

NEW HORIZON COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
FIELD PROJECTS UNDERTAKEN BY STUDENTS-AY 2022-2023

Team No.	Department	Name Of the student	Internal/External	Project Title	Organization	Project Duration	External Guide
1	ECE	Akshaya Srinivasan	Internal	Weather Station using ML	NHCE	6 months	
	ECE	AVS.uttej	Internal		NHCE	6 months	
	ECE	Chaitra Kumari	Internal		NHCE	6 months	
	ECE	Disha pb	Internal		NHCE	6 months	
2	ECE	ANUJ M A	Internal	"FOOTSTEPS BASED SUSTAINABLE ENERGY GENERATION AND CONSUMPTION SYSTEM"	NHCE	6 months	
	ECE	A.DHARMIK SAI REDDY	Internal		NHCE	6 months	
	ECE	DEVU MAHESWAR REDDY	Internal		NHCE	6 months	
	ECE	G.PAVAN KALYAN REDDY	Internal		NHCE	6 months	
3	ECE	Chilaka Bhavya	Internal	Robotic metal detector using Arduino	NHCE	6 months	
	ECE	Kavya A	Internal		NHCE	6 months	
	ECE	Kalahasti Charishma	Internal		NHCE	6 months	
	ECE	D. Sai kumar	Internal		NHCE	6 months	
4	ECE	Adarsh Kumar	Internal	ADVAC Smart Home systems	NHCE	6 months	
	ECE	J Dhanush	Internal		NHCE	6 months	
	ECE	Atithkumar R Naik	Internal		NHCE	6 months	
	ECE	R Vikas	Internal		NHCE	6 months	
	ECE	Chandan Gowda M	Internal		NHCE	6 months	
5	ECE	Karthik S	Internal	Design Of GAATFET	NHCE	6 months	
	ECE	Jayanth S	Internal		NHCE	6 months	
	ECE	kotha venkata Hari Raghavendra	Internal		NHCE	6 months	
	ECE	K Anil Kumar	Internal		NHCE	6 months	
6	ECE	Shiva Shankar L	Internal	Design and Implementation Of 8 bit Vedic Multiplier	NHCE	6 months	
	ECE	Keerthana N	Internal		NHCE	6 months	
	ECE	Madhu Shree R	Internal		NHCE	6 months	
	ECE	Renuka S Hebballi	Internal		NHCE	6 months	
7	ECE	SUMANTH KB	Internal	Antenna Design for	NHCE	6 months	
	ECE	I JENNIFER	Internal		NHCE	6 months	

	ECE	BHUMIKA KS	Internal	Avionics Application	NHCE	6 months	
	ECE	CHANDAN GS	Internal		NHCE	6 months	
8	ECE	Bharatdeep Hazarika	Internal	IoT based Sustainable Agricultural solution	NHCE	6 months	
	ECE	Ayush Bansal	Internal		NHCE	6 months	
	ECE	Ritesh B	Internal		NHCE	6 months	
	ECE	B Sasidhar	Internal		NHCE	6 months	
	ECE	Harshith.D	Internal		Bus Tracking and Monitoring System using IoT and wireless sensors	NHCE	6 months
9	ECE	H S Manjunath	Internal	NHCE		6 months	
	ECE	Akash Mangalur	Internal	NHCE		6 months	
	ECE	Supreeth G V	Internal	NHCE		6 months	
	ECE	Harsha Vardhan P	Internal	NHCE		6 months	
10	ECE	A Bharath Kumar	Internal	3D Imaging based ML algo for Agricultural monitoring system	NHCE	6 months	
	ECE	Ananyaa Sundar	Internal		NHCE	6 months	
	ECE	Chakravarthi	Internal		NHCE	6 months	
	ECE	Dhyan Reddy	Internal		NHCE	6 months	
	ECE	Darshan D	Internal		NHCE	6 months	
11	ECE	Kanumala Bhargav Sai	Internal	Garbage/ Waste classification using Deep Learning	NHCE	6 months	
	ECE	Gollapalli Jyothi	Internal		NHCE	6 months	
	ECE	Hussain Peera	Internal		NHCE	6 months	
	ECE	Harikrishnan S	Internal		NHCE	6 months	
12	ECE	Dharshan V (A)	Internal	Design of antenna for 5G applications	NHCE	6 months	
	ECE	Swathi M (B)	Internal		NHCE	6 months	
	ECE	Shreya (C)	Internal		NHCE	6 months	
	ECE	Sreeraksha P (C)	Internal		NHCE	6 months	
13	ECE	G.Avinash	Internal	Speech Emotion Recognition	NHCE	6 months	
	ECE	Chinnagi Reddy Gari Kusalanatha Reddy	Internal		NHCE	6 months	
	ECE	K.Koushik Reddy	Internal		NHCE	6 months	
	ECE	A.Pavan Kumar Reddy(C)	Internal		NHCE	6 months	
	ECE	G Badri Ram	Internal		NHCE	6 months	
14	ECE	Darshan Bhavasar G (B)	Internal	Finger Print Based Electronic Voting Machine	NHCE	6 months	
	ECE	Lalitha C	Internal		NHCE	6 months	
	ECE	Rajesh Reddy R	Internal		NHCE	6 months	
	ECE	Likith S(B)	Internal		NHCE	6 months	
	ECE	K Venkata Kiran Reddy	Internal		NHCE	6 months	

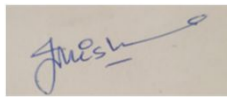
15	ECE	K Keerthivardhan Reddy	Internal	Water Conservation Control by using IoT smartmeter	NHCE	6 months	
	ECE	K Sai Manikantha	Internal		NHCE	6 months	
	ECE	T Krishna Chaitnya	Internal		NHCE	6 months	
16	ECE	Koduru Nani	Internal	Robotic vehicle controlled through touch-screen device	NHCE	6 months	
	ECE	Gonuguntla Harsha Vardhan	Internal		NHCE	6 months	
	ECE	Challa Chandrasekhar	Internal		NHCE	6 months	
17	ECE	kancharla Venkata pavan	Internal	Automatic Enabled Attendance system based on cloud computing	NHCE	6 months	
	ECE	Shashank b	Internal		NHCE	6 months	
	ECE	gopa niranjan reddy	Internal		NHCE	6 months	
	ECE	G Lokesh Abhinav [C]	Internal		NHCE	6 months	
	ECE	kristam harshavardhan	Internal		NHCE	6 months	
18	ECE	Deepak Kumar R	Internal	Detection Of Fungus on Leaves in Real Time	NHCE	6 months	
	ECE	Deena M	Internal		NHCE	6 months	
	ECE	Bhavana	Internal		NHCE	6 months	
	ECE	G Sai Chaitra	Internal		NHCE	6 months	
	ECE	Gita Akshitha	Internal		NHCE	6 months	
19	ECE	PaladuguRakesh	Internal	Solar Power Automated Multi-Tasking Agricultural Robot	NHCE	6 months	
	ECE	namburu rama lakshman	Internal		NHCE	6 months	
	ECE	Sammeta Sathvika	Internal		NHCE	6 months	
	ECE	Sereddy Nitish Kumar	Internal		NHCE	6 months	
20	ECE	Surya.P	Internal	Design of FEFET for Future memory devices	NHCE	6 months	
	ECE	Supriya.S	Internal		NHCE	6 months	
	ECE	Pooja	Internal		NHCE	6 months	
	ECE	D Vaishali Patnaik	Internal		NHCE	6 months	
21	ECE	Lavannya L	Internal	MEMS based hand gesture controlled Robot	NHCE	6 months	
	ECE	Singamsetty Mohana Varshitha	Internal		NHCE	6 months	
	ECE	Srividya Chaganti	Internal		NHCE	6 months	
	ECE	Suchita Hazra	Internal		NHCE	6 months	
22	ECE	Tejas C Ghorpade	Internal	Design and Implementation Of 32 bit MIPS RISC Processor with	NHCE	6 months	
	ECE	Nishanth H	Internal		NHCE	6 months	
	ECE	Lokesh M	Internal		NHCE	6 months	

23	ECE	Manoj Kumar S	Internal	PROCESSOR with Flexible 5-stage Analysis Of Air Pollution in smart city Infrastructure using IoT	NHCE	6 months	
	ECE	Punith Kumar G P	Internal		NHCE	6 months	
	ECE	Mitesh Kumar E M	Internal		NHCE	6 months	
	ECE	Midhun M	Internal		NHCE	6 months	
	ECE	Chirag Sharma M	Internal		NHCE	6 months	
24	ECE	Mamatha S	Internal	Detection Of Autism spectrum disorder using neural networks	NHCE	6 months	
	ECE	Jaswanthi P	Internal		NHCE	6 months	
	ECE	Swathi K	Internal		NHCE	6 months	
	ECE	Yashwitha L	Internal		NHCE	6 months	
25	ECE	Rohit P	Internal	Tesla's stock price prediction using machine learning models	NHCE	6 months	
	ECE	Sachin R	Internal		NHCE	6 months	
	ECE	Shreya C	Internal		NHCE	6 months	
	ECE	Chayanath	Internal		NHCE	6 months	
	ECE	Siva S	Internal		NHCE	6 months	
26	ECE	Punith M	Internal	Smart Security Patrolling Robot using Rasbery Pi	NHCE	6 months	
	ECE	Ruthesh S	Internal		NHCE	6 months	
	ECE	Shalini M	Internal		NHCE	6 months	
	ECE	Srushti Goudar	Internal		NHCE	6 months	
27	ECE	M Tejasree	Internal	IoT based Weather station	NHCE	6 months	
	ECE	Swathi M D	Internal		NHCE	6 months	
	ECE	S Ragasahithi	Internal		NHCE	6 months	
28	ECE	STANLY DAVIS	Internal	Remote Driver Monitoring System	NHCE	6 months	
	ECE	SAGAR BASAVARAJ SHETTAR	Internal		NHCE	6 months	
	ECE	VINUTH KUMAR	Internal		NHCE	6 months	
	ECE	R HARSHITH GOWDA	Internal		NHCE	6 months	
29	ECE	Rakesh Kumar Patel	Internal	WiFi Controlled Car using Node-MCU and Blynk App	NHCE	6 months	
	ECE	Sheik Moosa	Internal		NHCE	6 months	
	ECE	Sayan Maitra	Internal		NHCE	6 months	
	ECE	Pattubala Pavan	Internal		NHCE	6 months	
30	ECE	MAHESHWAR REDDY	Internal	Smart Use Of Solar Radiation for Agricultural Purpose	NHCE	6 months	
	ECE	MANIKA SAI KIRAN	Internal		NHCE	6 months	
	ECE	MADANAPALLI RAJASEKHAR	Internal		NHCE	6 months	
	ECE	M.B ROHITH REDDY	Internal		NHCE	6 months	

