is assigned a score based on its deviation from the acceptable range. These scores are then combined to calculate a Water Quality Index (WQI), expressed as a percentage. Based on this percentage, the system classifies the water as “Safe,” “Moderate,” or “Unsafe.” This module simplifies complex data into an easily understandable format, making the system practical for everyday use.

Another important aspect of the module design is the **Power Management Module**. The

system is powered by a battery source, and a DC-DC buck converter (LM2596) is used to regulate the voltage. Proper power management ensures that all components receive stable and appropriate voltage levels. This is particularly important for the ESP32 microcontroller, which operates at 3.3V logic levels. Voltage divider circuits are used for analog sensors to prevent high voltage signals from damaging the microcontroller. Efficient power management contributes to the reliability and longevity of the system.

The modular design also facilitates **scalability and future enhancements**. Additional sensors or functionalities can be integrated into the system without significant changes to the existing design. For example, sensors for measuring dissolved oxygen, conductivity, or microbial content can be added to provide a more comprehensive analysis of water quality. The modular approach allows for easy modification and expansion, making the system adaptable to different applications.

Another advantage of the modular design is **ease of debugging and maintenance**. If a particular module fails or produces incorrect results, it can be isolated and tested independently. This reduces the complexity of troubleshooting and helps in identifying the root cause of the problem. Each module can be developed and tested separately before integrating it into the complete system, ensuring better reliability.

The integration of all modules results in a cohesive system that performs real-time water quality monitoring. The sensor acquisition module collects data, the communication module transfers it to the microcontroller, the data processing module converts it into meaningful values, the decision-making module evaluates the results, and the display module presents the information to the user. This coordinated operation ensures that the system functions efficiently and provides accurate results.

2.2 Database / hardware description

The Smart Water Quality Testing Device developed during this internship is primarily a **hardware-oriented system**, where the focus is on sensor integration, signal processing, and embedded system design rather than the use of a conventional database. However, the system can be considered to have a minimal data-handling layer, where sensor readings are processed, temporarily stored, and displayed in real time. The overall architecture consists of multiple

hardware components working together to measure, process, and present water quality parameters efficiently.

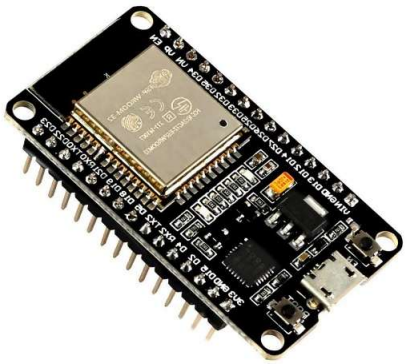

Fig 2.1

At the core of the system is the **ESP32 microcontroller**, which acts as the central processing unit. It is responsible for acquiring data from sensors, performing calculations, and controlling the display unit. The ESP32 is selected due to its high performance, multiple input/output pins, built-in analog-to-digital converters (ADC), and efficient power consumption. It supports both analog and digital communication, making it suitable for interfacing with a variety of sensors used in the project.

Fig 2.2

The **pH sensor module** is one of the key components of the system. It is used to measure the acidity or alkalinity of water, which is an important parameter for determining water safety. The sensor used in this project communicates with the ESP32 through UART (serial communication). It provides structured output data that includes pH values and additional parameters. Proper calibration is required to convert the sensor output into accurate pH values. The pH sensor probe is designed to be immersed in water, while the electronic module remains

outside to prevent damage.

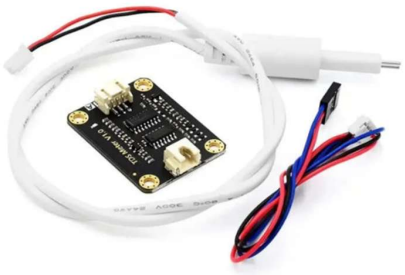

Fig 2.3

The **Total Dissolved Solids (TDS) sensor** is used to measure the concentration of dissolved substances in water. It provides an analog voltage output that is proportional to the level of dissolved solids. This output is read by the ESP32 using its ADC. Since the sensor operates at a higher voltage level than the microcontroller can safely handle, a voltage divider circuit is used to scale down the signal. The TDS value is calculated using a mathematical formula that converts the analog voltage into parts per million (ppm), providing an estimate of water purity.

Fig 2.4

The **turbidity sensor** is another important component that measures the clarity of water. It works on the principle of light scattering, where the presence of suspended particles affects the amount of light passing through the water. The sensor outputs an analog signal, which is again processed by the ESP32's ADC. Similar to the TDS sensor, a voltage divider is used to ensure

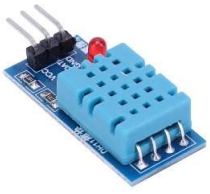

Fig 2.5

safe signal levels. The turbidity value is mapped to a scale that indicates the level of water contamination.

The system also includes a **temperature sensor (DHT11)**, which measures the ambient temperature. Although it does not directly measure water temperature, it provides environmental context that can influence sensor readings. The DHT11 communicates with the ESP32 using a digital signal and requires minimal interfacing. Temperature data is used to enhance the reliability of the system and can be considered for future improvements such as temperature compensation.

Fig 2.6

For user interaction, a **16×2 LCD display** is used as the output device. It is interfaced with the ESP32 using digital pins and displays real-time values of pH, TDS, turbidity, temperature, and overall water quality percentage. The LCD provides a simple and effective way to present information, making the system accessible to users without technical expertise.

Fig 2.7

Power management is an essential part of the hardware design. The system is powered using **Li-ion batteries**, and a **DC-DC buck converter (LM2596)** is used to regulate the voltage. This ensures that all components receive stable and appropriate voltage levels. The ESP32 operates at 3.3V logic, while some sensors require 5V supply. Proper voltage regulation prevents damage to components and ensures consistent performance.

Fig 2.8

fig 2.9

Additional hardware components include **resistors, jumper wires, and voltage divider circuits**, which are used for signal conditioning and circuit connections. The voltage divider circuits play a crucial role in protecting the microcontroller from high voltage signals generated by analog sensors. Proper wiring and grounding are also important to minimize noise and ensure accurate readings.

From a data handling perspective, the system does not use a traditional database. Instead, it performs **real-time data acquisition and processing**, where sensor readings are temporarily stored in variables within the microcontroller's memory. These values are processed immediately and displayed on the LCD. This approach eliminates the need for external storage and simplifies the system design. However, the system can be extended in the future to include data logging or cloud storage using IoT technologies.

2.3 Tools used

The development of the Smart Water Quality Testing Device involved the use of a combination of software and hardware tools that facilitated the design, implementation, testing, and debugging of the system. These tools played a crucial role in ensuring the successful completion of the project and provided a platform for efficient development and experimentation.

One of the primary software tools used in this project is the Arduino IDE (Integrated Development Environment). It provides a user-friendly interface for writing, compiling, and uploading code to the ESP32 microcontroller. The Arduino IDE supports multiple libraries and frameworks that simplify the process of interfacing with sensors and display modules. It allows developers to focus on logic and functionality without worrying about low-level hardware

complexities. The IDE also includes features such as syntax highlighting, error detection, and serial communication tools, which are essential for efficient coding and debugging.

The programming for this project was carried out using the **C/C++ programming language**, which is widely used in embedded systems development. This language provides flexibility and control over hardware components, making it suitable for real-time applications. The use of structured programming techniques and modular code design helped in organizing the program into different functional blocks, such as sensor reading, data processing, and display control.

Another important tool used during development is the **Serial Monitor**, which is integrated within the Arduino IDE. The Serial Monitor allows real-time observation of data being transmitted between the microcontroller and the computer. It was extensively used for debugging purposes, especially for verifying sensor outputs and communication protocols. For example, the UART-based pH sensor data was analyzed using the Serial Monitor to understand its format and apply appropriate parsing logic. This tool proved invaluable in identifying and resolving issues related to data acquisition and processing.

On the hardware side, **breadboards** were used during the initial stages of development to prototype the circuit. Breadboards allow temporary connections without soldering, making it easy to modify and test different configurations. This flexibility is particularly useful during the design phase, where multiple iterations are required to achieve the desired functionality. Once the circuit was finalized, more stable connections could be made using soldering techniques.

Jumper wires were used to establish connections between various components, including sensors, microcontroller, and display modules. Different types of jumper wires, such as male-to-male, male-to-female, and female-to-female, were used depending on the requirements of the circuit. Proper wiring is essential for ensuring reliable communication and preventing connection issues.

A **digital multimeter** was another essential tool used in the project. It was used to measure

voltage levels, check continuity, and verify the proper functioning of power supply circuits. The multimeter helped in ensuring that the voltage output from the battery and buck converter was within the required range. It also assisted in troubleshooting issues related to power supply and signal levels.

The **LM2596 DC-DC buck converter** was used as a power management tool to regulate voltage from the battery source. Since the ESP32 and sensors operate at different voltage levels, it was necessary to provide a stable and appropriate voltage supply. The buck converter allows adjustment of output voltage, ensuring that the system operates safely and efficiently. Proper power management is critical for preventing damage to components and maintaining consistent performance.

In addition to these tools, **resistors and voltage divider circuits** were used for signal conditioning. These components ensure that analog signals from sensors are within the safe operating range of the ESP32's ADC pins. Although simple, these components play a vital role in protecting the microcontroller and improving the accuracy of sensor readings.

For assembling the final prototype, **soldering tools** such as a soldering iron, solder wire, and flux were used. Soldering provides permanent and reliable connections, making the circuit more robust and suitable for practical use. Proper soldering techniques are important to avoid loose connections and ensure long-term stability.

The project also involved the use of **sensor modules and development boards**, which are considered essential hardware tools. These modules are designed for easy integration and come with built-in circuitry that simplifies interfacing. Using such modules reduces development time and minimizes the complexity of circuit design.

Another important aspect of the tools used is the **testing and calibration process**. Various water samples were used to test the performance of the system and verify the accuracy of sensor readings. This practical testing helped in fine-tuning the system and ensuring that it meets the required standards.

Overall, the combination of software and hardware tools enabled the successful development of the Smart Water Quality Testing Device. Each tool played a specific role in the project, from coding and debugging to circuit design and testing. The effective use of these tools not only ensured the functionality of the system but also enhanced the learning experience by providing hands-on exposure to real-world engineering practices.

2.4 Module implementation

The implementation of the Smart Water Quality Testing Device involved integrating all modules into a single functional system. The process began with assembling the hardware components and establishing proper connections between sensors and the microcontroller.
The first step was interfacing the sensors with the ESP32. The pH sensor was connected using UART communication, while the TDS and turbidity sensors were connected to analog input pins through voltage divider circuits. The temperature sensor was connected to a digital pin. Proper wiring and power supply connections were ensured to avoid damage and ensure reliable operation.

Once the hardware setup was complete, the software implementation was carried out. The program was developed using the Arduino IDE and uploaded to the ESP32. The code was structured into functions for reading sensor data, processing values, and displaying results.
To improve accuracy, data processing techniques such as averaging were implemented. Multiple readings were taken from each sensor, and the average value was calculated to reduce noise and fluctuations. Calibration formulas were applied to convert raw sensor data into meaningful physical values.

The next step involved implementing the water quality evaluation logic. Each parameter was compared against standard limits, and a percentage score was assigned based on its deviation from ideal values. The overall water quality percentage was calculated as the average of individual parameter scores.

The display module was then implemented to present the results on the LCD. The system was programmed to display different parameters sequentially, followed by the overall water quality percentage and classification. This ensured that the user could easily understand the results.

Finally, the system was tested using different water samples to verify its functionality. Adjustments were made to improve accuracy and stability. The final prototype successfully demonstrated real-time water quality monitoring with clear and user-friendly output.

Furthermore, the implementation emphasized modularity and scalability. Each functional block of the system was designed independently, allowing for easy modification or expansion in the future. For example, additional sensors such as dissolved oxygen or conductivity sensors can be integrated without major changes to the existing system. This modular design approach makes the system flexible and adaptable to different applications.

Finally, the completed system was evaluated in terms of performance, accuracy, and usability. The results demonstrated that the device is capable of providing real-time water quality assessment with reasonable accuracy for a low-cost prototype. The implementation successfully achieved the project objectives and provided valuable insights into the practical challenges of embedded system design. This experience highlights the importance of careful planning, systematic testing, and continuous improvement in engineering projects.

CHAPTER 3

GENERAL ROLES AND RESPONSIBILITIES

3.1 Role as an intern

During the internship at the AICTE IDEA Lab located within New Horizon College of Engineering, my role as an intern was centered around the design, development, and implementation of a Smart Water Quality Testing Device. The internship provided a practical platform to apply theoretical knowledge in embedded systems, electronics, and programming to a real-world problem. As an intern, I was expected to actively participate in all stages of the project lifecycle, including planning, design, development, testing, and documentation.

One of the primary aspects of my role was to **understand the problem domain and define system requirements**. This involved studying water quality parameters such as pH, Total Dissolved Solids (TDS), and turbidity, and understanding their importance in determining the safety of drinking water. I researched standard guidelines and acceptable ranges for these parameters and used this information to design the system logic. This phase required analytical thinking and the ability to translate real-world problems into technical solutions.

Another key responsibility was **component selection and system design**. I evaluated different sensors and microcontrollers based on their specifications, cost, and compatibility. The ESP32 microcontroller was chosen for its versatility and performance, while appropriate sensors were selected to measure the required parameters. I was involved in designing the circuit layout, ensuring proper connections, and planning the integration of all components into a single system. This step required a clear understanding of electronic components and their working principles.

The internship also involved extensive work on **hardware implementation**. I assembled the circuit using breadboards, jumper wires, and electronic components. Special attention was given to power management and signal conditioning to ensure safe operation. For example, voltage divider circuits were used to scale down sensor outputs to match the input limits of the microcontroller. I also ensured proper grounding and wiring to minimize noise and improve

system stability. This hands-on experience helped me develop practical skills in circuit design and hardware troubleshooting.

A significant part of my role was **software development and programming**. Using the Arduino IDE, I wrote code to interface the sensors with the ESP32, process the data, and display the results on an LCD. This involved implementing communication protocols such as UART for the pH sensor and analog-to-digital conversion for TDS and turbidity sensors. I also developed algorithms to filter noise, average sensor readings, and calculate meaningful values such as the Water Quality Index (WQI). Debugging and optimizing the code were essential tasks to ensure reliable system performance.

Testing and troubleshooting were integral parts of my role as an intern. During the development process, several challenges were encountered, including unstable sensor readings, incorrect data interpretation, and hardware compatibility issues. I used tools such as the Serial Monitor to analyze sensor outputs and identify errors in the code. By systematically testing each module and making necessary adjustments, I was able to improve the accuracy and stability of the system. This iterative process enhanced my problem-solving skills and taught me the importance of patience and attention to detail.

In addition to technical tasks, I was responsible for **data interpretation and decision-making logic**. The system was designed to evaluate water quality based on predefined standards and present the results in a user-friendly format. I implemented logic to classify water as “Safe,” “Moderate,” or “Unsafe” based on sensor readings. This required a clear understanding of how to convert raw data into meaningful information that can be easily understood by users.

Documentation was another important aspect of my role. I maintained detailed records of the project, including circuit diagrams, code structure, and test results. Proper documentation ensures that the development process is transparent and can be replicated or improved in the future. It also helps in presenting the project effectively during evaluations and discussions.
The internship also required effective **time management and task prioritization**. Since the project had to be completed within a limited timeframe, I planned my activities carefully and ensured that each stage of development was completed on schedule. This involved setting

milestones, monitoring progress, and making adjustments when necessary. Time management is a critical skill in engineering projects, and this experience helped me improve my ability to meet deadlines.

Collaboration and communication were also important aspects of my role. I interacted with mentors and peers to discuss ideas, seek guidance, and resolve issues. Feedback from mentors helped in improving the design and implementation of the system. Working in a collaborative environment enhanced my communication skills and provided exposure to different perspectives.

Overall, my role as an intern was comprehensive and involved multiple responsibilities across hardware and software domains. The experience provided valuable insights into the practical aspects of engineering and helped me develop both technical and soft skills. It also strengthened my confidence in handling complex projects and prepared me for future challenges in the field of technology and innovation.

3.2 Responsibilities as an intern

During the internship at the AICTE IDEA Lab hosted within New Horizon College of Engineering, I was entrusted with a range of responsibilities that contributed to the successful development of the Smart Water Quality Testing Device. These responsibilities spanned across technical implementation, problem-solving, documentation, and professional conduct. They required a combination of theoretical understanding, practical skills, and disciplined execution.

One of the primary responsibilities was **hardware assembly and circuit integration**. I was responsible for correctly connecting all components, including the ESP32 microcontroller, sensors, display module, and power supply units. This involved understanding circuit diagrams, ensuring proper pin configurations, and maintaining safe voltage levels. Special care was taken to implement voltage divider circuits for analog sensors such as TDS and turbidity to protect the microcontroller from high voltage inputs. Any mistake in wiring could result in malfunction or damage to components, making accuracy and attention to detail essential.

Another key responsibility was **sensor interfacing and calibration**. Each sensor used in the

project had its own working principle and output characteristics. I was responsible for correctly interfacing these sensors with the microcontroller and ensuring that they produced meaningful readings. Calibration was particularly important for the pH sensor, as its output needed to be adjusted to match standard reference values. This required testing the sensor with known samples and applying correction factors in the code. Proper calibration ensured that the system provided reliable and accurate results.

The internship also required me to take responsibility for **software development and debugging**. Using the Arduino IDE, I developed code to read sensor data, process it, and display the results on the LCD. This included implementing communication protocols such as UART for the pH sensor and analog-to-digital conversion for other sensors. Debugging was a critical part of this process, as initial readings often contained noise or errors. I used tools like the Serial Monitor to analyze data and identify issues in the code. Iterative testing and refinement were necessary to achieve stable and accurate outputs.

Another important responsibility was **data processing and algorithm implementation**. Raw sensor readings are often not directly useful, so it was necessary to apply mathematical formulas and filtering techniques to convert them into meaningful values. I implemented averaging methods to reduce fluctuations and improve stability. Additionally, I developed logic to calculate the Water Quality Index (WQI) as a percentage, which provides a simplified representation of water quality. This required careful consideration of standard parameter ranges and their impact on overall water safety.

I was also responsible for **ensuring system reliability and safety**. This involved verifying that all components operated within their specified limits and that the system was free from potential hazards. Proper power management was implemented using a buck converter to regulate voltage, and connections were checked regularly to prevent short circuits or loose contacts. Maintaining system stability was essential for consistent performance and accurate results.

Documentation was another significant responsibility during the internship. I maintained detailed records of the project, including circuit diagrams, code structure, calibration

procedures, and test results. Proper documentation is important for understanding the development process and for future reference. It also plays a crucial role in presenting the project effectively during evaluations and report submissions.

In addition to technical responsibilities, I was expected to maintain **professional discipline and work ethics**. This included being punctual, adhering to lab rules, and maintaining a clean and organized workspace. Proper handling of equipment and adherence to safety guidelines were essential to ensure a productive working environment. Respecting deadlines and completing assigned tasks on time were also important aspects of professional responsibility.
Another responsibility was **continuous learning and skill development**. The internship environment encouraged exploration and experimentation, and I was expected to actively learn new concepts and technologies. This included understanding sensor working principles, exploring new programming techniques, and staying updated with advancements in embedded systems. This proactive approach to learning helped in improving both technical and analytical skills.

Collaboration and communication were also key responsibilities. I regularly interacted with mentors and peers to discuss project progress, seek guidance, and resolve challenges. Effective communication ensured that issues were addressed promptly and that the project progressed smoothly. Working in a team environment also helped in developing interpersonal skills and understanding the importance of collaboration in engineering projects.

Finally, I was responsible for **testing and validation of the system**. This involved using different water samples to evaluate the performance of the device and verify its accuracy. Based on the test results, necessary adjustments were made to improve the system. This process ensured that the final prototype met the project objectives and performed reliably under different conditions.

CHAPTER 4

SKILLS ACQUIRED

4.1 Techinical skills

During the course of the internship at the AICTE IDEA Lab within New Horizon College of Engineering, I acquired a wide range of technical skills that are essential for the design and development of embedded systems and real-time monitoring devices. The project on the Smart Water Quality Testing Device provided hands-on exposure to both hardware and software aspects of engineering, enabling a comprehensive understanding of system development from concept to implementation.

One of the most significant technical skills developed during the internship was **embedded systems design and programming**. Working with the ESP32 microcontroller helped in understanding its architecture, pin configuration, and capabilities. I learned how to interface various sensors with the microcontroller, manage input/output operations, and handle real-time data processing. The ability to program the microcontroller using the Arduino IDE enhanced my understanding of embedded C/C++ programming. I gained experience in writing structured code, using libraries, and organizing the program into modular functions for better readability and maintainability.

Another important skill acquired was **sensor interfacing and calibration**. The project involved working with multiple sensors, including pH, TDS, turbidity, and temperature sensors. Each sensor operates on a different principle and produces different types of outputs, such as analog or digital signals. I learned how to interpret these signals, convert them into meaningful values, and calibrate the sensors to ensure accuracy. Calibration involved comparing sensor readings with known reference values and applying correction factors in the code. This process improved my understanding of sensor behavior and the importance of precision in measurement systems.

The internship also helped in developing skills related to **analog and digital signal processing**. Since some sensors provided analog outputs, it was necessary to use the microcontroller's Analog-to-Digital Converter (ADC) to convert these signals into digital values. I learned how to handle ADC readings, scale them appropriately, and apply mathematical formulas to derive meaningful results. Additionally, I implemented techniques such as averaging and filtering to reduce noise and stabilize sensor readings. These techniques are essential in embedded systems to ensure reliable and accurate data.

Another key technical skill gained was **circuit design and hardware integration**. I learned how to design and assemble circuits using breadboards, jumper wires, and electronic components. This included understanding the role of resistors, voltage dividers, and power supply circuits. I gained practical experience in connecting sensors and modules to the microcontroller, ensuring proper voltage levels, and maintaining stable connections. The use of voltage divider circuits to protect the ESP32 from high voltage inputs was an important aspect of hardware design that I learned during this project.

Power management was another area where I developed technical expertise. The system required a stable power supply to ensure consistent performance. I learned how to use a DC-DC buck converter (LM2596) to regulate voltage from the battery source. This involved adjusting the output voltage, verifying it using a multimeter, and ensuring that all components received the appropriate voltage levels. Understanding power management is crucial in embedded systems, especially for portable and battery-operated devices.

The internship also enhanced my skills in **communication protocols and data handling**. The pH sensor used in the project communicated with the microcontroller using UART protocol. I learned how to configure serial communication, read data from the sensor, and parse the received data to extract meaningful information. Handling different communication methods, including analog and digital signals, improved my ability to integrate diverse components into a single system.

Another important skill developed was **debugging and troubleshooting**. During the development process, several issues were encountered, such as fluctuating sensor readings, incorrect data values, and hardware malfunctions. I used tools like the Serial Monitor to analyze data and identify the root cause of problems. By systematically testing each component and making necessary adjustments, I was able to resolve these issues. This experience improved my problem-solving abilities and taught me how to approach technical challenges methodically.

The project also provided experience in **user interface design and display management**. I learned how to interface a 16×2 LCD display with the microcontroller and display real-time data in a clear and organized manner. This involved formatting the output, managing limited display space, and ensuring readability. The ability to present data effectively is important in making the system user-friendly and accessible.

Another significant technical skill gained was the implementation of **data analysis and decision-making algorithms**. I developed logic to evaluate water quality based on sensor readings and calculate a Water Quality Index (WQI) as a percentage. This required understanding standard parameter ranges and designing algorithms to classify water as safe, moderate, or unsafe. This skill is important for converting raw data into actionable insights.
The internship also introduced me to the concept of **system integration and modular design**. I learned how to divide the system into different modules, such as sensor acquisition, data processing, and display, and integrate them into a cohesive system. This approach simplifies development, improves maintainability, and allows for future enhancements.

In addition to these skills, I gained exposure to **testing and validation techniques**. The system was tested using different water samples to verify its performance and accuracy. This involved comparing results, identifying discrepancies, and making improvements. Testing is a critical step in ensuring the reliability of any engineering system.

4.2 Professional skills

During the internship at the AICTE IDEA Lab within New Horizon College of Engineering, I developed a range of professional skills that are essential for success in engineering and industry environments. While technical knowledge is important, the ability to apply that knowledge effectively in a professional setting depends on skills such as communication, teamwork, time management, adaptability, and problem-solving. This internship provided a practical environment where these skills could be developed and refined through real-world project work.

One of the most important professional skills I developed was **effective communication**. Throughout the internship, I regularly interacted with mentors, faculty members, and peers to discuss project progress, clarify doubts, and seek guidance. Communicating technical ideas in a clear and concise manner was essential for ensuring that everyone involved understood the objectives and challenges of the project. I also learned how to explain complex concepts in a simplified way, especially when presenting the working of the system or discussing results. This skill is crucial in professional environments where collaboration and knowledge sharing are key.

Another significant skill acquired was **teamwork and collaboration**. Although the project involved individual responsibilities, the overall environment encouraged collaboration and idea sharing. Working alongside other interns and discussing different approaches helped in gaining new perspectives and improving the quality of the project. I learned the importance of respecting others' ideas, contributing constructively, and working towards a common goal. Teamwork is an essential aspect of engineering projects, as most real-world problems require collective effort and interdisciplinary collaboration.