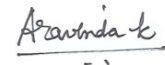
31	ECE	Lokesh Biswas M	Internal	Microstrip Patch Antenna Arrays for 5G communication	NHCE	6 months	
	ECE	Sriram B	Internal		NHCE	6 months	
	ECE	Krishnendh J	Internal		NHCE	6 months	
	ECE	Nidhi B Achar	Internal		NHCE	6 months	
32	ECE	Nikhil Jha	Internal	Animal Detection for farmlands using Image Processing	NHCE	6 months	
	ECE	Nikitha MS	Internal		NHCE	6 months	
	ECE	Nirmit Verma	Internal		NHCE	6 months	
	ECE	Rakshita Sharma	Internal		NHCE	6 months	
33	ECE	R Sukitha	Internal	Embedded TOF	NHCE	6 months	
	ECE	Devanshi(A)	Internal		NHCE	6 months	
	ECE	Bhargav Dayal	Internal		NHCE	6 months	
	ECE	Sagar S	Internal		NHCE	6 months	
	ECE	V Geethanjali	Internal		NHCE	6 months	
34	ECE	Varshita	Internal	Air Pollution Detection	NHCE	6 months	
	ECE	V.Shruthi	Internal		NHCE	6 months	
	ECE	Krishna Chaithanya	Internal		NHCE	6 months	
	ECE	Vinay Kumar K N	Internal		NHCE	6 months	
35	ECE	Bikram Kumar daulyal	Internal	Bluetooth controlled Robot with collision detection with IoT based humidity monitoring	NHCE	6 months	
	ECE	Ashwin b Nayak	Internal		NHCE	6 months	
	ECE	mithun p	Internal		NHCE	6 months	
	ECE	Joshua Stanley	Internal		NHCE	6 months	
	ECE	Tarun Vinayak S	Internal		NHCE	6 months	
	ECE	sri Harsha chakravarthi	Internal		NHCE	6 months	
36	ECE	Y Sai Kumar Reddy	Internal	Smart Home Automation using Intelligent Electricity Dispatch	NHCE	6 months	
	ECE	Mithun M	Internal		NHCE	6 months	
	ECE	M Sai Vignesh	Internal		NHCE	6 months	
	ECE	M Yeshwanth	Internal		NHCE	6 months	
37	ECE	Ujwal A Reddy	Internal	Traffic Rule Violation Regulation For Two Wheeler using Yolo	NHCE	6 months	
	ECE	Arun Dev M	Internal		NHCE	6 months	
	ECE	Rishab C Lal	Internal		NHCE	6 months	
	ECE	Vinay R	Internal		NHCE	6 months	
38	ECE	N.TEJASWINI	Internal	S-Kart	NHCE	6 months	
	ECE	KRUTHIKA R	Internal		NHCE	6 months	
	ECE	GUBBA PAVAN KALYAN	Internal		NHCE	6 months	

39	ECE	Abhijeet parmar	Internal	Multi-Tasking Agriculture	NHCE	6 months	
	ECE	Subramanyam Morla	Internal		NHCE	6 months	
	ECE	Steven Paul C X	Internal		NHCE	6 months	
	ECE	Telkar Sai Gopi Chand	Internal		NHCE	6 months	
	ECE	Vempalli Raja Sekhar Raju	Internal		NHCE	6 months	
	ECE	Vishwas K	Internal		NHCE	6 months	
40	ECE	Lakshya Sharma	Internal	Smart Surveillance Robot	NHCE	6 months	
	ECE	Lingala Sakthidhar Reddy	Internal		NHCE	6 months	
	ECE	Manoj Kumar E	Internal		NHCE	6 months	
	ECE	Nusum Mansoor Ali	Internal		NHCE	6 months	
	ECE	YEDUGURI VAMSIDHAR REDDY	Internal		NHCE	6 months	
41	ECE	Gopu Syam Sundar	Internal	Women Safety using Technology	NHCE	6 months	
	ECE	Illuri Nagaraju	Internal		NHCE	6 months	
	ECE	Makam Reddy Sunil	Internal		NHCE	6 months	
	ECE	Srinath D V	Internal		NHCE	6 months	
42	ECE	A N Somanna	Internal	Ordnance Disposal using Technology	NHCE	6 months	
	ECE	Karthik K B	Internal		NHCE	6 months	
	ECE	Rithik S M	Internal		NHCE	6 months	
	ECE	Nagendra Rao SN	Internal		NHCE	6 months	
43	ECE	ASHRITHA CHALLA	Internal	Smart Dustbin	NHCE	6 months	
	ECE	SWATHI	Internal		NHCE	6 months	
	ECE	AFSAR	Internal		NHCE	6 months	
	ECE	kusuma sagar	Internal		NHCE	6 months	
44	ECE	Aditya Vilas Thakre	Internal	Design and Analysis of high security smart lock	NHCE	6 months	
	ECE	Anish Kumar	Internal		NHCE	6 months	
	ECE	Pranav Raj	Internal		NHCE	6 months	
	ECE	T. V. Mourya Nikhil	Internal		NHCE	6 months	
45	ECE	T Uday Kiran	Internal	Lane Detection	NHCE	6 months	
	ECE	Tejas B Mukesh	Internal		NHCE	6 months	
	ECE	Mohammed muzammil ahmed	Internal		NHCE	6 months	
46	ECE	Bhoomika P	Internal	Design and Analysis of IoT	NHCE	6 months	
	ECE	Preethisree V	Internal		NHCE	6 months	

	ECE	Trisha Chatterjee	Internal	based Pollution Monitoring System	NHCE	6 months	
	ECE	Shanika K S	Internal		NHCE	6 months	
47	ECE	Devarasi Swetha	Internal	IoT based human security system	NHCE	6 months	
	ECE	Abhijit G Naik	Internal		NHCE	6 months	
	ECE	Anila D	Internal		NHCE	6 months	
	ECE	Shwetha S	Internal		NHCE	6 months	
48	ECE	Palkuru yashwanth	Internal	Face Recognition for Visually Impaired	NHCE	6 months	
	ECE	Pulla chaveen reddy	Internal		NHCE	6 months	
	ECE	Thallam Vedesh	Internal		NHCE	6 months	
	ECE	K Mohammad Waseem	Internal		NHCE	6 months	
	ECE	Sibbala Reddi Yaswanth	Internal		NHCE	6 months	
49	ECE	P N Vaishnavi	Internal	Smart Helmet to ensure driver safety	NHCE	6 months	
	ECE	Kevin Dennis J	Internal		NHCE	6 months	
	ECE	Athul Gracious	Internal		NHCE	6 months	
	ECE	Aashish Manikonda	Internal		NHCE	6 months	
50	ECE	G.Ahalya	Internal	Spectrum Sensing using energy detection for 4G waveform	NHCE	6 months	
	ECE	P.Anudeep Kumar Reddy	Internal		NHCE	6 months	
	ECE	S.Gnapika	Internal		NHCE	6 months	
	ECE	U.Naga Nanditha	Internal		NHCE	6 months	
51	ECE	P Sumyukthaa	Internal	Telemedicine system for remote health monitoring	NHCE	6 months	
	ECE	Rakshitha L	Internal		NHCE	6 months	
	ECE	Yathika Evangelin	Internal		NHCE	6 months	
52	ECE	Sahana Kulkarni	Internal	Design,Implementation and Analysis Of 6T and 8T SRAM memory Cell	NHCE	6 months	
	ECE	Tanushree Aravind Kumbhare	Internal		NHCE	6 months	
	ECE	Nandhini M	Internal		NHCE	6 months	
	ECE	Damini Madhurika M	Internal		NHCE	6 months	
53	ECE	Ajaya A	Internal	Design and Development of Smart Hydroponic system	NHCE	6 months	
	ECE	Amruth Kiran	Internal		NHCE	6 months	
	ECE	Niranjan B N	Internal		NHCE	6 months	
	ECE	Siddesha M	Internal		NHCE	6 months	



Project Coordinator



HOD-ECE



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

IOT BASED WEATHER PREDICTION USING MACHINE LEARNING

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

AKSHAYA SRINIVASAN - 1NH19EC005

ARAVETIVENKATASAIUTTEJ -1NH19EC008

CHAITRA KUMARI -1NH19EC016

DISHA.PB -1NH19EC030

Under the guidance of

Ms. SWATI NIGAM

ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE)
Accredited by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-II work entitled "IOT based Weather prediction using machine learning" is a bonafide work carried out by AKSHAYA SRINIVASAN (1NH19EC005), ARAVETI VENKATA SAI UTTEJ (1NH19EC008), CHAITRA KUMARI (1NH19EC016), DISHA P B (1NH19EC030) in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

(Ms. Swati Nigam)

Signature of HOD

(Dr. Aravinda k)

SEE Viva

Name of Examiner

1. Ishani Mishra

2. Dr. Vani A

Signature with date

11/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

“FOOTSTEPS BASED SUSTAINABLE ENERGY GENERATION AND CONSUMPTION SYSTEM”

A MAJOR PROJECT REPORT

Submitted by

ANUJ M A – 1NH19EC007

A.DHARMIK SAI REDDY – 1NH19EC003

DEVU MAHESWAR REDDY – 1NH19EC027

G.PAVAN KALYAN REDDY – 1NH19EC034

In partial fulfillment of the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

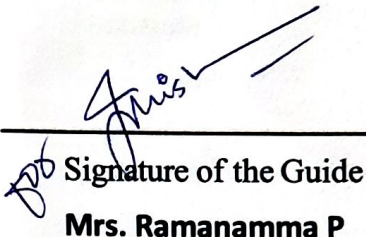


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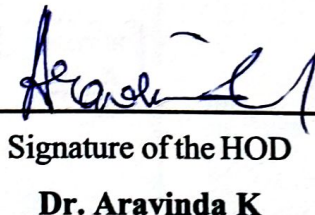
Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **FOOTSTEPS BASED SUSTAINABLE ENERGY GENERATION AND CONSUMPTION SYSTEM** carried out by **ANUJ M A USN: 1NH19EC007, A.DHARMIK SAI REDDY USN:1NH19EC003, DEVU MAHESWAR REDDY USN:1NH19EC027, G.PAVAN KALYAN REDDY USN: 1NH19EC034** bona fide students of New Horizon College of Engineering in partial fulfillment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final Report has been approved as it satisfies the academic requirements in respect of the Major project work prescribed for the said Degree.


Signature of the Guide
Mrs. Ramanamma P

Senior Assistant Professor,
Dept. of ECE, NHCE


Signature of the HOD
Dr. Aravinda K

Professor & HoD, Dept. of ECE
NHCE

Sd/-

Signature of the Principal
Dr. Manjunatha

Principal NHCE

EXTERNAL VIVA

Name of the Examiners

1. Dr. Vani A

2. Ishani Mishra

Signature with Date

1. 

2.  11/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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A PROJECT PHASE-II REPORT (20ECL78A)

ON

"Explosive Metal Detection Robot Using Arduino"

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Kavya A – 1NH19EC054

Chilaka Bhavya – 1NH19EC021

Kalahasti Charishma – 1NH19EC048

D.Saikumar – 1NH19EC023

UNDER THE GUIDANCE OF

Dr. Rajesh G

Associate professor

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



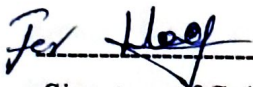
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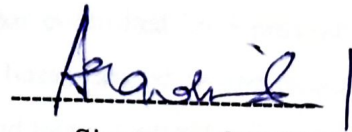
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-II work entitled “Explosive Metal Detection Robot Using Arduino” is a bonafide work carried out by **Kavya A(1NH19EC054)**, **Chilaka Bhavya(1NH19EC021)**, **Kalahasti Charishma (1NH19EC048)**, **D.Saikumar (1NH19EC023)** in partial fulfilment for the award of **Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.



Signature of Guide
(Dr. RAJESH G)
Associate professor



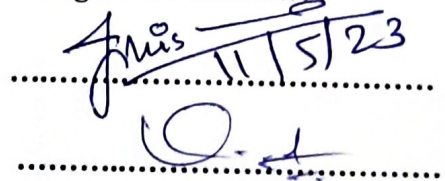
Signature of HOD
(Dr. ARAVINDA KOITHYAR)
Professor & HOD

SEE Viva

Name of Examiner

1. Iskani Mishra
2. Dr. Vani A

Signature with date





NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL88A)

ON

**“IoT Based Smart Home Systems For Specially Abled and Aged
Users.”**

Submitted in partial fulfilment for the award of the degree of
BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

J DHANUSH-1NH19EC128

R VIKAS-1NH19EC133

ADARSH KUMAR-1NH19EC002

CHANDAN GOWDA M-1NH19EC020

ATITHKUMAR R NAIK-1NH19EC009

Under the guidance of

Ms. NAYANA G H

Sr. ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited by
NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103

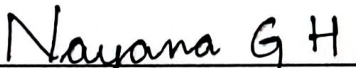


NEW HORIZON COLLEGE OF ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

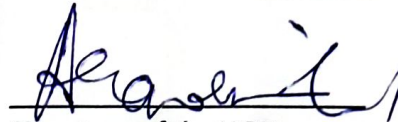
Certified that the Major project work entitled IOT Based Smart Home Systems For Specially Abled and Aged Users carried out by **Mr. J DHANUSH USN: 1NH19EC128, Mr. R VIKAS USN: 1NH19EC133, Mr. ADARSH KUMAR USN:1NH19EC002, Mr. CHANDAN GOWDA M USN: 1NH19EC020, Mr. ATITHKUMAR R NAIK USN:1NH19EC009** bona fide students of New Horizon College of Engineering in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.


Signature of the Guide

Ms. Nayana G H

Senior Assistant Professor

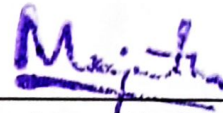
Dept. of ECE, NHCE


Signature of the HOD

Dr. Aravinda K.

Professor & HoD

Dept. of ECE, NHCE


Signature of the Principal

Dr. Manjunatha



Principal NHCE

EXTERNAL VIVA

Name of the Examiners

1. Ishani Mishra
2. Dr. Vani A

Signature with Date

1.  11/5/23
2. 



NEW HORIZON COLLEGE OF ENGINEERING

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

**A MAJOR PROJECT REPORT
ON**

**“Design and Analysis of Dielectric Materials on Gate All
Around Tunnel Field Effect Transistor”**

Submitted in partial fulfillment for the award of the degree of

**BACHELOR OF ENGINEERING
IN
ELECTRONICS AND COMMUNICATION ENGINEERING
BY**

Jayanth S - 1NH19EC045

Kotapothula Anil Kumar - 1NH19EC057

Kotha Venkata Hari Raghavendra - 1NH19EC058

Karthik S - 1NH19EC052

Under the guidance of

Mr. Nithin Kumar N R

Assistant Professor

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled "Design and Analysis of Dielectric Materials on Gate All Around Tunnel Field Effect Transistor" is a bonafide work carried out by **Mr. Jayanth S USN: 1NH19EC045, Mr. Kotapothula Anil Kumar USN: 1NH19EC057, Mr. K.V. Hari Raghavendra USN:1NH19EC058, Mr. Karthik S USN: 1NH19EC052** in partial fulfillment for the award of **Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library.

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

Signature of Guide

Mr. Nithin Kumar N R

Assistant Professor,
Dept. of ECE, NHCE

Signature of HOD

Dr. Aravinda. K.

Professor & HoD,
Dept. of ECE, NHCE

Signature of the Principal

Dr. Manjunatha

Principal NHCE

SEE Viva

Name of Examiner

1. Ishani Mishra

2. Dr. Vani A

Signature with date



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

A Major Project Report

On

“DESIGN AND IMPLEMENTATION OF 8-BIT VEDIC MULTIPLIER”

Submitted by

Keerthana N	1NH19EC055
Madhu Shree R	1NH19EC141
Shiva Shankar L	1NH20EC408
Renuka S Hebballi	1NH20EC412

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

2022-2023



NEW HORIZON COLLEGE OF ENGINEERING

New Horizon Knowledge Park, Ring Road, Marathalli
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Accredited by NAAC with 'A' Grade, Accredited by NBA

BENGALURU – 560103

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Major project entitled “**Design and Implementation of 8-bit Vedic Multiplier**” is carried out by Ms Keerthana N bearing USN: 1NH19EC055, Ms Madhu Shree R bearing USN: 1NH19EC141, Mr Shiva Shankar L bearing USN: 1NH20EC408 and Ms Renuka S Hebballi bearing USN: 1NH20EC412, bonafide students of NHCE, Bengaluru in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication of the Visvesvaraya Technological University, Belagivi during the year 2022-2023. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The major project report has been approved as it satisfies the academic requirements in respect of the major project work prescribed for the said degree.

Signature of the Guide

Dr. Aravinda K.
Professor and Head
Department of ECE



Signature of the HOD

Dr. Aravinda K.
Professor and Head
Department of ECE

Name of the Examiner

1. Dr. Vani A
2. Ishani Mishra

Signature with Date

1.  11/5/23
2.  11/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL84A)

ON

“Design of Avionics Tx/Rx using LoRa Module”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

BHUMIKA KS -1NH19EC015

CHANDAN GS -1NH19EC019

I JENNIFER -1NH19EC044

SUMANTH KB -1NH19EC046

Under the guidance of

Ms. LIPSA DASH

Sr. ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited by
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Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-II work entitled "Design of Avionics Tx/Rx using LoRa Module" is a bonafide work carried out by BHUMIKA KS (1NH19EC015), CHANDAN GS (1NH19EC019), I. JENNIFER (1NH19EC044), SUMANTH KB (1NH19EC046) in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide
(Ms. LIPSA DASH)

Signature of HOD
(Dr. ARAVINDA K)

SEE Viva

Name of Examiner

1. Ishani Mishra
2. Dr. Vani A

Signature with 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

A PROJECT PHASE-2 REPORT (20ECL84A)

ON

“IoT BASED SUSTAINABLE AGRICULTURAL SYSTEM”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

BHARATDEEP HAZARIKA -1NH19EC129

BATHALA SASIDHAR -1NH19EC014

RITHESH B -1NH19EC012

AYUSH BANSAL -1NH19EC010

Under the guidance of

Dr SANJEEV SHARMA

DEAN QASDC

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-2 work entitled "IoT BASED SUSTAINABLE AGRICULTURAL SYSTEM" is a bonafide work carried out by BHARATDEEP HAZARIKA (1NH19EC129), BATHALA SASIDHAR (1NH19EC014), RITESH B (1NH19EC012), AYUSH BANSAL (1NH19EC010) in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide
Dr. Sanjeev Sharma
Prof and Dean QASDC
NHCE

Signature of the HoD
Dr. Aravinda K
Prof. & HoD
Dept. of ECE, NHCE

Sd/-

Signature of the Principal
Dr. Manjunatha
Principal, NHCE

EXTERNAL VIVA

Name of Examiner

Signature with date

1. Ishani Mishra

2. Dr. Vani A



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL84A)

ON

“IOT Based Bus Tracking and Monitoring System “

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

HARSHITH.D, USN: 1NH19EC042

H. S. MANJUNATH, USN: 1NH19EC039

AKASH MANGALUR, USN:1NH19EC004

HARSHAVARDHAN.P, USN:1NH19EC041

G. V. SUPREETH, USN:1NH19EC032

Under the guidance of

Mrs. Divya sharma

Sr. ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
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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

It is hereby certified that the project phase-II work entitled "IOT Based Bus Tracking and Monitoring System" is a bonafide work carried out by HARSHITH.D bearing USN: 1NH19EC042, H.S. MANJUNATH bearing USN: 1NH19EC039, AKASH MANGALUR bearing USN: 1NH19EC004, HARSHAVARDHAN. P bearing USN: 1NH19EC041 and G V SUPREETH bearing USN: 1NH19EC032 in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

(Ms. Divya Sharma)

Signature of HOD

(Dr. Aravinda K)

SEE Viva

Name of Examiner

Signature with date

1. Dr. Vani A

..... 10/5/23

2. Ishani Mishra

..... 11/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

“Imaging ML Algo for Agricultural Monitoring System”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

A BHARATH KUMAR	-1NH19EC001
ANANYAA SUNDAR	-1NH19ECO06
CHAKRAVARTHI K	-1NH19EC017
DARSHAN D	-1NH19EC024
DHYAN REDDY S	-1NH19EC029

Under the guidance of

Dr. Gurulakshmi AB

Sr. ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103

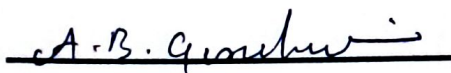


NEW HORIZON COLLEGE OF ENGINEERING

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

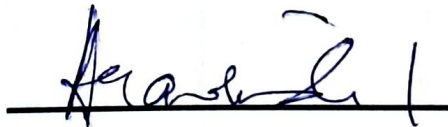
It is hereby certified that the project phase-II work entitled "Imaging ML algo for Agricultural Monitoring System" is a bonafide work carried out by A Bharath Kumar(1NH19EC001), Ananyaa Sundar(1NH19EC006), Chakravarthi K(1NH19EC017), Darshan D(1NH19EC024), Dhyan Reddy(1NH19EC029) in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.