The internship also helped in developing strong **time management and organizational skills**. The project had to be completed within a limited timeframe, which required careful planning and prioritization of tasks. I learned how to divide the project into smaller tasks, set deadlines,

and monitor progress. Managing time effectively ensured that each stage of development, including design, implementation, testing, and documentation, was completed on schedule. This skill is particularly important in professional environments where meeting deadlines is critical.

Another key professional skill gained during the internship was **problem-solving and critical thinking**. The development process involved several challenges, such as unstable sensor readings, hardware compatibility issues, and coding errors. Addressing these challenges required a systematic approach, including analyzing the problem, identifying possible solutions, and implementing the most effective one. This experience enhanced my ability to think critically and make informed decisions. Problem-solving is a fundamental skill for engineers, as it enables them to tackle complex issues and develop innovative solutions.

Adaptability and willingness to learn were also important skills developed during the internship. The project involved working with new technologies and tools that were not part of my previous academic experience. I had to quickly learn how to use these tools and apply them effectively in the project. This required flexibility and a proactive approach to learning. Being adaptable is essential in the rapidly evolving field of technology, where new tools and techniques are constantly emerging.

The internship also emphasized the importance of **professional discipline and work ethics**. Maintaining punctuality, adhering to lab rules, and following safety guidelines were essential aspects of the work environment. I learned to approach tasks with responsibility and dedication, ensuring that they were completed accurately and efficiently. Professional ethics also include maintaining honesty in reporting results and acknowledging limitations or errors in the system.

Another important skill developed was **documentation and reporting**. Proper documentation is a critical part of any engineering project, as it provides a record of the development process and facilitates future improvements. I learned how to document technical details, including

circuit designs, code structure, and test results, in a clear and organized manner. This skill is essential for communicating project outcomes and for maintaining transparency in professional work.

The internship also improved my **presentation and interpersonal skills**. Presenting the project and explaining its working to mentors and peers helped in building confidence. I learned how to structure presentations, highlight key points, and respond to questions effectively. Interpersonal skills, such as listening, understanding, and interacting respectfully with others, were also enhanced through regular interactions in the lab environment.

Another valuable professional skill gained was **attention to detail**. Working with electronic components and programming requires precision, as even small errors can lead to system failure. I learned to carefully check connections, verify code, and validate results to ensure accuracy. This attention to detail is important in professional settings, where quality and reliability are critical.

The internship also provided exposure to **project management concepts**. Although the project was relatively small, it involved multiple stages and required coordination of various tasks. I learned how to plan, execute, and monitor project activities, ensuring that all objectives were achieved. Understanding project management principles is beneficial for handling larger and more complex projects in the future.

In addition, I developed the ability to **work independently while also seeking guidance when needed**. While I was responsible for completing assigned tasks on my own, I also learned the importance of consulting mentors and peers when facing difficulties. This balance between independence and collaboration is essential for professional growth.

Overall, the internship provided a comprehensive platform for developing professional skills that complement technical knowledge. These skills are essential for effective performance in engineering roles and contribute to personal and professional development.

4.3 Managerial skills

I developed several managerial skills that are essential for handling projects, coordinating tasks, and ensuring efficient execution of work. Managerial skills go beyond technical knowledge and involve planning, organizing, decision-making, and leadership abilities. Through the process of developing the Smart Water Quality Testing Device, I gained practical exposure to these aspects, which are crucial for professional growth in engineering and management roles.

One of the most important managerial skills I developed was **project planning and organization**. At the beginning of the internship, the project requirements were analyzed, and the overall work was divided into smaller, manageable tasks such as component selection, circuit design, coding, testing, and documentation. I learned how to structure the workflow in a logical sequence and allocate time for each stage. Proper planning ensured that the project progressed smoothly without unnecessary delays. It also helped in identifying dependencies between tasks and managing them effectively.

Another key skill acquired was **time management and scheduling**. Completing the project within a limited timeframe required careful allocation of time and prioritization of tasks. I learned how to set realistic deadlines, track progress, and adjust the schedule when required. For example, more time was allocated to testing and debugging phases, as they required iterative improvements. This experience enhanced my ability to manage time efficiently, which is essential in both academic and professional environments.

The internship also helped in developing **decision-making skills**. Throughout the project, several decisions had to be made regarding component selection, circuit design, and software implementation. For instance, choosing the ESP32 microcontroller over other alternatives required evaluating factors such as performance, cost, and compatibility. Similarly, decisions related to sensor calibration and data processing techniques were made based on observed results and analysis. This process improved my ability to make informed decisions by

considering multiple factors and selecting the most suitable option.

Another important managerial skill gained was **resource management**. The project involved the use of various hardware components, tools, and materials, which needed to be utilized efficiently. I learned how to manage available resources, avoid wastage, and ensure that all components were used effectively. This included organizing components, maintaining proper inventory, and ensuring that tools were handled responsibly. Efficient resource management is essential for reducing costs and improving productivity in any project.

The internship also provided experience in **risk management and problem anticipation**. During the development process, potential risks such as hardware damage, incorrect wiring, or unstable sensor readings were identified. Preventive measures, such as using voltage divider circuits and proper power regulation, were implemented to minimize these risks. Anticipating potential issues and planning solutions in advance helped in avoiding major setbacks and ensured smooth project execution.

Another significant managerial skill developed was **coordination and teamwork management**. Although the project involved individual work, it was carried out in a collaborative environment where interaction with mentors and peers was essential. I learned how to coordinate with others, share updates, and seek feedback when needed. Effective coordination ensured that issues were resolved quickly and that the project benefited from collective knowledge and experience.

The internship also enhanced my **monitoring and evaluation skills**. Regular testing of the system was conducted to evaluate its performance and accuracy. I learned how to monitor progress, analyze results, and identify areas for improvement. This involved comparing sensor readings with expected values and making necessary adjustments. Continuous evaluation ensured that the system met the required standards and performed reliably.

Another important aspect of managerial skills is **documentation and reporting management**.

I was responsible for maintaining proper records of the project, including design details, code, and test results. Organizing this information in a structured manner made it easier to track progress and present the project effectively. Documentation is a key managerial activity, as it ensures transparency and facilitates future reference.

The internship also helped in developing **leadership qualities**. Even though I was working as an intern, I took initiative in solving problems, making decisions, and ensuring that tasks were completed on time. Leadership involves taking responsibility, guiding the direction of work, and maintaining focus on objectives. This experience helped in building confidence and the ability to take ownership of tasks.

Another valuable skill gained was **adaptability in management**. During the project, unexpected challenges required changes in plans and strategies. For example, issues with sensor readings required modifications in both hardware and software. I learned how to adapt to changing situations and modify plans accordingly without affecting the overall progress of the project. Flexibility is an important managerial skill in dynamic work environments.

The internship also emphasized the importance of **quality management**. Ensuring that the system produced accurate and reliable results required attention to detail and adherence to standards. I learned how to maintain quality at each stage of development, from hardware assembly to software implementation. Quality management ensures that the final product meets user expectations and performs effectively.

In addition, I developed skills in **goal setting and achievement**. The project had clear objectives, such as measuring water quality parameters and displaying results accurately. I learned how to set short-term and long-term goals, track progress, and ensure that all objectives were achieved within the given timeframe. This structured approach to goal management is essential for successful project completion.

CHAPTER 5

OUTCOME, APPLICATIONS AND BENEFITS

5.1 Outcome of the project

The Smart Water Quality Testing Device developed during the internship resulted in a functional and efficient system capable of monitoring essential water quality parameters in real time. The primary outcome of the project is the successful integration of multiple sensors with an embedded microcontroller to measure pH, Total Dissolved Solids (TDS), turbidity, and temperature. These parameters collectively provide a reliable indication of the safety and usability of drinking water.

One of the most important outcomes is the system's ability to perform **real-time water quality analysis**. Unlike conventional laboratory-based testing methods that require time for sample collection and analysis, this device provides instant results. The sensors continuously collect data from the water sample, and the microcontroller processes this data immediately. The results are displayed on the LCD, enabling users to quickly assess water quality and make informed decisions.

Another significant outcome is the implementation of a **Water Quality Index (WQI)**. The system converts multiple sensor readings into a single percentage value that represents the overall quality of water. This simplifies complex data and makes it easy to interpret. Additionally, the system categorizes water into qualitative levels such as "Safe," "Moderate," and "Unsafe." This feature enhances usability and ensures that even non-technical users can understand the results.

The project also demonstrated the successful application of **embedded systems and sensor integration**. The ESP32 microcontroller efficiently handles data acquisition, processing, and display functions. The integration of analog and digital sensors required careful handling of communication protocols, calibration, and signal conditioning.

Another important outcome is the development of **technical and practical skills**. The project provided hands-on experience in circuit design, programming, debugging, and system integration. It also improved understanding of sensor behavior, data processing techniques, and power management. These skills are valuable for future projects and professional applications.

The system also achieved **cost-effectiveness and portability**. By using affordable components and a compact design, the device can be easily transported and used in different locations. This makes it suitable for field applications, especially in areas where laboratory facilities are not available.

Furthermore, the project resulted in a **scalable and modular system design**. The modular architecture allows for easy expansion and integration of additional features. For example, more sensors can be added to measure additional parameters, and IoT capabilities can be incorporated for remote monitoring.

Testing and validation confirmed the **reliability and functionality** of the system. The device was tested with different water samples, and the results were analyzed to ensure consistency. Although it may not match the precision of advanced laboratory equipment, it provides sufficiently accurate results for general assessment.

Overall, the outcome of this project is a practical and user-friendly solution for water quality monitoring. It demonstrates the effective use of embedded systems to address real-world problems and highlights the potential for further development and improvement.

In conclusion, the outcome of this project is a successful demonstration of how embedded systems can be used to develop practical solutions for real-world problems. The Smart Water Quality Testing Device achieves its objectives of real-time monitoring, ease of use, and cost-effectiveness, making it a valuable tool for water quality assessment.

5.2 Applications of the project

The Smart Water Quality Testing Device developed in this project has a wide range of practical applications due to its ability to provide real-time, portable, and cost-effective analysis of water quality. By measuring essential parameters such as pH, Total Dissolved Solids (TDS), turbidity, and temperature, the system can be used across various sectors including domestic, agricultural, industrial, environmental, and educational domains. Its simplicity and efficiency make it suitable for both technical and non-technical users.

One of the primary applications of the device is in **household water quality monitoring**. In many homes, water is sourced from municipal supply, borewells, or storage tanks, and its quality may vary due to contamination or infrastructure issues. This device allows users to test their drinking water instantly and determine whether it is safe for consumption. By regularly monitoring water quality, individuals can take preventive measures such as using filtration systems or alternative water sources, thereby reducing the risk of waterborne diseases.

Another important application is in **rural and remote areas**, where access to laboratory testing facilities is limited or unavailable. In such regions, people often depend on natural water sources such as wells, rivers, and ponds, which may be contaminated due to environmental or human factors. The portability and affordability of this device make it an ideal solution for on-site testing in these areas. It empowers local communities to assess water safety independently and make informed decisions, contributing to improved public health.

The device also has significant applications in **agriculture**. Water quality plays a crucial role in crop growth and soil health. Farmers can use the device to test irrigation water and ensure that it does not contain harmful levels of dissolved salts or contaminants. Monitoring parameters such as TDS helps in maintaining optimal soil conditions and improving crop yield. This application is particularly useful in areas where groundwater quality varies significantly.

In the **industrial sector**, the device can be used for preliminary monitoring of water used in manufacturing processes or discharged as waste. Industries are required to comply with environmental regulations regarding water quality, and this device can serve as a quick screening tool to detect potential issues. Although it does not replace advanced laboratory equipment.

Another key application is in **environmental monitoring and conservation**. The device can be used to monitor water bodies such as rivers, lakes, and reservoirs. Regular monitoring helps in identifying pollution sources and assessing the impact of human activities on the environment. This information can be used by environmental agencies and researchers to take corrective actions and implement conservation measures. The device supports sustainable practices by promoting awareness and responsible use of water resources.

The project also has applications in **educational institutions and research activities**. Students and researchers can use the device as a practical tool to study water quality parameters and understand the principles of sensor-based measurement systems. It provides hands-on experience in embedded systems, data processing, and environmental monitoring. This makes it a valuable resource for academic projects, laboratory experiments, and technical training.

In addition, the device can be integrated into **smart city and IoT-based systems**. With further development, it can be equipped with wireless communication capabilities to transmit data to cloud platforms. This enables centralized monitoring of water quality across multiple locations. Authorities can use this data to manage water distribution systems more effectively and respond to contamination events in a timely manner. Such integration enhances the efficiency of urban infrastructure and supports the development of smart cities.