Signature of Guide

(Dr. Gurulakshmi AB)

Associate Professor, NHCE



Signature of HoD

(Dr. Aravinda K)

HoD and Professor, NHCE



Signature of Principal

(Dr. Manjunatha)

Principal, NHCE

EXTERNAL VIVA

Name of Examiner

Signature with date

1. Dr. Vanita

 11/5/23

2. Ishani Mishra

 11/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

GARBAGE OR WASTE CLASSIFICATION USING DEEP LEARNING

A MAJOR PROJECT REPORT

Submitted by

KANUMALA BHARGAV SAI

1NH19EC050

HUSSAIN PEERA

1NH19EC043

HARIKRISHNAN S

1NH19EC040

GOLLAPALLI JYOTHI

1NH19EC035

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Department of Electronics and Communication Engineering



NEW HORIZON COLLEGE OF ENGINEERING

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

CERTIFICATE

Certified that the Major project work entitled **GARBAGE OR WASTE CLASSIFICATION USING DEEP LEARNING** carried out by **Mr. KANUMALA BHARGAV SAI USN: 1NH19EC050, Mr. HUSSAIN PEERA USN: 1NH19EC043, Mr. HARIKRISHNAN S USN:1NH19EC040, Ms. GOLLAPALLI JYOTHI USN: 1NH19EC035** bona fide students of New Horizon College of Engineering in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

Signature of the Guide

Mr. Sabitabrata Bhattacharya

Senior Assistant Professor

Dept. of ECE, NHCE

Signature of the HOD

Dr. Aravinda K.

Professor & HOD

Dept. of ECE, NHCE

Signature of the Principal

Dr. Manjunatha

Principal NHCE

EXTERNAL VIVA

Name of the Examiners

1. Dr. Nani A
2. Ishani Mishra

Signature with Date

1. 11/5/23
2. 11/5/23



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

A PROJECT PHASE - II REPORT (20ECL84A)

ON

“Design of microstrip patch array antenna for Wideband applications”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

in

ELECTRONICS AND COMMUNICATION ENGINEERING

by

DHARSHAN V

1NH19EC028

SWATHI M

1NH19EC117

SREERAKSHA P

1NH19EC746

SHREYA

1NH19EC742

Under the guidance of

Ms. LIPSA DASH

Senior Assistant Professor

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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

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

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bengaluru - 560103



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

Bengaluru 560103

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the major project phase - II entitled "Design of microstrip patch array antenna for Wideband applications" is carried out by DHARSHAN V (1NH19EC028), SWATHI M (1NH19EC117), SREERAKSHA P (1NH19EC746) SHREYA (1NH19EC742), bonafide students of NHCE, Bengaluru in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the Visvesvaraya Technological University, Belagavi during the year 2022 - 2023. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The major project report has been approved as it satisfies the academic requirements in respect of the mini project work prescribed for the said degree.

Signature of the Guide
Ms. Lipsa Dash

Signature of the HoD
Dr. Aravinda K

External Viva

Name of the Examiners

1. Dr. Vani A

2. Ishani Mishra

Signature with Date

[Signature] 11/5/23

[Signature] 11/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A MAJOR PROJECT REPORT (20ECL84A)

ON

“Speech Emotion Recognition”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

K KOUSHIK REDDY	-1NH19EC053
C KUSALANATHA REDDY	-1NH19EC022
G BADRI RAM	-1NH19EC033
G AVINASH	-1NH19EC031
A PAVAN KUMAR REDDY	-1NH19EC704

Under the guidance of

**Ms. DIVYA SHARMA
Sr. ASSISTANT PROFESSOR**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103

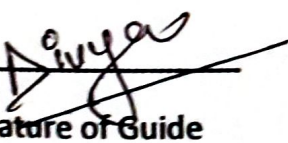


NEW HORIZON COLLEGE OF ENGINEERING

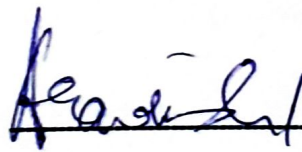
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project work entitled "Speech Emotion Recognition" is a bonafide work carried out by K Koushik Reddy(1NH19EC053), C Kusalanatha Reddy (1NH19EC022), G Badri Ram (1NH19EC033), G Avinash (1NH19EC031), A Pavan Kumar Reddy (1NH19EC704) in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

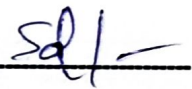

Signature of Guide

Ms. Divya Sharma
Sr Assistant Professor,
Dept. of ECE,NHCE



Signature of HOD
Dr. Aravinda K
Professor & HOD,
Dept. of ECE,NHCE

SEE Viva

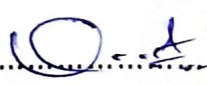
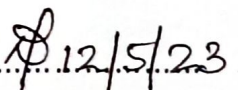


Sd/-
Dr. Manjunatha
Principal, NHCE

Name of Examiner

1. Dr. Vani A
2. Divya Sharma

Signature with date

 12/5/23
 12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

IOT BASED EVM USING RASPBERRY PI PICO

A MAJOR PROJECT REPORT

Submitted by

Darshan Bhavasar G	1NH20EC403
Lalitha C	1NH20EC404
Rajesh Reddy R	1NH20EC407
Likith S	1NH20EC411

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING



NEW HORIZON COLLEGE OF ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Major project work entitled "IOT BASED EVM USING RASPBERRY PI PICO" carried out by **Mr.DARSHAN BHAVASAR G USN: 1NH20EC403, Ms.LALITHA C USN: 1NH20EC404, Mr.RAJESH REDDY R USN:1NH20EC407, Mr.LIKITH S USN: 1NH20EC411** bona fide students of **New Horizon College of Engineering** in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

Signature of the Guide

Mr.Mahendra S N

Assistant Professor,

Dept. of ECE, NHCE

Signature of the HOD

Dr. Aravinda K.

HoD,

Dept. of ECE, NHCE

Sd/-

Dr. Manjunatha

Principal , NHCE

EXTERNAL VIVA

Name of the Examiners

1. Dr. Manu D. K

2. Divya Shaama

Signature with Date

1. [Signature] 15/5/23

2. [Signature] 15/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

**A MAJOR PROJECT REPORT
ON**

“Water Conservation Management Using IOT Meter”

Submitted in partial fulfillment for the award of the degree of

**BACHELOR OF ENGINEERING
IN
ELECTRONICS AND COMMUNICATION ENGINEERING
BY**

K Keerthi Vardan Reddy - 1NH19EC047

K Sai Manikanta - 1NH19EC051

K Venkata Kiran Reddy - 1NH19EC059

T Krishna Chaitanya - 1NH19EC060

Under the guidance of

Mr. Nagendra R

Assistant Professor

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled "Water Conservation Management Using IOT Meter" is a bonafide work carried out by **Mr. K Keerthi Vardan Reddy USN: 1NH19EC047**, **Mr. K Sai Manikanta USN: 1NH19EC051**, **Mr. K Venkata Kiran Reddy USN:1NH19EC059**, **Mr. T Krishna Chaitanya USN: 1NH19EC060** in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library.

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

Signature of Guide

Mr. Nagendra R

Assistant Professor,
Dept. of ECE, NHCE

Signature of HOD

Dr. Aravinda. K.

Professor & HOD,
Dept. of ECE, NHCE

Sd/-

Dr. Manjunatha

Principal

NHCE

SEE Viva

Name of Examiner

1. **Dr. Vani A**.....

2. **Divya Sharma**.....

Signature with date

12/5/23

12/5/23



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

A PROJECT REPORT ON

"Ignition Interlock Device to prevent drunk-driving"

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

KODURU NANI - 1NH19EC056

CHALLA CHANDRASEKHAR - 1NH19EC018

GONUGUNTLA HARSHA VARDHAN - 1NH19EC036

Under the guidance of

Mr. Shashi Kiran S

ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

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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

BENGALURU-560103

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project entitled "Ignition Interlock Device to prevent drunk-driving" is carried out by Mr. Koduru Nani bearing USN: 1NH19EC056, Mr. Challa Chandrasekhar bearing USN: 1NH19EC018 and Mr. Gonuguntla Harshavardhan bearing USN: 1NH19EC036, bonafide students of NHCE, Bengaluru in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication of the Visvesvaraya Technological University, Belagavi during the year 2022-23. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the said degree.

Signature of the Guide

Mr Shashi Kiran S

Assistant Professor
Department of ECE

NHCE, Bengaluru

Signature of the HOD

Dr. Aravinda K

Professor & HOD
Department of ECE

NHCE, Bengaluru

External Viva

Name of the Examiners

1. Ishani Mishra
2. Dr. Vanita

Signature with Date

1. Jmes 11/5/23
2. Q. s. uls/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

**“Automated Attendance system using Arduino, GSM, RFID and
Fingerprint sensor”**

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

K VENKATA PAVAN	-1NH19EC049
GOPA NIRANJAN REDDY	-1NH19EC037
B SHASHANK REDDY	-1NH19EC011
KRISTAM HARSHA VARDHAN	-1NH19EC144
LOKESH ABHINAV	-1NH19EC150

Under the guidance of

Mr. R Nagendra

ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



NEW HORIZON COLLEGE OF ENGINEERING

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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-II work entitled "Automated attendance system using Arduino, GSM, RFID and Fingerprint sensor" is a Bonafede work carried out by K VENKATA PAVAN (1NH19EC049), GOPA NIRANJAN REDDY (1NH19EC037), B SHASHANK REDDY (1NH19EC011), KRISTAM HARSHAVARDHAN (1NH19EC144), LOKESH ABHINAV(1NH19EC150) in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

Mr. R NAGENDRA

Assistant Professor,

Department of ECE, NHCE

Signature of HOD

Dr. ARAVINDA K

Professor & HOD,

Department of ECE, NHCE

Sd/-

Dr. Manjunatha

Principal, NHCE

SEE Viva

Name of Examiner

Signature with date

1. Dr. Vani A

..... 12/5/23

2. Divya Sharma

..... 12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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"Fungal Strain Detection Using Real Time Object Detection Models on Low Powered Systems "

A MAJOR PROJECT REPORT

Submitted by

Deepak kumar .R (1NH17EC406)

Bhavana.S (1NH20EC410)

Gita akshitha (1NH19EC146)

G.Sai Chaitra (1NH19EC149)

Deena.M (1NH19EC025)

In partial fulfillment for the award of the degree of

**BACHELOR OF ENGINEERING
IN
ELECTRONICS AND COMMUNICATION ENGINEERING**



NEW HORIZON COLLEGE OF ENGINEERING

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

Department of Electronics and Communication Engineering

Certificate

Certified that the Project work entitled “Fungal strain detection using real time object detection models on low powered systems” carried out by **Mr. Deepak Kumar R, Bhavana S, Gita Akashita, G Sai Chaitra, Deena M, USN:1NH17EC406, 1NH20EC410, 1NH19EC146, 1NH19EC149, 1NH19EC025** a bonafide student of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year 2022-23. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Projectwork prescribed for the said degree.