Furthermore, the device can be used in **small-scale water treatment and purification systems**. It can help operators monitor the effectiveness of filtration or purification processes by measuring changes in water quality parameters.

5.3 Benefits of the project

The Smart Water Quality Testing Device developed in this project offers a range of practical and societal benefits. By combining embedded systems with sensor technology, the device provides a simple yet effective solution for monitoring water quality in real time. Its advantages extend across usability, affordability, portability, health impact, and educational value, making it a highly relevant and beneficial system.

One of the most significant benefits of the project is its ability to provide **real-time water quality assessment**. Traditional water testing methods often involve collecting samples and sending them to laboratories, which can be time-consuming and expensive. In contrast, this device delivers immediate results, allowing users to quickly determine whether water is safe for consumption. This instant feedback is particularly valuable in situations where water quality may change rapidly, enabling timely decision-making and preventive action.

Another important benefit is **ease of use and user-friendly design**. The system is designed to display results in a clear and understandable format using a 16×2 LCD. Instead of presenting complex numerical data alone, the device converts readings into a percentage-based Water Quality Index (WQI) and provides qualitative classifications such as “Safe,” “Moderate,” or “Unsafe.” This makes the device accessible to non-technical users, ensuring that it can be used by individuals without specialized knowledge.

The project also offers the advantage of **cost-effectiveness**. Conventional water testing equipment is often expensive and not easily accessible to individuals or small communities. This device is built using low-cost components such as sensors and a microcontroller, making it affordable for a wider audience. The reduced cost increases the potential for widespread adoption, especially in resource-limited areas.

Portability is another key benefit of the system. The compact design allows the device to be easily carried and used in different locations. This makes it suitable for field applications,

where water samples need to be tested on-site. Users can quickly assess water quality in homes, farms, or outdoor environments without the need for bulky equipment or laboratory facilities.

The device also contributes to **improved public health and preventive care**. Access to clean drinking water is essential for maintaining good health, and contaminated water can lead to serious diseases. By enabling regular monitoring of water quality, the device helps users identify potential risks and take corrective measures. This reduces the likelihood of waterborne diseases and promotes overall well-being.

Another significant benefit is the promotion of **environmental awareness and sustainability**. The device encourages users to monitor and understand the quality of water resources. Regular testing can help identify pollution sources and support efforts to protect natural water bodies. This aligns with the goals of sustainable development and responsible resource management.

The project also provides substantial **educational and learning benefits**. It serves as a practical example of how embedded systems and sensor technologies can be applied to solve real-world problems. Students and engineers can use this project to gain hands-on experience in circuit design, programming, and data processing. It enhances technical knowledge and encourages innovation, making it a valuable learning tool.

In conclusion, the Smart Water Quality Testing Device offers numerous benefits, including real-time monitoring, affordability, portability, ease of use, and positive impact on health and the environment. It serves as a practical and effective solution for water quality assessment while also providing educational and professional value. The project demonstrates the potential of embedded systems in addressing important societal challenges and contributes to the advancement of technology for public benefit.

CHAPTER 6

CONCLUSION

The Smart Water Quality Testing Device developed during this internship represents a practical and meaningful application of embedded systems and sensor technology in addressing a critical real-world problem. Access to safe and clean drinking water remains a major concern across many regions, and the need for simple, affordable, and real-time monitoring solutions is more important than ever. This project successfully demonstrates how modern engineering tools and techniques can be utilized to design an efficient system for assessing water quality.

The primary objective of the project was to develop a device capable of measuring key water quality parameters such as pH, Total Dissolved Solids (TDS), turbidity, and temperature. These parameters are widely recognized indicators of water safety and provide a comprehensive understanding of water conditions. By integrating these sensors with the ESP32 microcontroller, the system was able to acquire, process, and display data in real time. The successful implementation of this functionality confirms the effectiveness of the design and validates the approach used in the project.

One of the most significant achievements of the project is the implementation of a **Water Quality Index (WQI)**. This feature simplifies complex sensor data into a single percentage value, making it easier for users to interpret the results. The addition of qualitative classifications such as “Safe,” “Moderate,” and “Unsafe” further enhances the usability of the system. This user-centric approach ensures that the device can be used not only by technical professionals but also by individuals with minimal technical knowledge.

The project also highlights the importance of **system integration and modular design**. By dividing the system into different modules, such as sensor acquisition, data processing, communication, and display, the overall design became more organized and manageable. This modular approach not only improved the efficiency of development but also allows for future enhancements and scalability.

During the development process, several challenges were encountered, including sensor calibration, signal noise, and voltage compatibility issues. Addressing these challenges required a systematic approach involving testing, debugging, and refinement. Techniques such as averaging and filtering were implemented to stabilize sensor readings, while voltage divider circuits were used to ensure safe operation of the microcontroller. Overcoming these challenges provided valuable insights into the practical aspects of embedded system design and reinforced the importance of careful planning and execution.

The project also emphasizes the role of **cost-effective and portable solutions** in addressing real-world problems. By using affordable components and a compact design, the device can be easily deployed in various environments, including households, rural areas, and field applications. This accessibility makes the system particularly useful in regions where laboratory testing facilities are limited or unavailable. The portability of the device further enhances its practicality and convenience.

Another important aspect of the project is its contribution to **public health and environmental awareness**. By enabling users to monitor water quality regularly, the device helps in identifying potential risks and taking preventive measures. This can reduce the incidence of waterborne diseases and promote healthier living conditions. Additionally, the system encourages awareness about the importance of maintaining clean water sources and adopting sustainable practices.

From a technical perspective, the project provided extensive hands-on experience in embedded systems, sensor interfacing, programming, and hardware design. It strengthened my understanding of microcontroller operation, communication protocols, and data processing techniques. The use of tools such as the Arduino IDE and debugging methods like serial monitoring enhanced my programming and problem-solving skills. This experience has significantly contributed to my technical development and prepared me for future challenges in the field of engineering.

The internship also played a crucial role in developing **professional and managerial skills**. Working on the project required effective time management, planning, and coordination.

Interacting with mentors and peers improved communication and teamwork abilities. The process of documenting the project and presenting the results enhanced my reporting and presentation skills. These skills are essential for professional success and complement technical expertise.

Although the system performs effectively, there are certain limitations that can be addressed in future work. The accuracy of the device can be further improved through advanced calibration techniques and the use of higher-precision sensors. The integration of IoT capabilities can enable remote monitoring and data storage, allowing users to track water quality over time. Additional parameters, such as dissolved oxygen and conductivity, can also be included to provide a more comprehensive analysis. These improvements can enhance the functionality and applicability of the system.

In conclusion, the Smart Water Quality Testing Device successfully achieves its objectives of providing real-time, cost-effective, and user-friendly water quality monitoring. The project demonstrates the potential of embedded systems in solving important societal challenges and highlights the importance of innovation in engineering. It not only addresses a critical issue related to water safety but also contributes to the development of technical and professional skills. The knowledge and experience gained during this internship will serve as a strong foundation for future projects and career opportunities. Overall, the project stands as a valuable contribution to the field of environmental monitoring and showcases the impact of technology in improving quality of life.

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INTERNSHIP REPORT (22EEE83)

ON

DATA ANALYST INTERN

By

SUJAN KUMAR V

1NH22EE109

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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Internship Completion Certificate

It is certified that Mr. Sujan Kumar V, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE109 of New Horizon College of Engineering carried out his internship from 1/1/2026 to 30/4/2026 in the Elevate Labs Pvt ltd.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 98 marks out of 100 marks is awarded.

Date 8/5/26

8/5/26
Signature of Mentor

Name of Mentor: Dr. Vinoth Kumar K

Designation: Associate Head R&D and Professor Dept. of EEE

Official Email: dr.vinothkumar@newhorizonindia.edu

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**DATA ANALYST INTERN**"was carried out by **Mr. Sujan Kumar V (1NH22EE109),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Vinoth Kumar K	**Dr. S. Sujitha**	**Dr. Manjunatha**
Professor & Associate Head - R&D	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
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Ring Road, Kadubisanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

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Name of the examiners	*Signature with date*
1. Dr. S.L.C, NHCE	12/5/26
2. Dr. Sonjya Agrawal, RMSLC	12/05/26

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INTERNSHIP OFFER LETTER

Dear

Date: 30 December 2025

Sujan Kumar V

We are pleased to offer you the position of **Data Analyst Intern** at Elevate Labs, effective from **1st January 2026** to **30th April 2026.**

This internship is designed to provide structured learning, hands-on exposure, and practical experience in **Data Analytics through real-time projects and guided assignments** aligned with current industry standards. During the internship period, you will be expected to actively participate in assigned tasks, adhere to organizational policies, and maintain professional conduct at all times.

You will work under the guidance of experienced professionals at Elevate Labs and assist in collecting, cleaning, and analyzing data to generate meaningful insights. You will gain hands-on experience in working with data visualization tools, preparing reports, and supporting data-driven decision-making.

Please note that **this letter constitutes an offer of internship only.** An offer letter by itself does not represent or confirm successful completion of the internship. Any **Internship Completion Certificate and/or Letter of Recommendation shall be issued only upon successful completion** of the internship duration, satisfactory performance of all assigned responsibilities, and full compliance with the policies, standards, and guidelines of Elevate Labs.

We believe this internship will provide **valuable professional exposure** and contribute meaningfully to your career development. We look forward to welcoming you to the Elevate Labs team.
Kindly **acknowledge your acceptance of this offer** by replying to this letter.
For Elevate Labs

ELEVATE LABS

Authorized Signatory
Elevate Labs

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INTERNSHIP REPORT (22EEE83)

ON

"A STUDY ON MANAGING SRVICES PROVIDED BY ERICSSON"

By

Supritha K

1NH22EE112

Department of Electrical And Electronics Engineering

AY: 2025-2026

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Internship Completion Certificate

It is certified that Mr./Ms./Mrs. **Supritha K** Department of **Electrical And Electronics Engineering** bearing USN: **1NH22EE112** of New Horizon College of Engineering carried out his/her internship from **27/02/2026** to **27/8/2026** in the **Ericsson**.On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date: 8/5/26

Sangeetha
Signature of Mentor

Name of Mentor:Sangeetha CN

Designation:Professor

Official Email: sangeethasreyas@gmail.com

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Department of Electrical And Electrical Engineering

CERTIFICATE

Certified that the internship work entitled **"A STUDY ON MANAGING SERVICES PROVIDED BY ERICSSON"** was carried out by **Mr./ Ms. Supritha K (1NH22EE112)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical And Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Mrs Sangeetha CN	**Dr.S.Sujitha**	**Dr. Manjunatha**
Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
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Name of the examiners	*Signature with date*
1.	12/5/26
2. Dr. Soniya Agrawal, BMSCE,	12/05/26

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ADD Company Certificate here

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INTERNSHIP LETTER

Date	Reference
2026-02-20	EGL/PL-26:500 Uen

Your Date	Your Reference

Attending to this matter
NO/EIPL/PL Ketan Kanaujia/KG

Ms. Supritha K

Dear Ms. Supritha,

This is in reference to your request letter for Internship in our organization and subsequent discussion regarding the same. We are pleased to allow you for this training in our organization (**Bangalore**), starting from 27-Feb-2026 to 27-Aug-2026.

You will be assigned a project upon joining by Sumeet Sinha

Please contact Sumeet Sinha on the day of joining.

With best wishes
Yours sincerely,
For ERICSSON INDIA PRIVATE LIMITED
(FORMERLY KNOWN AS ERICSSON INDIA GLOBAL SERVICES PRIVATE LIMITED)

Ketan Kanaujia
Digitally signed by Ketan Kanaujia
Date: 2026.02.23 10:32:31 +05'30'

Ketan Kanaujia
Acting Head of Talent Acquisition – EGI

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INTERNSHIP REPORT (22EEE83)

ON

IOT-BASED PROJECT DEVELOPMENT

By

Sushil

1NH22EE114

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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Internship Completion Certificate

It is certified that Mr. Sushil Department of Electrical and Electronics Engineering bearing USN: 1NH22EE114 of New Horizon College of Engineering carried out his internship from 19/01/2026 to 30/04/2026 in the AICTE IDEA Lab. On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 95 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: Dr. R.Mohan Das

Designation: Associate Professor

Official Email: mohandas@newhorizonindia.edu

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "IOT-BASED PROJECT DEVELOPMENT" was carried out by **Mr. Sushil (1NH22EE114),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. R.Mohan Das	**Dr. S Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof and HOD-EEE	Principal
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Name of the examiners	*Signature with date*
1. Sujitha, HOD, NHCE	1. 12/5/26
2. Dr. Soniya Agrawal	2. 12/05/26

INTERNSHIP OFFER LETTER

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Sushil
1NH22EE114
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Sushil,

We are pleased to inform you that you have been selected for a **three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - **Internship Title:** IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
New Horizon College of Engineering
Ring Road, Bengaluru

Principal
New Horizon College of Engineering
Bangalore

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Dr.R.Mohan Das and under the supervision of Internship Supervisor Dr. A.Sujin Jose submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Sushil

Signature of the Student

Student Name: Sushil

USN: 1NH22EE114

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

ENTERPRISE INTEGRATION WITH SAP CPI

By

Syed Roshan A

1NH22EE115

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Syed Roshan A Department of Electrical and Electronics Engineering bearing USN: 1NH22EE115 of New Horizon College of Engineering carried out his internship from 05/01/26 to 30/04/26 in the Capgemini Technology Services India Ltd On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 99 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: Ms. Surat Pyari Atti

Designation: Assistant Professor

Official Email: suratpyari271184@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"ENTERPRISE INTEGRATION WITH SAP CPI"** was carried out by **Mr. Syed Roshan A (1NH22EE115),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Ms. Surat Pyari Atti	**Dr. S. Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Dr. S.C, MIT CC	12/05/26
2. Dr. Soumya Agrawal, RNSCE	12/05/26

INTERNSHIP COMPLETION CERTIFICATE

Capgemini Technology Services India Limited
Block B6, SEZ, IT3 & IT4, Airoli Knowledge Park,
Thane Belapur Road, Airoli,
Navi Mumbai - 400708, Maharashtra, India
www.capgemini.com/in-en

Reference No: 8088425874

April 22, 2026

TO WHOMSOEVER IT MAY CONCERN

This is to certify Mr. Syed Roshan A has successfully completed his internship with Capgemini from February 19, 2026 to April 21, 2026.

He interned under the guidance of Ms. Mrunal Deshpande.

We wish Syed all the best for his future endeavors.

Yours truly,
For Capgemini Technology Services India Limited

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

HINDUSTAN AERONAUTICS LIMITED (HAL)

By

T PURUSHOTHAM

1NH22EE116

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. T PURUSHOTHAM Department of Electrical and Electronics Engineering bearing USN: 1NH22EE116 of New Horizon College of Engineering carried out his internship from 2/1/2026 to 25/4/2026 in the HAL.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 91 marks out of 100 marks is awarded.

Date:

Signature of Mentor

Name of Mentor: SUNIL S K

Designation: Sr. Assisstant Professor

Official Email: sunilmpl@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"HAL(Hindustan Aeronautics Limited)"** was carried out by **Mr. T Purushotham (1NH22EE116),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
SUNIL SK	Dr. Sujitha S	**Dr. Manjunatha**
Sr. Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaadubeesanahalli, Marathahalli Outer Ring Road, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.	12/05/26
2. Dr. Sanjay Agrawal, BMSCE	12/05/26

Certificate

ವಿಮಾನ ವಿಭಾಗ / एयरक्राफ्ट प्रभाग / AIRCRAFT DIVISION
ಬೆಂಗಳೂರು ಸಂಕೀರ್ಣ / बेंगलूरु कॉम्प्लेक्स / BANGALORE COMPLEX
ಹಿಂದುಸ್ತಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

एचएएल HAL

ಪೋಸ್ಟ್ ಬ್ಯಾಗ್ ನಂ.1788, ಬೆಂಗಳೂರು - 560 017, ಭಾರತ
Post Bag No.1788, Bengaluru - 560 017, India
Ph.: 91-80-2231 1741
Fax: 91-80-2231 5188

No. A/HR/509/ 577 /2026

25th April, 2026

CERTIFICATE

This is to certify that **Mr. T Purushotham, USN 1NH22EE116**, a bonafide BE(Electrical & Electronics) student of New Horizon College of Engineering has successfully completed his Internship in HAL at Aircraft Division, HAL, Bangalore from 02.01.2026 to 25.04.2026.

2. We wish him all the best and success in his future endeavors.

(Arun Kumar V)
Senior Manager (HR)

Mr. T Purushotham,
BE(Electrical & Electronics),
New Horizon College of Engineering,
Bangalore.

www.hal-india.co.in

NEW HORIZON
COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

INDUSTRIAL ELECTRICAL SYSTEMS AND MAINTAINANCE INTERN

By

TEENU YASHAS R

1NH22EE117

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

Scanned with OKEN Scanner

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Teenu Yashas R from the Department of Electrical and Electronics Engineering bearing USN: 1NH22EE117 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 27/4/2026 in Mayur Yarn and Thread PVT. LTD.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 84 marks out of 100 marks is awarded.

Date: 06-05-2026

D. Satish K.

Signature of Mentor

Name of Mentor: Mr. SATISH KUMAR D

Designation: Senior Assistant Professor

Official Email: d.satishkumar.d@gmail.com

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**INDUSTRIAL ELECTRICAL SYSTEMS AND MAINTENANCE INTERN**" was carried out by **Mr. TEENU YASHAS R (1NH22EE117)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Mr. SATISH KUMAR D	**DR. S. SUJITHA**	**Dr. Manjunatha**
Senior Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaadubeesanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Smt. I S I C, NHCE	12/5/26
2. Dr. Sonija Agrawal, RMSCE	12/05/26

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Company Certificate

MAYUR YARN & THREAD PVT. LTD.

No. 1, M. H. Bhavan, 1st 'B' Cross, Sudham Nagar, Near Telungu Chettiar Kalyana Mantapam, Bangalore - 27.
Phone : 22953207, 08, 09, 10, 11 E-mail : mayurthread@yahoo.com, apexpoly@gmail.com

Ref : MYT/26-27/153 Date : 05-05-2026

CERTIFICATE OF INTERNSHIP

This is to certify that Teenu Yashas R (USN: 1NH22EE117) student of New Horizon College of Engineering pursuing B.E. in Electrical & Electronics has completed the internship at Mayur Yarn & Thread Pvt Ltd from 12th January 2026 to 27th April 2026, as prescribed by Visvesvaraya Technological University, Belagavi, Karnataka as a part of B.E. eight semester curriculum.

During the period of his internship program he worked well as a part of a team and was sincere on his assignments and his performance was excellent.

Note: The Internship Program Carried out on "Industrial Electrical Systems and Maintenance"

Thanking You

Yours Sincerely

For MAYUR YARN & THREAD PVT. LTD.

Director / Authorised Signatory

Mayur Yarn & Thread Pvt Ltd

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DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Mr. SATISH KUMAR D** and under the supervision of Internship Supervisor (Industry) **Mr. CHANDAN KUMAR** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: TEENU YASHAS R

USN: 1NH22EE117

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

BHAIRAVI INDUSTRIAL SAFETY SECURITY AND FIRE ENGINEERING

By

TEJAS S

1NH22EE118

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Tejas S Department of Electrical and Electronics Engineering bearing USN: 1NH22EE118 of New Horizon College of Engineering carried out his internship from 05/1/2026 to 30/4/2026 in the BISAFE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 80 marks out of 100 marks is awarded.

Date:

Ch. Kavitha
Signature of Mentor

Name of Mentor: Prof. Kavitha C H

Designation: Assistant Professor

Official Email: chenna.kavithaee@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "BISAFE" was carried out by **Mr. Tejas S (1NH22EE118)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Ch. Kavitha	11/5/26	Manjunatha
Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
MS. KAVITHA C H	Dr. Sujitha S	**Dr. Manjunatha**
Assistant professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE **SEE**	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560103, Karnataka, India

Viva

Name of the examiners *Signature with date*

1. ..... 14 HCE, ... 12/5/26.
2. Dr. Soniya Agrawal, BMSCE 12/05/26

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Ms. Kavitha C H and under the supervision of Internship Supervisor (Industry) Mr. DHANARAJ R submitted as a part of the Internship (22EEE83) of B. E. in Electrical And Electronics Engineering in New Horizon College of Engineering during the academic year 20252026.

Signature of the Student

Student Name: TEJAS S

USN: 1NH22EE118

BISAFE

Bhairavi Chambers, Pathare Thube Nagar,
Line No.2, Kharadi Bypas, Pune – 411014.
Email : info@bhairaviindustries.com
Mob : +91 8484030527 | +91 9845288000

Date: 02 / 05/ 2026

INTERNSHIP CERTIFICATE

This is to certify that Mr, TEJAS S (USN: INH22EE118) has successfully completed his 13 Weeks Internship Program with BISAFE Company.

During the **internship** period, he was deputed and workd at ZECO AIRCON PVT LTD,in association with **BISAFE**, from **05/01/2026 to 30/04/2026**.

During his tenure, he has demonstrated **good technical skills, discipline, and a strong willingness to learn**. He actively participaed in assigned tasks, projects, and responsibilities, and completed them to our satisfaction.

This internship was undertaken as part of the academic curriculum, and he has successfully completed the training under **BISAFE.**

We wish him all he best for future endeavors.

For BISAFE

BISAFE BISAFE

HR ADMIN & Manager

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)
ON
SERVICE DELIVERY MANAGEMENT

By

THAVANYA MARIA SINGH

1NH22EE119

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Thavanya Maria Singh Department of Electrical and Electronics Engineering bearing USN: 1NH22EE119 of New Horizon College of Engineering carried out her internship from 17/09/25 to 17/09/26 in the company MERCK Life Science. On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 96 marks out of 100 marks is awarded.

Date: 11/5/26 ~~23/04/26~~

Signature of Mentor

Name of Mentor: Dr. S. Sujitha
Designation: Prof & HOD EEE
Official Email: dr.s.sujitha@gmail.com

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"SERVICE DELIVERY MANAGEMENT"** was carried out by **Ms. Thavanya Maria Singh (1NH22EE119),** a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD - EEE	Prof and HOD - EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kodubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... 12/5/26

2. Dr. Saniya Agrawal, BMSCA 12/05/26

Company Certificate

people360

Letter of Intent

To: Thavanya Maria Singh
#272, 12th Cross, 8th Main, Opposite, Indira Towers, Wilson Garden, Bengaluru - 560027

Subject: Letter of Intent for Internship

Dear Thavanya Maria Singh,

We are pleased to extend this **Letter of Intent** for your internship with **People 360 D Solutions LLP**. As part of this engagement, you will be assigned to work at **[Sigma Aldrich]**, where you will gain valuable hands-on experience in a professional setting.

During your internship, you will be responsible for:

- Supporting various project activities under the guidance of senior professionals.
- Assisting in data processing, reporting, and documentation as required.
- Engaging with stakeholders to enhance workflow efficiency.
- Collaborating with teams.

Key terms of your internship:

- **Duration:** 17th September 2025 to 17th September 2026
- **Work Location:** Sigma Aldrich / Merck Life Science
- **Reporting Manager:** Lokesh/Bharath
- **Stipend & Benefits:** Rs. 25K per month/- per month + Rs. 1000/- per month towards Internet

We believe this opportunity will provide a strong foundation for your professional growth and contribute positively to your career development.

Kindly confirm your acceptance of this internship by signing and returning a copy of this letter at your earliest convenience.

We look forward to working with you and wish you success in your internship journey!

For **People 360 D Solutions LLP**

Durga Sri

Durga Sri Vakkalanka - Senior HR Executive

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

E&E SYSTEMS INTEGRATION ENGINEER INTERN
OPERATIONS TEAM LEAD - AMAZON

By

TIROTAMAN K
1NH22EE120

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Tirotaman K, Department of Electrical and Electronics Engineering, bearing USN:1NH22EE120 of New Horizon College of Engineering carried out his internship from 01/08/2025 to 28/02/2026 in GRAY MOBILITY PRIVATE LIMITED, 02/03/2026 to 29/05/2026 in AMAZON .

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of marks 91 out of 100 marks is awarded.

Date: 05/5/26

Signature of Mentor

Name of Mentor: Prof. Vinod Kumar S

Designation: Sr. Assistant professor

Email: vinodks@newhorizonindia

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "E&E SYSTEMS INTEGRATION ENGINEER OPERATIONS TEAM LEAD" was carried out by **Mr. Tirotaman K (1NH22EE120)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Mr. Vinod Kumar S	**Dr. S Sujitha**	**Dr. Manjunatha**
Senior Assistant professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... SIC, NHCE 12/5/26
2. ..... Dr. Soniya Agrawal 12/05/26

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "E&E SYSTEMS INTEGRATION ENGINEER, OPERATIONS TEAM LEAD" was carried out by **Mr. Tirotaman K (1NH22EE120)**, a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Mr. Vinod Kumar S	**Dr. S Sujitha**	**Dr. Manjunatha**
Senior Assistant professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... SIC, NHCE 12/5/26
2. ..... Dr. Sonya Agrawal 12/05/26

GRAY Mobility Pvt Ltd

GRAY/HR/25-26/01008

29-07-2025

INTERNSHIP OFFER LETTER

Dear Tirotaman K,

We are pleased to offer you the opportunity to join Gray Mobility Private Limited as an **E&E and System Engineering Intern** under the guidance of our E&E Head and Chief Engineer Mr Ankit. This internship will be in hybrid mode (3 days from office every week) and may include occasional outstation travel (on company expenses) for prototype development and supplier visits.