Signature of the Guide

Shashikiran S

Associate Professor

Dept. of ECE, NHCE

Signature of HOD

Dr. Aravinda K

Professor and HOD

Dept. of ECE, NHCE

Sd/-

Signature of the Principal

Dr. Manjunatha

Principal

NHCE

External Viva

Name of the examiners

1. Dr. Nani A

Divya Sharma

Signature with Date

12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT

ON

**“Low-Cost Solar Powered Automated Multi-Tasking Agricultural
Robot to improve the Growth and Yield of the Plants
”**

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Namburu Rama Lakshaman	-1NH19EC080
Paladugu Rakesh	-1NH19EC087
Sammata Sathvika	-1NH19EC103
Serreddy Nitish Kumar	-1NH19EC105

Under the guidance of

Ms. Rama P

Sr. ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-2 work entitled "Low-Cost Solar Powered Automated Multi-Tasking Agricultural Robot to improve the Growth and Yield of the Plants" is a bonafide work carried out by Namburu Rama Lakshman (INH19EC087), Paladugu Rakesh(INH19EC087), Sammeta Sathvika (INH19EC103), Sereddy Nitish Kumar(INH19EC105) in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide
Ms. Rama P
Sr. Assistant Professor

Signature of HOD
Dr. Aravinda
Professor & HoD

SEE Viva

Name of Examiner

1. Dr. Vani A
2. Divya Sharma

Signature with date

..... 10.12/23
..... 12/12/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

“Design of FeFET for future memory devices”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

SUPRIYA S	-1NH19EC114
SURYA P	-1NH19EC115
D VAISHALI PATNAIK	-1NH19EC135
POOJA	-1NH19EC734

Under the guidance of

**MR. NITHIN KUMAR NR
ASSISTANT PROFESSOR**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-II work entitled "Design of FeFET for Future Memory Devices" is a bonafied work carried out by Supriya S (1NH19EC114), Surya.P (1NH19EC115), D Vaishali Patnaik (1NH19EC135), Pooja (1NH19EC734) in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

Mr. Nithin Kumar NR

Signature of HOD

Dr. Aravinda K

sd/-

Signature of Principal

Dr. Manjunatha

SEE Viva

Name of Examiner

Signature with date

1. Dr. Vani A

..... 12/5/23

2. Divya Sharma

..... 12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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A PROJECT REPORT ON MEMS BASED HAND GESTURE CONTROLLED ROBOT

in partial fulfilment for the award of the degree of
BACHELOR OF ENGINEERING
IN
ELECTRONICS AND COMMUNICATION

Submitted by

Lavannya L	1NH19EC063
Singamsetty Mohana Varshitha	1NH19EC109
Srividya Chaganti	1NH19EC111
Suchita Hazra	1NH19EC127

Under the guidance of
Ms Mamta B S
Senior Assistant Professor
Department of Electronics and Communication



NEW HORIZON COLLEGE OF ENGINEERING

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

CERTIFICATE

It is hereby certified that the Project Work entitled "MEMS Based Hand Gesture Controlled Robot" is a bonafide work carried out by Ms. Lavannya L USN: 1NH19EC063, Ms. Singamsetty Mohana Varshitha USN: 1NH19EC109, Ms. Srividya Chaganti USN: 1NH19EC111 and Ms. Suchita Hazra USN: 1NH19EC127 in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the New Horizon College of Engineering during the year 2022-23. It is certified that all corrections and suggestions indicated for the Internal Assessment have been incorporated in the report deposited in the departmental library. The final project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the said degree.

Signature of Guide
Ms. Mamta B S
Sr. Assistant Professor
Dept. of ECE, NHCE

Signature of HoD
Dr. Aravinda K
Professor & HoD
Dept. of ECE, NHCE

Sd/-
Dr. Manjunatha
Principal
NHCE

EXTERNAL VIVA

Name of the Examiners

Signature with Date

1. Dr. Vani A
2. Divya Sharma

1. 12/5/23
2. 12/5/23



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

**DESIGN AND IMPLEMENTATION OF 32-BIT MIPS RISC PROCESSOR
WITH FLEXIBLE 5-STAGE PIPELINING AND DYNAMIC THERMAL
CONTROL**

A MAJOR PROJECT REPORT

Submitted by

LOKESH M	1NH19EC065
TEJAS C GHORPADE	1NH19EC119
MANOJ KUMAR S	1NH19EC073
NISHANTH H	1NH19EC085

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING



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 Major project work entitled **DESIGN AND IMPLEMENTATION OF 32-BIT MIPS RISC PROCESSOR WITH FLEXIBLE 5-STAGE PIPELINING AND DYNAMIC THERMAL** carried out by **Mr. LOKESH M USN: 1NH19EC065, Mr. TEJAS C GHORPADE USN: 1NH19EC119, Mr. NISHANTH USN:1NH19EC085, Mr. MANOJ KUMAR S USN: 1NH19EC073** bonafide students of New Horizon College of Engineering in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

Signature of the Guide

Mr. Avinash N J

Assistant Professor

Dept. of ECE, NHCE

Signature of the HOD

Dr. Aravinda K

Professor & HoD, Dept. of ECE

Dept. of ECE, NHCE

EXTERNAL VIVA

Sd/-

Signature of the Principal

Dr. Manjunatha

Principal NHCE

Name of the Examiners

1. Dr. Vani A
2. Divya Sharma

Signature with Date

1. 12/5/23
2. 12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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"DETECTION OF AUTISM SPECTRUM DISORDER"

A MAJOR PROJECT REPORT - PHASE 2

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

Mamatha S-1NH19EC071

Jaswanthi P- 1NH19EC086

Swathi K- 1NH19EC116

Yashwitha L- 1NH19EC126

Under the guidance of

Mr. Parag Jain

ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the major project phase-I work entitled "DETECTION OF AUTISM SPECTRUM DISORDER" is a bonafide work carried out by Ms. Mamatha S USN:1NH19EC071, Jaswanthi P , USN:1NH19EC086, Swathi K USN:1NH19EC116, Yashwitha L USN:1NH19EC126 in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide

Mr. Parag Jain

Assistant Professor,

Dept. of ECE, NHCE

Signature of the HOD

Dr. Aravinda K

Professor & HOD,

Dept. of ECE, NHCE

EXTERNAL VIVA

Name of the Examiners

1. Dr. Vani A
2. Divya Sharma

Signature with Date

1. [Signature] 12/5/23
2. [Signature] 12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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TESLA STOCK PRICE PREDICTION USING MACHINE LEARNING MODELS

A MAJOR PROJECT REPORT

Submitted by

ROHIT P - 1NH19EC097

SACHIN R – 1NH19EC100

SHREYA C – 1NH19EC108

SIVA S – 1NH19EC110

CHAYANATH – 1NH20EC402

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING



NEW HORIZON COLLEGE OF ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Major project work entitled **TESLA STOCK PRICE PREDICTION USING MACHINE LEARNING MODELS** carried out by **Mr.ROHIT P USN: 1NH19EC097, Mr.SACHIN R USN: 1NH19EC100, Ms.SHREYA C USN:1NH19EC108, Mr.SIVA S USN: 1NH19EC110,Mr.CHAYANATH USN:1NH20EC402** bona fide students of New Horizon College of Engineering in partialfulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

Signature of the Guide

Ms.Mamta B Savadatti

Senior Assistant Professor,

Dept. of ECE,NHCE

Signature of the HOD

Dr. Aravinda K.

HoD,

Dept. of ECE,NHCE

Signature of the Principal

Dr. Manjunatha

Principal ,NHCE

EXTERNAL VIVA

Name of the Examiners

1. Dr. VANI.A

2. Divya Sharma

Signature with Date

1. [Signature] 12/5/23

2. [Signature] 12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A) ON

" Smart Security Patrolling Robot using Raspberry Pi"

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING BY

**PUNITH M-1NH19EC092
RUTHESH S-1NH19EC098
SHALINI M-1NH19EC107
SRUSHTI GOUDAR-1NH19EC112**

Under the guidance of

**Ms. Salna Joy
ASSISTANT PROFESSOR,
Department of ECE, NHCE**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited by
NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



NEW HORIZON COLLEGE OF ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project phase-1 work entitled "Smart Security Patrolling Robot Using Raspberry Pi" carried out by **Mr. Punith M USN: 1NH19EC092, Mr. Ruthesh S USN: 1NH19EC098, Ms. Shalini M USN:1NH19EC107, Ms. Srushti Goudar USN: 1NH19EC112** bona fide students of **New Horizon College of Engineering** in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the said Degree.

Signature of the Guide

Ms. Salna Joy

Assistant Professor,

Dept. of ECE,

NHCE

Signature of the HOD

Dr. Aravinda K.

Prof. & HoD,

Dept. of ECE,

NHCE

EXTERNAL VIVA

Name of the Examiners

Signature with Date

1. Ishani Mishra

2. Dr. Ranu DK

1. Jms 13/5/23

2. [Signature] 13/5/23



NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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MAJOR PROJECT REPORT (20ECL84A)

ON

“IOT Based Weather Monitoring System”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

M.Tejasree -1NH19EC067

Settivarl Ragasahlthi -1NH19EC143

Swathi M D -1NH19EC118

Under the guidance of

**Mr. Richard Lincoln Paulraj
SENIOR ASSISTANT PROFESSOR**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103

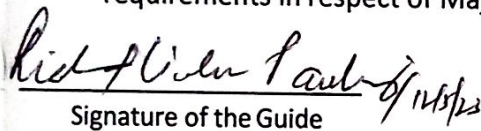


Department of Electronics and Communication Engineering

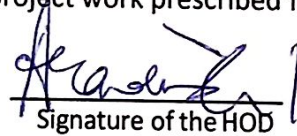
CERTIFICATE

Certified that the Major project work entitled **Weather Monitoring system** carried out by **M. Tejasree**
USN: 1NH19EC067, S. Ragasahithi USN: 1NH19EC143, Swathi MD USN:1NH19EC118

bona fide students of New Horizon College of Engineering in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.


Signature of the Guide

Mr. Richard Lincoln Paulraj
Senior Assistant Professor,
Dept. of ECE, NHCE


Signature of the HOD

Dr. Aravinda K
Professor & HOD, Dept. of ECE,
NHCE

Sd/-

Dr. Manjunath
Principal NHCE

EXTERNAL VIVA

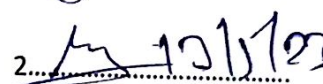
Name of the Examiners

1. Ishani Mishra

2. Dr. Manjunath

Signature with Date

1.  13/5/23

2.  13/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

Accredited by NAAC with 'A' Grade.