The internship is scheduled to commence on 01st August 2025 with a duration of 3 months and a stipend of INR 12,000 per month. Basis exemplary performance, further extension of internship will be considered for additional 6 months at a stipend of INR 15,000 per month. During your internship period, in case you or the company decide to shorten the engagement tenure due to any unforeseeable reasons, a 15-day notice is to be served from both the sides.

Kindly ensure that you will maintain and protect the confidentiality of the company information & data received/generated while discharging your services. You also agree and undertake that you will not misuse or share the information with anybody, not eligible or connected to have this information.

We are confident that this experience will contribute meaningfully to your professional growth and future career pursuits. We look forward to welcoming you to the team and supporting you throughout your internship journey.

Sincerely,

Gaurav Gupta
CEO, GRAY

amazon

INTERNSHIP LETTER

TIROTAMAN K

S1, NAKSHATRA SHINE,2ND MAIN Road, HOYSALA NAGAR, R.M NAGAR
BENGALURU 560016
IND-KA IND

Dear TIROTAMAN,

On behalf of Amazon Seller Services Private Limited, a company incorporated under the laws of India, having its registered office at # 26/1, Brigade Gateway, World Trade Centre, 8th Floor, Dr. Rajkumar Road, Bangalore - 560 055. Karnataka India (hereinafter the "Company" or "Amazon India"), we are very pleased to issue this Internship Letter for the position of an Intern at New Delhi, India.

Your internship with the Company will be subject to your acceptance of this Internship Letter and the terms and conditions set forth hereinbelow on or before 10 business days in the manner provided for by the Company.

Upon your acceptance of this Internship Letter, the same shall form a valid and binding agreement between Amazon India and you, and you shall be bound by the terms and conditions stipulated herein below.

1. Date of Commencement

Your internship with Amazon India will commence on **02/03/2026** and shall end as per the provisions contained in Section 12 herein below. The said duration of internship shall hereinafter be referred to as the "Term".

2. Duties

2.1. You will be engaged in the position of **Operations Lead Intern**. Your manager will advise you about your duties and responsibilities after your joining with us. You will be expected to perform your duties to the best of your ability at all times as per the responsibilities advised by your manager at the time of joining or as amended from time to time, as well as such other tasks as may be required by Amazon India.

2.2. You will be required to comply with Amazon India's rules, regulations and policies from time to time in force, including, without limitation, those policies set out in Amazon India's Policies and Procedures (as may be applicable to you), as communicated to you. Amazon India reserves the right to change Amazon India's Policies and Procedures from time to time at its

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Senior Assistant Prof. Vinod Kumar S** ,and under the supervision of Internship Supervisor (Industry-1) Mr. Gaurav Gupta and Mr. Sumit Tyagi (Industry - 2) submitted as a part of the Internship (22EEE83) of B. E. in **Electrical and Electronics Engineering** in New Horizon College of Engineering during the academic year 2025-2026.

Signature of the Student

Student Name: Tirotaman K

USN: 1NH22EE120

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

HINDUSTAN AERONAUTICS LIMITED (HAL)

By

V BHARGAV

1NH22EE121

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. V BHARGAV Department of Electrical and Electronics Engineering bearing USN: 1NH22EE121 of New Horizon College of Engineering carried out his internship from 2/1/2026 to 25/4/2026 in the HAL.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 91 marks out of 100 marks is awarded.

Date: 12/5/26

Signature of Mentor

Name of Mentor: SUNIL S K

Designation: Sr. Assistant Professor

Official Email: sunilmpl@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled **"HAL(Hindustan Aeronautics Limited)"** was carried out by **Mr. V Bhargav (1NH22EE121),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
SUNIL SK	**Dr. Sujitha S**	**Dr. Manjunatha**
Sr Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.	12/05/26
2. Dr. Sowmya Agrawal, BMSCE	12/05/26

Certificate

ವಿಮಾನ ವಿಭಾಗ / एयरक्राफ्ट प्रभाग / AIRCRAFT DIVISION
ಬೆಂಗಳೂರು ಸಂಕೀರ್ಣ / बेंगलूरु कॉम्प्लेक्स / BANGALORE COMPLEX
ಹಿಂದೂಸ್ತಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

ಅಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ ೧೭೮೮, ಬೆಂಗಳೂರು-೫೬೦೦೧೭, ಭಾರತ
पोस्ट बैग नं.1788, बैंगलूरु - 560 017, भारत
Post Bag No.1788, Bengaluru - 560 017, India
Ph. : 91 - 80 - 2231 1741
Fax : 91 - 80 - 2231 5188

No. A/HR/509/579 /2026

25th April, 2026

CERTIFICATE

This is to certify that Mr. V Bhargav, USN 1NH22EE121, a bonafide BE(Electrical & Electronics) student of New Horizon College of Engineering has successfully completed his Internship in HAL at Aircraft Division, HAL, Bangalore from 02.01.2026 to 25.04.2026.

2. We wish him all the best and success in his future endeavors.

V. Arun Kumar

(Arun Kumar V)
Senior Manager (HR)

www.hal-india.co.in

Mr. V Bhargav,
BE(Electrical & Electronics),
New Horizon College of Engineering,
Bangalore.

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor Mr. Sunil SK and under the supervision of (Industry) Mr. D Madhu submitted as a part of the Internship (22EEE83) of B. E. in Electrical And Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Bhargav

Signature of the Student

Student Name: V BHARGAV

USN: 1NH22EE121

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IOT BASED PROJECT DEVELOPMENT – ASSET MONITORING

By

VEERESH DODDAMANI

1NH22EE122

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Veeresh Doddamani, Department of Electrical and Electronics Engineering, bearing USN:1NH22EE122 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 92 marks out of 100 marks is awarded.

Date: 09/5/'26

Signature of Mentor

Name of Mentor: Dr. Karthika M

Designation: Associate Professor

Email: karthikaganesh16@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled **"ASSET MONITORING"** was carried out by **Mr. Veeresh Doddamani (1NH22EE122),** a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical And Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Karthika M	**Dr. Sujitha S**	**Dr. Manjunatha**
Associate Professor	Professor and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... SIG NHCE 12/5/26
2. Dr. Saniya Agrawal, BMSCE 12/05/26

INTERNSHIP OFFER LETTER

NEW HORIZON COLLEGE OF ENGINEERING

AICTE IDEALab

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Veeresh Doddamani
1NH22EE122
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Veeresh Doddamani ,

We are pleased to inform you that you have been selected for a three-month internship at the AICTE IDEA Lab, New Horizon College of Engineering, under the domain of Internet of Things (IoT).

Internship Details: - **Internship Title:** IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering
Ring Road, Kasavanahalli Post, Near Marathalli
Bangalore - 560103

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

TECHNICAL WRITING

By

Yashaswini B S

1NH22EE125

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Ms. Yashaswini B S Department of Electrical and Electronics Engineering bearing USN: 1NH22EE125 of New Horizon College of Engineering carried out her internship from 11/08/25 to 30/06/26 in the Nokia Solutions and Networks India Private Limited. On the basis of her regularity, punctuality, interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 95 marks out of 100 marks is awarded.

Date: 11/8/25

Signature of Mentor

Name of Mentor: Dr. S. Sujitha

Designation: Prof. & HOD EEE

Official Email: hod_eee@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled **"Technical Writing"** was carried out by **Ms. Yashaswini B S (1NH22EE125),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

11/5/26	11/5/26	Manjunatha
Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. S. Sujitha	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and HOD- EEE	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... SK, NHCE 12/5/26

2. Dr. Saniya Agrawal, BMSCE 12/05/26

Company Certificate

STRI CTLY PRIVATE & CONFIDENTIAL

SUBJECT: Internship Letter

27.06.2025

Dear Yashaswini S

Congratulations!

Thank you for investing your time to pursue an opportunity with Nokia. We are delighted to extend to you an **'Internship'** offer at Nokia Solutions Networks India.

At Nokia, we create technology that helps the world act together. As a trusted partner for critical networks, we are committed to innovation and technology leadership across mobile, fixed and cloud networks. We create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs. Adhering to the highest standards of integrity and security, we help build the capabilities needed for a more productive, sustainable and inclusive world. A truly global company, we are 130 nationalities working in more than 100 countries.

Nokia is enabling the infrastructure for 5G and the Internet of Things to transform the human experience. Powered by the research and innovation of Nokia Bell Labs, we serve communications service providers, governments, large enterprises and consumers, with the industry's most complete, end-to-end portfolio of products, services and licensing.

Our focus is, and has always been, on people. We create technology that helps people thrive. It is through our people and culture that we shape technology to serve human needs. Our pursuit of performance with integrity and sustainability is a culture that stems from our Finnish roots and is the reason why our customers and partners choose to work with us.

Please take a moment to carefully review the attached details of this **'Internship'** Offer. Should you have any questions regarding this offer, you may contact the Talent Attraction Partner. Please accept this offer of **'Internship'** no later than **August 11, 2025.** We look forward to welcoming you on board and hope you will join us to be part of something great at Nokia Solutions and Networks.

Yours sincerely, Head of Talent Attraction Asia and MEA

Offer Details	
Internal Requisition Referen	15920
Candidate Name	Yashaswini S
Primary Work Location	Bangalore Manyata L5

University / Institute	New Horizon College
Job Title	Student Intern
Internship Project Guide	Kousalya Sudhakar
Internship Start Date	11-08-2025
Internship End Date	30-06-2026

NEW HORIZON
COLLEGE OF ENGINEERING
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INTERNSHIP REPORT (22EEE83)

ON

GRAPHICS DESIGNING

By

Y Sai Pavan

1NH22EE127

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Y Sai Pavan, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE127 of New Horizon College of Engineering, carried out his Virtual internship (12 credits) from VTU.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 10/04/2026

Signature of Mentor

Name of Mentor: Dr. R Mohan Das

Designation: Associate Professor

Official Email: mohandas@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled " **GRAPHICS DESIGNING** " was carried out by **Mr. Y Sai Pavan (1NH22EE127)**, a bonafide student at New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. R Mohan Das	**Dr. S Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... NHCE 12/5/26

2. Dr. Soniya Agrawal 12/05/26

Internship Certificate

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

CENTRE FOR ONLINE EDUCATION

HONOURS, MINORS, CERTIFICATE AND SKILL ENHANCEMENT COURSES

Elite GOLD

COURSE COMPLETION CERTIFICATE

This is to Certify that Dr/Mr/Ms YERUKULA SAI PAVAN with USN 1NH22EE127

has successfully completed Graphics Designing - Virtual Internship program

Course of 12 Credits on 2026-04-10

from VTU – Centre for Online Education.

Registrar (Evaluation)

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

ANDROID APP DEVELOPMENT USING GEN AI

By

ADARSH V

1NH23EE400

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Adarsh V Department of Electrical and Electronics Engineering bearing USN: 1NH23EE400 of New Horizon College of Engineering carried out her internship from 1/02/26 to 12/05/26 in the Mind matrix on the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 80 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Sangeetha C N

Designation: Assistant Professor

Offical Email: sangeethasreyas@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**Android App development using GenAI**" was carried out by **Mr. Adarsh V (1NH23EE400)**, a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Sangeetha C N	**Dr. S. Sujitha**	**Dr. Manjunatha**
Assistant Professor	Prof. and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical & Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560103, India

SEE Viva

Name of the examiners	*Signature with date*
1. Sujitha, M.Tech	12/05/26
2. Dr. Soujya Agrawal, BMSCE	12/05/26

ADD Company Certificate here

MindMatrix

https://mindmatrix.io
+91 80 4974 8471
contact@clinf.com

Internship Offer Letter

To,
ADARSH V

Date : 8 December 2025

Subject: Internship Offer Letter – Android App Development using Gen AI

Dear ADARSH V,

Thank you for exploring internship opportunities with **MindMatrix.io**, a product of **CL Infotech Pvt. Ltd.**, through the **VTU Internship Portal**. We are pleased to offer you an internship with our organization.

This internship will run for **13 to 15 weeks** as per VTU Guidelines. The Internship will provide you with hands-on exposure through guided tasks, structured modules, and practical projects on the **MindMatrix Platform (https://lms.mindmatrix.io)**.

During the internship, you will be engaged in product application development, supporting feature implementation, testing, preparing documentation, and cross-functional collaboration.These activities will require you to apply your technical knowledge and demonstrate your professional skills effectively.

All internship policies and professional guidelines will be provided in the **Internship Manual**, which will be shared with you on the day of program commencement.

As part of the process, you are required to:

- Print this offer letter and fill in the **Faculty Coordinator details** below.
- Obtain **HoD/Internship Coordinator signature with seal.**
- Email the scanned copy back to us within **one week** of receiving it.

For onboarding instructions, please refer to the attached **"Onboarding Steps"** document.
We look forward to your participation and wish you a productive internship.

Warm regards,
Tirumal Mutalikdesai
Program Coordinator, MindMatrix.io
contact@mindmatrix.io | 96115 46444

☐ **Authorization from Internship In-charge Faculty Or HoD**

Name : Sunil S.K Designation: CA-P

Contact No.: 9742947894 Email: sunilmpcl@gmail.com Dept: EEE

Sign and Seal of HoD: 10/1/2026

Head of the Department
Department of Electronics Engineering
New Horizon College of Engineering
Kasavanahalli, Bellandur Post
Bangalore - 560103, Karnataka, India

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

R H MULTISYSTEMS LLP

By

Akshay B M

1NH23EE401

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr./Ms./Mrs. Akshay BM, Department of Electrical and Electronics Engineering, bearing USN: 1NH23EE401 of New Horizon College of Engineering carried out his/her internship from 12/1/2026to 30/4/2026 in the R H MULTISYSTEMS LLP

On the basis of his/her regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date: 9/6/2026

Sangeetha

Signature of Mentor

Name of Mentor: Sangeetha.C.N

Designation: Sr Assistant Professor

Official Email:

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NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of ELECTRICAL AND ELECTRONICS

CERTIFICATE

Certified that the internship work entitled "**SERVICE ENGINEER**" was carried out by **Mr./ Ms. Akshay B M (1NH23EE401),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in ELECTRICAL AND ELECTRONICS** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Sangeetha.C.N	**Dr. Sujitha S**	**Dr. Manjunatha**
Sr Assistant Professor	Prof and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore-560103, Karnataka, India

SEE
Viva

Name of the examiners	*Signature with date*
1.	12/5/26
2. Dr. Soniya Agrawal, BMSCE	12/05/26

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R H MULTISYSTEMS LLP

WHITEFIELD ROAD, MAHADEVAPURA POST, BANGALORE – 560048, KARNATAKA, INDIA
GST: 29ABKFR7489M1ZZ I PAN: ABKFR7489M I LLP ID NO: ACL-85460
www.rhmultisystems.com

Date: 09-01-2026

To,

Mr. Akshay B M

USN 1NH23EE401

New Horizon College of Engineering, Bengaluru

Subject: Internship Offer

Dear Mr. Akshay B M

We are pleased to offer you an internship position with R H MULTISYSTEMS LLP as a Service Technician Intern at Drives Dept. This internship will commence on 12th Jan'2026 and is expected to continue until 30th Apri''26, subject to mutual agreement.

During your internship, you will be assigned tasks and responsibilities that align with your academic background and career interests. You will be reporting to Mr. Vivek Kumaradhas, Assistant manager and will be expected to adhere to the company's policies, procedures, and code of conduct.

Key details of your internship are as follows:

Position: Service Technician Intern / Drives Dept

Duration: 12th Jan'26 to 30th April'2026

Stipend/Allowance: Free

Working Hours: 9:00 AM to 5:30 PM, Monday to Saturday (Except Government Holidays)

Please confirm your acceptance of this offer by signing and returning a copy of this letter.

Should you have any questions, feel free to contact Mr. Vedhamurthy, HR – Ph: 9900592275.

We look forward to welcoming you to R H MULTISYSTEMS LLP and are confident that this internship will be a valuable learning experience for you.

Sincerely,

Authorized Signatory:

R H MULTISYSTEMS LLP Bengaluru-45

Santoshkumar Pattar

General Manager

R H Multisystems LLP

Bangalore

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NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

BRIEF ON LIGHT COMBAT AIRCRAFT (LCA)TEJAS

By

ANIKET N MIRJI

1NH23EE402

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Aniket N Mirji, Department of Electrical and Electronics Engineering, bearing USN: 1NH22EE402 of New Horizon College of Engineering carried out his internship from 10/1/2026 to 17/4/2026 in the HAL LCA DIVISION.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 88 marks out of 100 marks is awarded.

Date: 8/5/2026

Sangeetha
Signature of Mentor

Name of Mentor: Prof. Sangeetha C N

Designation: Assistant Professor (EEE)

Official Email: sangeethasreyas@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**BRIEF ON LIGHT COMBAT AIRCRAFT (LCA) TEJAS**" was carried out by **Mr. Aniket N Mirji (1NH23EE402),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

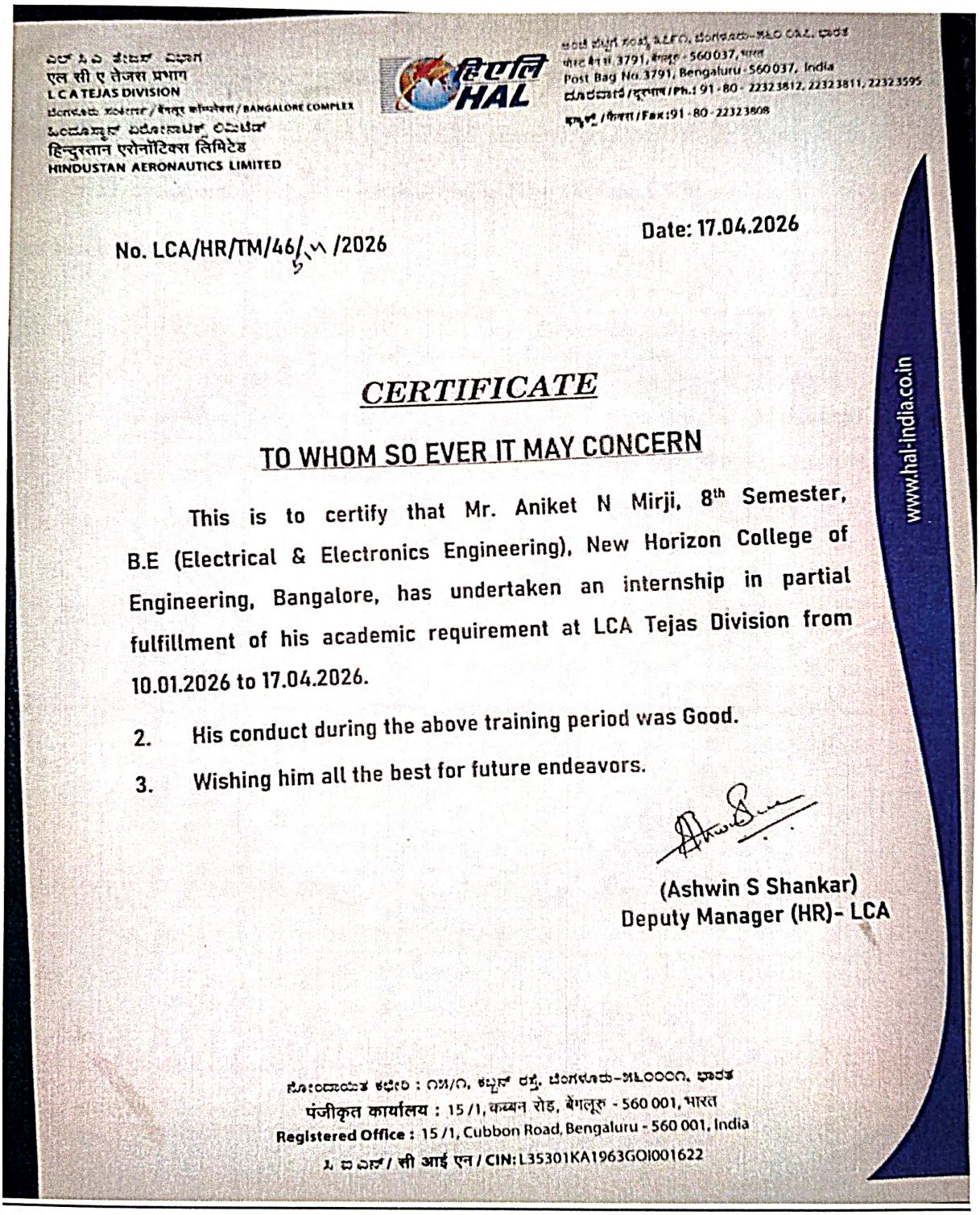
Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Prof. Sangeetha C N	**Dr. Sujitha S**	**Dr. Manjunatha**
Assistant Professor	Prof. and HOD, EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kaadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1	12/5/26
2 Dr. Soujya Agrawal, BMSCE	12/05/26

ADD Company Certificate here



ಎಲ್ ಸಿ ಎ ತೇಜಸ್ ವಿಭಾಗ
ಎಲ್ ಸಿ ಎ तेजस प्रभाग
LCA TEJAS DIVISION
ಬೆಂಗಳೂರು ಸಂಕೀರ್ಣ / बेंगलूर कॉम्प्लेक्स / BANGALORE COMPLEX
ಹಿಂದೂಸ್ತಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್
हिन्दुस्तान एरोनॉटिक्स लिमिटेड
HINDUSTAN AERONAUTICS LIMITED

HAL

ಪೋಸ್ಟ್ ಬ್ಯಾಗ್ ನಂ.3791, ಬೆಂಗಳೂರು-560 037, ಭಾರತ
पोस्ट बैग नं. 3791, बेंगलूर - 560037, भारत
Post Bag No. 3791, Bengaluru - 560037, India
ದೂರವಾಣಿ / दूरभाष / Ph.: 91 - 80 - 22323812, 22323811, 22323595
ಫ್ಯಾಕ್ಸ್ / फैक्स / Fax: 91 - 80 - 22323808

www.hal-india.co.in

No. LCA/HR/TM/46/۱۸ /2026

Date: 17.04.2026

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Aniket N Mirji, 8th Semester, B.E (Electrical & Electronics Engineering), New Horizon College of Engineering, Bangalore, has undertaken an internship in partial fulfillment of his academic requirement at LCA Tejas Division from 10.01.2026 to 17.04.2026.

2. His conduct during the above training period was Good.

3. Wishing him all the best for future endeavors.

(Ashwin S Shankar)
Deputy Manager (HR)- LCA

ನೋಂದಾಯಿತ ಕಛೇರಿ : ೧೫/೧, ಕಬ್ಬನ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು-೫೬೦೦೦೧, ಭಾರತ
पंजीकृत कार्यालय : 15/1, कब्बन रोड, बेंगलूरु - 560 001, भारत
Registered Office : 15/1, Cubbon Road, Bengaluru - 560 001, India
ಎ ಐ ಎನ್ / सी आई एन / CIN: L35301KA1963GOI001622

(sample)(if completion certificate is not received yet add your offer letter here)

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IOT BASED PROJECT DEVELOPMENT – SMART PARKING AND MOBILITY MANAGEMENT

By

Charan D S

1NH23EE403

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Charan D S, Department of Electrical and Electronics Engineering, bearing USN:1NH23EE403 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 91 marks out of 100 marks is awarded.

Date: 11/5/26

Signature of Mentor

Name of Mentor: Dr Sujitha S

Designation: Professor and HOD

Official Email:hod_eee@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical And Electronics Engineering

CERTIFICATE

Certified that the internship work entitled "**SMART PARKING AND MOBILITY MANAGEMENT**" was carried out by **Mr. Charan D S (1NH23EE403),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical And Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. Sujitha S	**Dr. Sujitha S**	**Dr. Manjunatha**
Professor and HOD	Professor and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore-560 103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.	
2. Dr. Soniya Agrawal, BMSCE	12/05/26

ADD Company Certificate here

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Charan D S
1NH23EE403
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Charan D S,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor, AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering
Bengaluru - 560103

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

ANDROID APP DEVELOPMENT USING GEN AI

By

PAVAN KUMAR M

1NH23EE406

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Pavan kumar M Department of Electrical and Electronics Engineering bearing USN: 1NH23EE406 of New Horizon College of Engineering carried out her internship from 1/02/26 to 12/05/26 in the Mind matrix on the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr. Agalya V

Designation: Prof. & Associate Head R&D

Official Email: dr.agalyav.nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**Android App development using GenAI**" was carried out by **Mr. Pavan Kumar M (1NH23EE406),** a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Agalya V	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and Associate Head R&D	Prof and HOD, EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1.....	12/5/26
2.....Dr. Sanjya Agrawal.....BMSCE.....	12/05/26

ADD Company Certificate here

MindMatrix

https://mindmatrix.io
+91 80 4974 8471
contact@clinf.com

Internship Offer Letter

To,
Pavan kumar m

Date : 10 January 2026

Subject: Internship Offer Letter – Android App Development using GenAI

Dear Pavan kumar m,

Thank you for exploring internship opportunities with MindMatrix.io, a product of CL Infotech Pvt. Ltd., through the VTU Internship Portal. We are pleased to offer you an internship with our organization.