REMOTE DRIVER MONITORING SYSTEM

A MAJOR PROJECT REPORT

Submitted by

VINUTH KUMAR **1NH19EC124**

SAGAR BASAVARAJ SHETTAR **1NH19EC101**

STANLY DAVIS **1NH19EC113**

R HARSHITH GOWDA **1NH19EC093**

In partial fulfillment of the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Major project work entitled **REMOTE DRIVER MONITORING SYSTEM** carried out by **Mr. VINUTH KUMAR USN: 1NH19EC124, Mr. SAGAR BASAVARAJ SHETTAR USN: 1NH19EC101, Mr. STANLY DAVIS USN:1NH19EC113, Mr. R HARSHITH GOWDA USN: 1NH19EC093** Bonafide students of New Horizon College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year **2021-2022**. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final Report has been approved as it satisfies the academic requirements in respect of the Major project work prescribed for the said Degree.



Signature of the Guide

Mr. Sabitabrata Bhattacharya
Senior Assistant Professor,
Dept. of ECE, NHCE



Signature of the HOD

Dr. Aravinda K.
Professor & HoD, Dept. of ECE
NHCE

Sd/-

Signature of the Principal

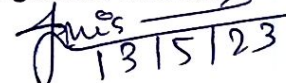
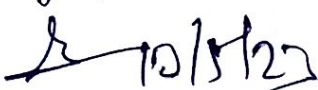
Dr. Manjunatha
Principal NHCE

EXTERNAL VIVA

Name of the Examiners

1. **Ishani Mishra**
2. **Dr. Manu D.K**

Signature with Date

1. 
13/5/23
2. 
10/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

“Robotic car using Node MCU ESP8266 Wi-Fi Module”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Sayan Maitra -1NH19EC104

Rakesh Kumar Patel -1NH19EC095

Pattubala Pavan -1NH19EC088

Shalk Moosa -1NH19EC106

Under the guidance of

Ms. Kavita A Patil

ASSISTANT PROFESSOR,
Department of ECE, NHCE

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-II work entitled "Robotic car using NodeMCU ESP8266 Wi-Fi Module" is a bonafide work carried out by **PATTUBALA PAVAN USN: 1NH19EC088, RAKESH KUMAR PATEL USN: 1NH19EC095, SAYAN MAITRA USN: 1NH19EC104, SHAIK MOOSA USN: 1NH19EC106** in partial fulfilment for the award of Bachelor of Engineering in **ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide
(Ms. KAVITA A PATIL)

Signature of HOD
(Dr. ARAVINDA K)

SEE Viva

Name of Examiner

Signature with date

1. Ishani Mishra

.....
13/5/23

2. Dr. Lane D.K

.....
12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

SMART USE OF SOLAR RADIATION IN AGRICULTURE

PURPOSE

A MAJOR PROJECT REPORT PHASE-2

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

MADANAPALLI RAJASEKHAR	-1NH19EC068
MAHESHWAR REDDY	- 1NH19EC069
M.SAIKIRAN	- 1NH19EC072
M.B. ROHITH REDDY	- 1NH19EC074

Under the guidance of

Ms. MONIKA GUPTA

Sr. ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the major project phase-2 work entitled "SMART USE OF SOLAR RADIATION IN AGRICULTURE PURPOSE" is a bonafide work carried out by Mr. MAHESHWAR REDDY USN:1NH19EC069, M. SAI KIRAN USN: 1NH19EC072, MADANAPALLI RAJASEKHAR USN:1NH19EC068, M.B. ROHITH REDDY USN:1NH19EC074 in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide

Ms. Monika Gupta

Senior Assistant Professor

Dept. of ECE, NHCE

Signature of the HOD

Dr. Aravinda K

Professor & HOD

Dept. of ECE, NHCE

Sd/-

Dr. Manjunatha

Principal, NHCE

EXTERNAL VIVA

Name of the Examiners

1. Ishani Mishra

2. Dr. Hanu D. K.

Signature with Date

1. [Signature]
13/5/23

2. [Signature]
13/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

“Microstrip Patch Antenna For 5G Communication”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Krishnendh J - 1NH19EC062

Lokesh Biswas M - 1NH19EC064

Nidhi B Achar - 1NH19EC081

Sriram B - 1NH19EC152

Under the guidance of

Mr. Parag Jain

ASSISTANT PROFESSOR

Department of ECE, NHCE

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-I work entitled "Microstrip Patch Antenna For 5G Communication" is a bonafide work carried out by Mr. KRISHNENDH J bearing USN: 1NH19EC062, Mr. LOKESH BISWAS M bearing USN: 1NH19EC064, Ms. NIDHI B ACHAR bearing USN: 1NH19EC081, and Mr. SRIRAM B bearing USN: 1NH19EC152 in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

(Mr. PARAG JAIN)

Signature of HOD

(Dr. ARAVINDA K)

SEE Viva

Name of Examiner

1. ...Jehani Mishva.....
2. Dr. Aravinda K.....

Signature with date

Jais
.....13/5/23.....
Aravinda K
.....13/5/23.....



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

“Embedded Rover for Agricultural Monitoring”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Bhargav Dayal	-1NH19EC134
Sagar S	-1NH19EC102
R Sukitha	-1NH19EC094
Devanshi Shrivastava	-1NH19EC026
V Gectanjali	-1NH19EC120

Under the guidance of

Dr.Sanjeev Sharma
PROFESSOR AND DEAN,
NHCE

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE)
Accredited by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



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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

It is hereby certified that the project phase-II work entitled “**Robotic car using NodeMCU ESP8266 Wi-Fi Module**” is a bonafide work carried out by **BHARGAV DAYAL USN: INH19EC134, SAGAR S USN: INH19EC102, R SUKITHA USN: INH19EC094, DEVANSHI SHRIVASTAVA USN: INH19EC026, V GEETHANJALI USN: INH19EC120** in partial fulfilment for the award of **Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

(Dr.SANJEEV SHARMA)

Signature of HOD

(Dr. ARAVINDA K)

SEE Viva

Name of Examiner

1.Ishani Mishra.....

2.Dr. Anand K.....

Signature with date

Ishani 13/5/23

Anand K 12/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

EMISSION TESTING IN VEHICLES

A MAJOR PROJECT REPORT

Submitted by

V Shruthi-1NH19EC121

Vinay Kumar KN -1NH19EC123

Krishna Chaithanya S -1NH19EC061

Varshitha B-1NH19EC122

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING


IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Major project work entitled **EMISSION TESTING IN VEHICLES** carried out by **Ms. V Shruthi USN: 1NH19EC121, Mr. Vinay Kumar KN USN: 1NH19EC123, Mr. Krishna Chaithanya S USN:1NH19EC061, Ms. Varshitha B USN: 1NH19EC122** bonafide students of New Horizon College of Engineering in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.



Signature of the Guide

Mrs. Ishita Deb

Assistant Professor,

Dept. of ECE, NHCE



Signature of the HOD

Dr. Aravinda K.

Professor & HoD, Dept. of ECE

NHCE

Sd/-

Dr. Manjunatha

Principal NHCE


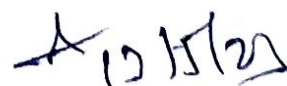
Bangalore

EXTERNAL VIVA

Name of the Examiners

1. **Ishani Mishra**
2. **Dr. Manjunatha**

Signature with Date

1. 
13/5/23
2. 
13/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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Accredited by NAAC with 'A' Grade.

A PROJECT PHASE-1 REPORT (20ECL78A)

ON

" Bluetooth controlled robot and collision detection

with IoT based humidity sensor "

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

MITHUN P-1NH190EC077

BIKRAM KUMAR -1NH19EC709

ASHWIN B NAYAK -1NH19EC706

TARUN VINAYAK – 1NH19EC750

JOUSHUA STANLEY -1NH19EC718

P SRI HARSHA -1NH19EC089

Under the guidance of

Ms. BABY CHITHRA R

Sr. ASSISTANT PROFESSOR

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

ENGINEERING

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited by
NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



NEW HORIZON COLLEGE OF ENGINEERING

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

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Major project work entitled **ANALYSIS OF AIR POLLUTION IN A SMART CITY INFRASTRUCTURE USING IOT** carried out by Mr. MITHUN P bearing USN: 1NH19EC077, Mr. P SRI HARSHA CHAKRAVARTHI bearing USN: 1NH19EC089, Mr. TARUN VINAYAK S bearing USN: 1NH19EC750, Mr. BIKRAM KUMAR DAULYAL bearing USN: 1NH19EC709, Mr. JOSHUA STANLEY bearing USN: 1NH19EC718, Mr. ASHWIN B NAYAK bearing USN: 1NH19EC706 students of New Horizon College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2022-2023. It is certified that /suggestions indicated for Assessment have been incorporated in the Report the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

Signature of the Guide

Ms Baby Chithra R

Assistant Professor

Signature of the HOD

Dr. Aravinda K

Principal, NHCE Dept. of ECE, NHCE

Dept. of ECE, NHCE

Signature of the Principal

Dr. Manjunatha

EXTERNAL VIVA

Name of the Examiners

1. Ishani Mishra

2. Dr. Manu D.K

Signature with Date

1. [Signature] 12/5/23

2. [Signature] 10/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT REPORT

ON

“ADVANCED HOME AUTOMATION AND SECURITY SYSTEM”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Y SAI KUMAR REDDDY	-1NH19EC125
MITHUN M	-1NH19EC147
M YASWANTH	-1NH19EC079
M SAI VIGNESH	-1NH19EC078

Under the guidance of

Dr. ARUN KUMAR
ASSOCIATE PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-I work entitled "ADVANCED HOME AUTOMATION AND SECURITY SYSTEM" is a bonafide work carried out by Mr. Y SAI KUMAR REDDY bearing USN: 1NH19EC125 , Mr. MITHUM M bearing USN: 1NH19EC147, Ms. M SAI VIGNESH bearing USN: 1NH19EC078, and Mr. M YASHWANT bearing USN: 1NH19EC079 in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide
(Dr. ARUN KUMAR)
Associate Professor,
Department of
ECE, NHCE

Signature of HOD
(Dr. ARAVINDA K)
HOD, Department of
ECE, NHCE

Sd/-
(Dr. Manjunatha)
Principal, NHCE

SEE Viva

Name of Examiner

1. Ishani M Shiva
2. Dr. Manjunatha

Signature with date

13/5/23

17/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A)