This internship will run for 13 to 15 weeks as per VTU Guidelines. The internship will provide you with hands-on exposure through guided tasks, structured modules, and practical projects on the MindMatrix Platform.

During the internship, you will be engaged in application development, supporting feature implementation, testing, preparing documentation, and cross-functional collaboration. These activities will require you to apply your technical knowledge and demonstrate your professional skills effectively.

All internship policies and professional guidelines will be provided in the Internship Manual, which will be shared with you on the day of program commencement.

As part of the process, you are required to:

- Print this offer letter and fill in the Faculty Coordinator details below.
- Obtain HoD/Internship Coordinator signature with seal.
- Email the scanned copy back to us by 15th January 2026.

We look forward to your participation and wish you a productive internship.

Warm regards,
Tirumal Mutalikdesai
Program Coordinator, MindMatrix.io
contact@mindmatrix.io | 96115 46444

Authorization from Internship In-charge Faculty Or HoD

Name : Sunil S.K Designation: SAP

Contact No.: 9742948894 Email: sun.impu@gmail.com Dept: EEE

Sign and Seal of HoD: 10/1/2026

Head of the Department of Electrical and Electronics Engg.
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

ANDROID APP DEVELOPMENT USING GEN AI

By

PUNITH KUMAR D

1NH23EE407

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. Punith kumar D Department of Electrical and Electronics Engineering bearing USN: 1NH23EE407 of New Horizon College of Engineering carried out her internship from 1/02/26 to 12/05/26 in the Mind matrix on the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 92 marks out of 100 marks is awarded.

Date: 7/5/2026

Signature of Mentor

Name of Mentor: Dr. Agalya V

Designation: Prof. & Associate Head R&D

Official Email: dr.agalyav.nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled "**Android App development using GenAI**" was carried out by **Mr. Punith kumar D (1NH23EE407)**, a Bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. Agalya V	**Dr. S. Sujitha**	**Dr. Manjunatha**
Prof and Associate Head R&D	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. Dr. S. Sujitha, NHCE	12/05/26
2. Dr. Sanjya Agrawal, BMSCE	12/05/26

ADD Company Certificate here

MindMatrix

https://mindmatrix.io
+91 80 4974 8471
contact@clinf.com

Internship Offer Letter

To,
PUNITH KUMAR D

Date : 10 January 2026

Subject: Internship Offer Letter – Android App Development using GenAI

Dear PUNITH KUMAR D,

Thank you for exploring internship opportunities with MindMatrix.io, a product of CL Infotech Pvt. Ltd., through the VTU Internship Portal. We are pleased to offer you an internship with our organization.

This internship will run for 13 to 15 weeks as per VTU Guidelines. The internship will provide you with hands-on exposure through guided tasks, structured modules, and practical projects on the MindMatrix Platform.

During the internship, you will be engaged in application development, supporting feature implementation, testing, preparing documentation, and cross-functional collaboration. These activities will require you to apply your technical knowledge and demonstrate your professional skills effectively.

All internship policies and professional guidelines will be provided in the Internship Manual, which will be shared with you on the day of program commencement.

As part of the process, you are required to:

- Print this offer letter and fill in the Faculty Coordinator details below.
- Obtain HoD/Internship Coordinator signature with seal.
- Email the scanned copy back to us by 15th January 2026.

We look forward to your participation and wish you a productive internship.

Warm regards,
Tirumal Mutalikdesai
Program Coordinator, MindMatrix.io
contact@mindmatrix.io | 96115 46444

Authorization from Internship In-charge Faculty Or HoD

Name : Sunil S.K Designation: SAP

Contact No.: 9742948894 Email: sunilmpel@gmail.com Dept: CSE

Sign and Seal of HoD: 10/1/2026

[illegible] Engineering
[illegible] College of Engineering
[illegible] Bellandur Post,
[illegible] 560103, Karnataka, India

DECLARATION

I hereby declare that this Internship report is an original report of work done by me under the guidance of Internship Mentor **Dr. Agalya V** and under the supervision of Internship program coordination **Mr. Tirumal Mutalikdesai** submitted as a part of the Internship (22EEE83) of B. E. in Electrical and Electronics Engineering in New Horizon College of Engineering during the academic year 2025-2026.

Punith kumar.D

Signature of the Student

Student Name: Punith kumar D

USN: 1NH23EE407

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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INTERNSHIP REPORT (22EEE83)

ON

SIEMENS TECHNOLOGY AND SERVICES PVT. LTD

By

R KIRAN KUMAR

1NH23EE408

Department of Electrical and Electronics Engineering

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. R KIRAN KUMAR Department of Electrical and Electronics Engineering bearing USN: 1NH23EE408 of New Horizon College of Engineering carried out his internship from 12/01/26 to 12/05/26 in the Siemens technology and services Pvt Ltd On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 96. marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr. Karthika M

Designation: Associate professor

Official Email: karthikaganesh16@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics

CERTIFICATE

Certified that the internship work entitled " HVAC Engineer in Design Automation" was carried out by **Mr. R KIRAN KUMAR(1NH23EE408),** a student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Dr. Karthika M	**Dr. S. Sujitha**	**Dr. Manjunatha**
Associate Professor	Prof and HOD- EEE	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1	12/5/26
2 Dr. Soumya Agrawal	12/05/26

SIEMENS

Siemens Technology and Services Pvt. Ltd.

Name	Priyanka Kundu
Department	People and Organization
E-mail	priyanka.kundu.ext@siemens.com
Date	10 December 2025

R Kiran Kumar
New Horizon College of Engineering
Bangalore, Karnataka

Internship Offer

Dear **Kiran**,

We are pleased to accept you as an intern for the period starting from **12th January 2026 to 26th June 2026.** You will undergo internship in **Chennai** in the **Global Business Services** business unit of Siemens Technology and Services Pvt. Ltd. **Chennai.**

The address and contact details of our organization are as follows:

Siemens Technology and Services Pvt. Ltd.
Global Infocity Park, Block C, 5th Floor, Plot No. 40, MGR Salai, Kandanchavadi, Perungudi, Chennai 600 096.

During this period of internship, we shall pay you Rs. **15000** p.m., monthly compensation.

Subject to your acceptance, your assigned project and responsibilities may necessitate visits to the office campus, in parallel with the continuation of your project alongside your academic commitments. The frequency of these visits will be determined by the reporting manager based on business requirements and will be in effect for the duration of the internship.

In case you need any further information, please feel free to contact us.

Yours faithfully,

For **Siemens Technology and Services Pvt. Ltd.**

Krishnaswamy Rajeshwari
Digitally signed by Krishnaswamy Rajeshwari
DN: cn=Krishnaswamy Rajeshwari, c=OE, o=Siemens, email=rajeshwari.krishnaswamy@siemens.com
Date: 2025.12.17 11:12:02 +05'30'

Rajeshwari Krishnaswamy
General Manager – People & Organization

Accepted By:
R Kiran Kumar:
Date:

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

TESCOM

By

THIPPESWAMY S

1NH23EE409

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr. THIPPESWAMY S Department of ELECTRICAL AND ELECTRONICS ENGINEERING bearing USN: 1NH23EE409 of New Horizon College of Engineering carried out his internship from 16/01/2026 to 07/05/2026 in the TESCOM ELECTRONICS.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 90 marks out of 100 marks is awarded.

Date: 06/05/26

Signature of Mentor

Name of Mentor: Ms. Anitha A

Designation: Senior Assistant professor

Official Email: anithanelson@gmail.com

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled "TESCOM INTERN" was carried out by **MR.THIPPESWAMY S (1NH23EE409),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in ELECTICAL AND ELECTRONICS ENGINEERING** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	Signature of the HOD	Signature of the Principal
Ms. ANITHA.A	**Dr. S Sujitha**	**Dr. Manjunatha**
Senior Assistant professor	Prof and HOD	Principal
Dept. of Electrical and Electronics Engineering	Dept. of Electrical and Electronics Engineering	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubeesanahalli, Outer Ring Road, Ballandur Post,
Bangalore - 560103, Karnataka, India

SEE Viva

Name of the examiners	*Signature with date*
1. [illegible] NHCE	12/05/26
2. Dr. Soniya Agrawal, BMSCE	12/05/26

TESCOM
EXCELLENCE DELIVERED

Factory Address

1st, 2nd, 3rd floor, Plot No 18 , Sy No 43,
Aishwarya Hi Tech Industries,
Electronic City Phase 2, Bengaluru- 560100
: info@tescom.co.in : tescom.co.in

Plot No. 42 (P), 1st Floor,
KIADB Industrial Area,
Electronics City Phase II
Bengaluru - 560100 India.

Internship Offer Letter

Tescom
22/12/2025

To,
Thippeswamy S,
1NH23EE409,
New Horizon Collage of Engineering,
Bangalore,
560103

Dear **Thippeswamy S,**

We are pleased to offer you the position of Intern at **TESCOM** for the duration of four months, from **16 January 2026 to 07 May 2026**. We were highly impressed with your qualifications and your performance during the interview, and we believe that your skills and enthusiasm will be a valuable addition to our team.

Internship Details:

Position**: Intern**
Start Date: **16 January 2026**
End Date: **07 May 2026**
Working Hours: **8:00 AM to 5:00 PM**
Compensation: **₹6000 per month with food (lunch provided)**

If you accept this offer, please sign and return a copy of this letter as confirmation of your acceptance. We hope this internship will provide you with valuable practical exposure and contribute positively to your professional development.

Thank you,

TESCOM
Electronic City Phase II
BANGALORE - 100

NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

INTERNSHIP REPORT (22EEE83)

ON

IOT BASED PROJECT DEVELOPMENT – SMART PARKING AND MOBILITY MANAGEMENT

By

YATHISHKUMARA D R

1NH23EE410

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

AY: 2025-2026

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Internship Completion Certificate

It is certified that Mr Yathishkumara D R, Department of Electrical and Electronics Engineering, bearing USN:1NH23EE410 of New Horizon College of Engineering carried out his internship from 12/1/2026 to 30/4/2026 in the AICTE IDEA LAB, NHCE.

On the basis of his regularity, punctuality, Interest shown towards learning skills, team participation, work experience and meeting Internship objectives, a score of 92 marks out of 100 marks is awarded.

Date: 8/5/2026

Signature of Mentor

Name of Mentor: Dr. Agalya V

Designation: Prof. & Associate Head R & D

Official Email:

dr.agalyav.nhce@newhorizonindia.edu

NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the internship work entitled **"SMART PARKING AND MOBILITY MANAGEMENT"** was carried out by **Mr. Yathishkumara D R (1NH23EE410),** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electrical And Electronics Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2025-26. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The internship report has been approved as it satisfies the academic requirements in respect of the Internship work prescribed for the Bachelor of Engineering Degree.

Signature of the Mentor	**Signature of the HOD**	**Signature of the Principal**
Dr. Agalya V	**Dr. Sujitha S**	**Dr. Manjunatha**
Prof. & Associate Head R&D	Professor and HOD	Principal
Dept. of EEE	Dept. of EEE	NHCE

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post
Bangalore-560103, Karnataka, India

SEE Viva

Name of the examiners *Signature with date*

1. ..... NHCE, 12/5/26
2. Dr. Sanjya Agrawal, RNSCE 12/05/26

ADD Company Certificate here

NEW HORIZON COLLEGE OF ENGINEERING

AICTE IDEA Lab – Internship Offer Letter

Date: 09/01/2026

To

Yathishkumara D R
1NH23EE410
Electrical And Electronics Engineering
New Horizon College Of Engineering

Subject: Offer Letter for Internship on IoT Projects at AICTE IDEA Lab

Dear Yathishkumara D R,

We are pleased to inform you that you have been **selected for a three-month internship** at the **AICTE IDEA Lab, New Horizon College of Engineering**, under the domain of **Internet of Things (IoT)**.

Internship Details: - Internship Title: IoT-Based Project Development
- **Duration:** 3 Months
- **Internship Period:** 19/01/2026 to 30/04/2026
- **Location:** AICTE IDEA Lab, New Horizon College of Engineering
- **Mode:** Offline

During the internship period, you will work on **Hands-on IoT projects** involving sensor integration, embedded systems, cloud platforms, data analytics, and real-time monitoring applications. You are expected to actively participate in project development, reviews, documentation, and final demonstrations.

Upon successful completion and submission of all required deliverables, you will be awarded an **Internship Completion Certificate** from the AICTE IDEA Lab.

Kindly confirm your acceptance of this offer by submitting the attached **Student Acceptance Form** and reporting to the AICTE IDEA Lab on **19/01/2026**.

We wish you a productive and enriching internship experience.

Warm regards,

Dr. Manjunatha
Chief Mentor – AICTE IDEA Lab
Principal
New Horizon College of Engineering
Bengaluru

Principal
New Horizon College of Engineering