ON

“Traffic Rule Violation Recognition For

Two Wheeler Using Yolo”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

UJWAL A REDDY -1NH19EC138

RISHAB C LAL -1NH19EC738

VINAY R -1NH19EC756

ARUN DEV M -1NH19EC705

Under the guidance of

Ms. BABY CHITHRA

Sr. ASSISTANT PROFESSOR

DEPARTMENT OF ELECTRONICS AND

COMMUNICATION ENGINEERING

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-I work entitled "TRAFFIC RULES VIOLATION RECOGNITION FOR TWO-WHEELER USING YOLO ALGORITHM" is a bonafide work carried out by UJWAL A REDDY (1NH19EC138), RISHAB C LAL (1NH19EC738), VINAY R (1NH19EC756), ARUN DEV M (1NH19EC705) in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

Ms. BABY CHITHRA

Signature of HOD

Dr. ARVINDA K

for

Signature of Principal

Dr. MANJUNATHA

SEE Viva

Name of Examiner

1. Ishani Mishra
2. Dr. Manu R.K

Signature with 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

A PROJECT PHASE-2 REPORT

ON

“S-KART USING RFID TECHNOLOGY”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Gubba.Pavan Kalyan	-1NH19EC716
Abhijeet Parmar	-1NH19EC733
N. Tejaswini	-1NH19EC726
Kruthika R	-1NH19EC722

Under the guidance of

Dr. Jayanthi M
ASSOCIATE PROFESSOR

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
by NAAC 'A', Accredited by NBA**

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

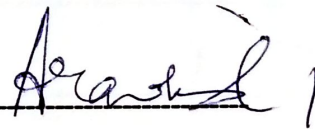
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-I work entitled "S-KART USING RFID TECHNOLOGY" is a bonafide work carried out by Gubba. Pavan Kalyan (1NH19EC716), Abhijeet Parmar(1NH19EC733), N. Tejaswini (1NH19EC726), Kruthika R(1NH19EC722) in partial fulfilment for the award of **Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.


Signature of Guide
Dr. Jayanthi M
Associate Professor

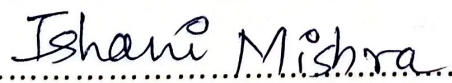
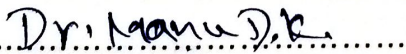

Signature of
principal
Dr. Manjunatha,
,NHCE


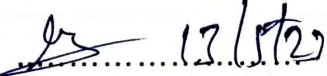

Signature of
HOD Dr.
Aravinda
Professor & HoD

SEE Viva

Name of Examiner

Signature with date

1. 
.....
2. 
.....

1. 
.....13/5/23
2. 
.....13/5/23



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

MULTI-TASKING SMART AGRICULTURAL ROBOT

A MAJOR PROJECT REPORT

Submitted by

HARI RAMA SUBRAMANYAM MORLA-1NH19EC148

STEVEN PAUL CX-1NH19EC748

TELKAR SAI GOPICHAND-1NH19EC751

VEMPALLI RAJA SEKHAR RAJU-1NH19EC755

VISHWAS K-1NH19EC757

In partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

In

ELECTRONICS & COMMUNICATION



**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

BENGALURU-560103

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Major project entitled "Multi-Tasking Smart Agricultural Robot" is carried out by **Mr. Subrananyam Morla bearing USN: 1NH19EC148, Mr. Steven Paul CX bearing USN: 1NH19EC748, Mr. Telkar Sai Gopichand bearing USN: 1NH19EC751, Mr. Vempalli Raja Sekhar Raju bearing USN: 1NH19EC755 and Mr. Vishwas K bearing USN: 1NH19EC757**, bonafide students of **New Horizon College of Engineering, Bengaluru** in partial fulfillment for the award of **Bachelor of Engineering in Electronics and Communication** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Major project report has been approved as it satisfies the academic requirements in respect of the Major project work prescribed for the said degree.

Richard Lincoln Paulraj 13/5/23

Signature of the Guide

Mr. Richard Lincoln Paulraj

Senior Assistant Professor

Department of ECE

NHCE, Bengaluru

Aravinda K

Signature of the HOD

Dr. Aravinda K

Professor & HOD

Department of ECE

NHCE, Bengaluru

Sd/-

Signature of the Principal

Dr. Manjunatha

Principal NHCE,

Bengaluru

External Viva

Name of the Examiners

1. Dr. Manu D.K.

2. Divya Sharma

Signature with Date

1. Manu 15/5/23

2. Divya 15/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL84A)

ON

“Smart Surveillance Robot”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

Lakshya Sharma -1NH19EC132

Lingala Sakthidhar Reddy -1NH19EC723

Nusum Mansoor Ali -1NH19EC729

E Manoj Kumar -1NH19EC725

Yeduguri Vamsidhar Reddy -1NH19EC759

Under the guidance of

**Ms. ISHANI MISHRA
Sr. ASSISTANT PROFESSOR**

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-I work entitled "Smart Surveillance Robot" is a bonafide work carried out by Lakshya Sharma (1NH19EC132), Lingala Sakthidhar Reddy (1NH19EC723), Nusum Mansoor Ali (1NH19EC729), E Manoj Kumar (1NH19EC725), Yeduguri Vamsidhar Reddy (1NH19EC759), in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide
Ms. ISHANI MISHRA
Senior Assistant Professor
Dept. of ECE, NHCE

Signature of HOD
Dr. ARVINDA K.
Professor & HoD
Dept. of ECE, NHCE

Sd/-

Dr. MANJUNATHA
Principle, NHCE
Bangalore

SEE Viva

Name of Examiner

1. Dr. Arvinda K.
2. Divya Sharma

Signature with date



NEW HORIZON COLLEGE OF ENGINEERING

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A MAJOR PROJECT REPORT

ON

“WOMEN SAFETY APPLICATION”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

GOPU SYAM SUNDAR -1NH19EC715

ILLURI NAGARAJU -1NH19EC717

MAKAM REDDYSUNIL -1NH19EC724

SRINATH D V -1NH19EC747

Under the guidance of

Ms. ISHANI MISHRA

Sr. ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-I work entitled "WOMEN SAFETY APPLICATION" is a bonafide work carried out by **GOPU SYAM SUNDAR(1NH19EC715), ILLURI NAGARAJU(1NH19EC717), MAKAM REDDYSUNIL(1NH19EC724), SRINATH D V(1NH19EC747)** in partial fulfilment for the award of Bachelor of Engineering in **ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide

Ms. Ishani Mishra
Sr. Assistant Professor,
Dept of ECE, NHCE

Signature of the HOD
Dr. Aravinda K

Prof. & HOD,
Dept of ECE, NHCE

Sd/-

Dr. Manjunatha
Principal,
NHCE

SEE Viva

Name of Examiner

1. Dr. Manu D. K

2. Divya Sharma

Signature with date

[Signature] 18/5/23

[Signature] 18/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL84A)

ON

“Explosive Ordnance Disposal Using Arduino”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

A N SOMANNA

1NH19EC700

KARTHIK K B

1NH19EC720

NAGENDRA RAO S N

1NH19EC727

RITHIK S M

1NH19EC739

Under the guidance of

Mr. AJAY SUDHIR BALE

Assistant Professor

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

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Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



NEW HORIZON COLLEGE OF ENGINEERING

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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-I work entitled "**Explosive Ordnance Disposal Using Arduino**" is a bonafide work carried out by **A N SOMANNA(1NH19EC700), KARTHIK K B (1NH19EC720), NAGENDRA RAO S N (1NH19EC727), RITHIK S M (1NH19EC739)** in partial fulfillment for the award of **Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide
(Mr. AJAY SUDHIR BALE)

-Sd

Signature of Principal
(Dr. MANJUNATHA)

Signature of HOD
(Dr. ARAVINDA K)

SEE Viva

Name of Examiner

1. Dr. Hanu DK
.....

2. Divya Sharma
.....

Signature with date

..... 11/5/23

..... 15/5/23.....



NEW HORIZON COLLEGE OF ENGINEERING

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

"DESIGN AND ANALYSIS OF IOT BASED POLLUTION MONITORING SYSTEM"

A MAJOR PROJECT REPORT

Submitted by

BHOOMIKA P - 1NH19EC708

SHANIKA K S -1NH19EC741

TRISHA CHATTERJEE -1NH19EC131

PREETHISREE V -1NH19EC140

***In partial fulfilment for the award of the degree
of***

**BACHELOR OF ENGINEERING
IN
ELECTRONICS AND COMMUNICATION
ENGINEERING**



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 major project work entitled **Design and Analysis of IOT Based Pollution Monitoring System** carried out by, **BHOOMIKA P (1NH19EC708)**, **TRISHA CHATTERJEE (1NH19EC131)**, **SHANIKA K S (1NH19EC741)**, **PREETHISREE V (1NH19EC140)** bonafide students of **New Horizon College of Engineering** in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major Project work prescribed for the said degree.

Signature of Guide

Mr. NAGENDRA R

Assistant Professor,

Dept. of ECE,NHCE

Signature of HOD

Dr. ARAVINDA K

Professor & HoD

Dept. of ECE,NHCE

Sd/-

Dr. MANJUNATHA

Principal NHCE

External Viva

Name of Examiner

1. Dr. Manu De

2. Divya Shaama

Signature with date

Manu De 15/5/23

Divya Shaama 15/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

MAJOR PROJECT REPORT

ON

"IOT BASED HUMAN SECURITY SYSTEM"

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

ABHIJIT G NAIK	-1NH19EC136
DEVARASI SWETHA	-1NH19EC712
ANILA D	-1NH19EC703
SHWETHA S	-1NH19EC743

Under the guidance of

Ms. BHAWNA KHOKHER
ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
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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

It is hereby certified that the major project work entitled "IOT Based Human Security System" is a bonafide work carried out by ABHIJIT G NAIK (1NH19EC136), DEVARASI SWETHA (1NH19EC712), ANILA D (1NH19EC703), SHWETHA S (1NH19EC743) in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide
Ms. Bhawana Khokher
Assistant Professor
Department of ECE
NHCE, Bengaluru

Signature of the HOD
Dr. Aravinda K
Professor & HOD
Department of ECE
NHCE, Bengaluru

Sd/-

Dr. Manjunatha
Principal NHCE,
Bengaluru

External Viva

Name of Examiner

Signature with date

1. Dr. Manu D.K

15/5/23

2. Divya Sharma

15/5/23



NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
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A PROJECT PHASE-2 REPORT (20ECL78A)

ON

“Face Recognition for Visually Impaired”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

P.Chaveen reddy	-1NH19EC736
P.Yashwanth	-1NH19EC732
T.Vedesh	-1NH19EC752
S.Reddi Yaswanth	-1NH19EC744
K.Waseem	-1NH19EC719

Under the guidance of

Mr.Avinash N J
ASSISTANT PROFESSOR

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-I work entitled "FACE RECOGNITION FOR VISUALLY IMPAIRED" is a bonafide work carried out by P.Yashwanth (1NH19E732), P.Chaveen reddy (1NH19EC736), T.Vedesh (1NH19EC752), S.Reddi Yaswanth(1NH19EC744), K.Waseem (1NH19EC719) in partial fulfilment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide
Mr. Avinash N J
Assistant Professor

Signature of HOD
Dr. Aravinda K
Professor & HoD

Signature of the principal
Dr. Manjunatha
Principal NHCE

SEE Viva

Name of Examiner

1. Dr. Manu DK

2. Divya Sharma

Signature with date

15/11/22

15/11/23



NEW HORIZON COLLEGE OF ENGINEERING

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A PROJECT REPORT (20ECL78A)

ON

"Smart Helmet with Alcohol Using Raspberry Pi"

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

AASHISH M	-1NH19EC701
ATHUL GRACIOUS	-1NH19EC707
KEVIN J DENNIS	-1NH19EC721
N VAISHNAVI	-1NH19EC139

Under the guidance of

Mr. SRINIVAS BABU N

ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
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Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103

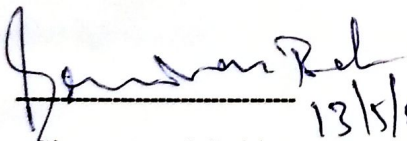


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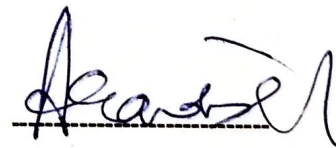
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CERTIFICATE

It is hereby certified that the project phase-I work entitled "Smart Helmet with Alcohol Detection using Raspberry Pi" is a bonafide work carried out by AASHISH M(1NH19EC701), ATHUL GRACIOUS(1NH19EC707), KEVIN J DENNIS(1NH19EC721), P N VAISHNAVI(1NH19EC139) in partial fulfilment for the award of **Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING** of the New Horizon College of Engineering during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.


13/5/23

Signature of Guide

(Mr. SRINIVAS BABU N)



Signature of HOD

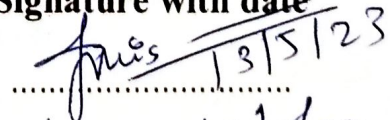
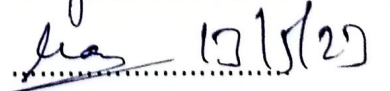
(Dr. ARAVINDA K)

SEE Viva

Name of Examiner

1. Ishani Mishra
2. Dr. Manu D.K

Signature with 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

A PROJECT PHASE-II REPORT (20ECL78A)

ON

“Spectrum Sensing Using Energy Detection for 4G Waveform”

Submitted in partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

G. Ahalya -1NH19EC714

P. Anudeep Kumar Reddy -1NH19EC730

S. Gnapika -1NH19EC745

U. Naga Nanditha -1NH19EC754

UNDER THE GUIDANCE OF

Amarjeet Pal Cheema

Sr.Assistant professor

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited
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Accredited by NAAC with 'A' Grade, Accredited by NBA

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-II work entitled "Spectrum Sensing Using Energy Detection for 4G Waveform" is a bonafide work carried out by G.Ahalya (1NH19EC714), P.Anudeep KumarReddy(1NH19EC730), S.Gnapika(1NH19EC745), U.Naga Nanditha (1NH19EC754) in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the New Horizon College of Engineering during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Final-project report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said degree.

Signature of the Guide

Amarjeet Pal Cheema

Senior assistant professor

Signature of the HOD

Dr. ARAVINDA K

Professor & HOD

Signature of the Principal

Dr. Manjunatha

Principal, NHCE

EXTERNAL Viva

Name of Examiner

Signature with date

1. Dr. Manjunatha

2. Divya Sharma



NEW HORIZON COLLEGE OF ENGINEERING

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

A PROJECT PHASE-2 REPORT (20ECL78A) ON

“GARBAGE SEGRIGATION DEVICE USING SENSORS”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

ASHRITHA CHALLA 1NH19EC710

KUSUMA SAGAR 1NH19EC013

MD AFSAR 1NH20EC405

SWATHI 1NH18EC752

Under the guidance of

Ms. ISHITA DEB

ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited by

NAAC with 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



NEW HORIZON COLLEGE OF ENGINEERING

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

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

It is hereby certified that the project phase-I work entitled "GARBAGE SEGRIGATION DEVICE USING SENSORS" is a bonafide work carried out by ASHRITHA CHALLA(1NH19EC710), KUSUMA SAGAR(1NH19EC013), M.D.AFSAR(1NH20EC405), SWATHI.A (1NH18EC752) in partial fulfillment for the award of Bachelor of Engineering in ELECTRONICS AND COMMUNICATION ENGINEERING of the New Horizon College of Engineering during the year 2022-2023 . It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide

(Ms. ISHITA DEB)

Assistant professor

Dept. of ECE, NHCE

Signature of the HOD

(Dr. ARAVINDA K)

Professor & HOD

Dept. of ECE, NHCE

Signature of the Principle

Sd/- (Dr. Manjunatha)

Principle, NHCE

Bangalore

SEE VIVA

Name of Examiner

1. Dr. Manu D K

2. Divya Sharma

Signature with date

Dr. Manu D K
15/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

LANE DETECTION

A MAJOR PROJECT PHASE-2

Submitted by

TEJAS B MUKESH - 1NH19EC137

UDAY KIRAN - 1NH19EC753

M D MUZAMMIL AHMED - 1NH20EC413

In partial fulfillment for the award of degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING



NEW HORIZON COLLEGE OF ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that Major project work titled **LANE DETECTION** carried out by **Mr. Tejas B Mukesh USN: 1NH19EC137, Mr. Uday Kiran USN: 1NH19EC753, Mr. M D Muzammil Ahmed USN:1NH20EC413** bona fide students of New Horizon College of Engineering in partial fulfilment for award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year **2022-2023**. It is hereby certified that all corrections/suggestions indicated for the Assessment have been incorporated in Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

Signature of the Guide

Ms. Salna Joy

Assistant Professor

Dept. of ECE, NHCE

Signature of the HOD

Dr. Aravinda K.

Professor & HoD, Dept. of ECE

NHCE

Signature of the Principal

Dr. Manjunatha,

Principal NHCE

EXTERNAL VIVA

Name of the Examiners

- 1.
- 2.

Signature with Date

1. 15/5/23
- 2.



NEW HORIZON COLLEGE OF ENGINEERING

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

IOT BASED HEALTH MONITORING SYSTEM WITH DISEASES PREDICTION USING ML

A MAJOR PROJECT REPORT

Submitted by

P SUMYUKTHAA	-1NH19EC731
RAKSHITHA L	- 1NH19EC737
YATHIKA EVANGELIN	- 1NH19EC758

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Under the guidance of

Ms. MONIKA GUPTA

SENIOR. ASSISTANT PROFESSOR

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

(Autonomous Institution Affiliated to VTU & Approved by AICTE) Accredited by

NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, Bangalore – 560103



NEW HORIZON COLLEGE OF ENGINEERING

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

Department Of Electronics and Communication Engineering

CERTIFICATE

Certified that the Major project work entitled **IoT Based Health Monitoring System with Disease Prediction using ML** carried out by **RAKSHITHA L:1NH19EC737, P SUMYUKTHAA:1NH19EC731, YATHIKA EVANGELIN: 1NH19EC758** bonafide students of **New Horizon College of Engineering** in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

Signature of the Guide

Ms. Monika Gupta

Senior Assistant Professor,

Dept. of ECE,

NHCE

Sd/-

Dr. Manjunatha

Principal, NHCE

Bangalore

Signature of the HOD

Dr. Aravinda K

Prof. & HoD,

Dept. of ECE

NHCE

EXTERNAL VIVA

Name of the Examiners

1. Dr. Manu D.K

2. Divya Sharma

Signature with Date

1. 15/5/23

2. 15/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

MAJOR PROJECT PHASE-2 REPORT

ON

" ANALYSIS , DESIGN AND IMPLEMENTATION OF 6T SRAM "

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

BY

SAHANA KULKARNI -1NH19EC740

TANUSHREE ARAVIND KUMBHARE -1NH19EC749

NANDHINI M -1NH19EC728

DAMINI MADHURIKA M -1NH19EC711

Under the guidance of

Mr. PUVIRAJAN T

SENIOR ASSISTANT PROFESSOR

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

(Autonomous Institution Affiliated to VTU & Approved by AICTE)

Accredited by NAAC 'A', Accredited by NBA

Outer Ring Road, Panathur Post, Kadubeesanahalli, 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

Department of Electronics and Communication Engineering

Certificate

It is hereby certified that the Major project work entitled "ANALYSIS, DESIGN AND IMPLEMENTATION OF 6T SRAM" carried out by **Ms. SAHANA KULKARNI USN: 1NH19EC740, Ms. TANUSHREE ARAVIND KUMBHARE USN: 1NH19EC749, Ms. NANDHINI M USN: 1NH19EC728 and Ms. DAMINI MADHURIKA M USN: 1NH19EC711** bonafide students of New Horizon College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The final report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said degree.

Doc
Signature of the Guide

Mr. Puvirajan T

Senior Assistant Professor,
Dept. of ECE, NHCE
Bangalore

Signature of the HOD

Dr. Aravinda K

Prof. & HoD,
Dept. of ECE, NHCE
Bangalore

Sd/-

Dr. Manjunatha

Principal, NHCE
Bangalore

EXTERNAL VIVA

Name of the examiners

1. Dr. Manu D. K
2. Divya Sharma

Signature with Date

Manu D. K

15/5/23



NEW HORIZON COLLEGE OF ENGINEERING

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

“DESIGN AND DEVELOPMENT OF SMART HYDROPONIC SYSTEM”

A MAJOR PROJECT REPORT

Submitted by

AMRUTH KIRAN S N - 1NH20EC401

AJAYA ARIKATTI - 1NH20EC400

NIRANJAN B N - 1NH20EC406

SIDDESHA M - 1NH20EC409

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING



NEW HORIZON COLLEGE OF ENGINEERING

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Major project work entitled “**Design & Development of Smart Hydroponic System**” is carried out by **Mr. AMRUTH KIRAN S N bearing USN: 1NH20EC401, Mr. AJAYA ARIKATTI bearing USN: 1NH20EC400, Mr. NIRANJAN B N bearing USN: 1NH20EC406 and Mr. SIDDESHA M bearing USN: 1NH20EC409**, bonafide students of New Horizon College of Engineering in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visveswaraya Technological University, Belagavi** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The Final-Report has been approved as it satisfies the academic requirements in respect of Major project work prescribed for the said Degree.

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