

Department of Electrical and Electronics Engineering

Project Phase-II-EEE84

Rubrics for Main Project (Phase-II) :

S. No.	Assessment Metric	Rubrics for Assessment			POs addressed
		Excellent (5)	Good (3)	Fair (2)	
1.	Connectivity of Phase-I with Phase-II	Able to properly provide connectivity of Phase-I with Phase-II. Also able to appropriately analyse results of Phase-I.	Able to connect Phase-I and Phase-II with partial analysis of results of Phase-I.	Not able to connect Phase-I and Phase-II properly.	PO1, PO2, PO12
2.	Are Project management principles such as Individual / Team management with ethical principles are followed?	Treats team members respectfully and manages or resolves conflicts in ways that strengthen overall team cohesiveness.	Respectfully identifies and acknowledges conflict to work towards resolution.	Respectfully redirects focus away from conflict to the immediate task at hand.	PO8, PO9, PO10, PO11
3	Whether the student is able to learn the latest technologies and modern engineering tools for realizing the project?	Is able to quickly and effectively learn new tools and skills	Is able to eventually learn new tools and skills, but is sometimes inefficient and uncomfortable doing so	Is unable to independently learn new tools and skills; requires assistance	PO5
4.	Whether the project is properly implemented and useful results are obtained?	The project is implemented and all the results proposed in Simulation Phase-I are obtained.	The project is implemented and only few results proposed in Simulation/Phase-I are obtained.	The project is implemented but the results proposed in simulation/Phase-I are not obtained properly.	PO3, PO4, PO5, PO6, PO7
5.	Whether the project documentation and presentation are effective?	Information is in logical sequence with diagrams, table etc., complete and formatted. Results are analyzed properly and there is scope for further work.	Information is in logical sequence without diagrams, table etc., complete and formatted. Results are analyzed but there is no scope for further work.	Mostly unclear and not formatted. Results are not properly analyzed and there is no scope for further work.	PO10

Project Co-ordinator

HOD-EEE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Outer Ring Road, Bellandur, Bengaluru - 560103

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TOP

ENGINEERING COLLEGE OF INDIA - per NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2018

EEE75 Project - Phase II

Report on

Detection and Prevention of Electrical Power Theft and Wireless Alert System

Submitted in the partial fulfilment of the Final Year Project

Submitted by

Yashwanth B S	1NH17EE064
Vybhav A	1NH17EE063
Dushyanth Kumar U	1NH17EE013
Gnanesh Nayak K V	1NH18EE402

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21



CERTIFICATE

Certified that the Project Phase II work entitled "Detection and Prevention of Electrical Power Theft and Wireless Alert System " carried out by Yashwanth B S(1NH17EE064), Vybhav A(1NH17EE063), Dushyanth Kumar U(1NH17EE013), Gnanesh Nayak K V(1NH18EE402) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II k prescribed for said Degree.

WORK presented for the	tepealue	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Senior Assistant professor J.Joshua	Dr.Mahesh.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

quele **External Examiner**

I Yashwanth B S, Vybhav A, Dushyanth Kumar U, Gnanesh Nayak K U students of New Horizon College of Engineering hereby declare that, this project phase I work entitled "Detection and Prevention of Electrical Power Theft and Wireless Alert System" is an original and bonafide work carried out by us at New Horizon College of Engineering, Bangalore in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Yashwanth B S - 1NH17EE064 Joshurub

Vybhav A - 1NH17EE063

Dushyanth Kumar U - 1NH17EE013

Gnanesh Nayak K V - 1NH18EE402

DATE TOP ENGINEERING COLLEGE OF INDIAns our NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019 Ministry of Human Resource Development, Development of India Outer Ring Road, Bellandur, Bengaluru – 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

Arduino Based Novel and Intelligent Control Circuitry to Monitor Electrical

Parameters at Substation

Submitted in the partial fulfilment of the Final Year Project

Submitted by

Aditya D Aparanji	1NH17EE001
D Nikhil Kumar	1NH17EE010
Jayanth N	1NH17EE021
Lableb V	1NH17EE029

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21

Automatica de la construction de

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "Arduino based Novel and Intelligence control circuitry to monitor electrical parameters at Substation" carried out by Aditya D Aparanji (INH17EE001), D Nikhil Kumar (INH17EE010), Jayanth N (INH17EE021), Lohith V (INH17EE029) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

l	pepiatre	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Senior Assistant professor Mr. Inbasagaran S	Dr.Mahesh.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

al Examiner

External Examiner

We Aditya D Aparanji, D Nikhil Kumar, Jayanth N, Lohith V students of New Horizon College of Engineering hereby declare that, this project phase II work entitled "Arduino based Novel and Intelligence control circuitry to monitor electrical parameters at Substation" is an original and bonafide work carried out by us at New Horizon College of Engineering, Bangalore in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Aditya D Aparanji - 1NH17EE001

D Nikhil Kumar- 1NH17EE010 Mbbd

Jayanth N - 1NH17EE021 Faye

Lohith V - 1NH17EE029



Department of Electrical and Electronics Engineering

EEE84 Project Report

SOLAR REFRIGERATOR FOR PORTABLE REFRIGERATION

Submitted byK SHRIYA REDDYINH17EE025K SAI HEMANTH REDDYINH17EE027M SAI RAGHURAM AMOGHINH17EE030THAMIMULLAINH17EE058

Under the Guidance of Dr. Vinoth Kumar K Associate Professor

Dissertation submitted in partial fulfillment of the requirements For the award of the degree of

BACHELOR OF ENGINEERING

In ELECTRICAL AND ELECTRONICS ENGINEERING

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum - 590018, Karnataka, India



2020-2021



BONAFIDE CERTIFICATE

This is to certify that the project report entitled, "Solar Refrigerator for Portable Refrigeration" is a bonafide record of work of the following candidates who carried out the

project work under my supervision during 2020-2021

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SO R

K SHRIYA REDDY K SAI HEMANTH REDDY M SAI RAGHURAM AMOGH THAMIMULLA

1NH17EE025 1NH17EE027 1NH17EE030 1NH17EE058

Dissertation submitted in partial fulfillment of the requirements for the award of the degree of BACHELOR OF ENGINEERING

in ELECTRICAL AND ELECTRONICS ENGINEERING

of New Horizon College of Engineering, Bengaluru of Visvesvaraya Technological University, Belgaum during the Even semester, academic year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Signature of the project Guide

Signature of the Head of the Department

Signature of the Principal

Dr. VINOTH KUMAR K

Dr. M. Mahesh

Hom of the Department Department of Electrical and Electrical and Electrical and Electrical and Electrical and Electrical and Electrical New Horizon College of Engineering New Horizon College of Engineering Outer Ring Road, Bellandur Post, Department 560103, Kernataka Judia Dr. Manjunatha

Bangalore - 560103, Karnataka, India

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ellas an -els

We K SHRIYA REDDY (INH17EE025), K SAI HEMANTH REDDY (1NH17EE027), M SAI RAGHURAM AMOGH (1NH17EE030), THAMIMULLA (1NH17EE058) students of New Horizon College of Engineering hereby declare that, this project work entitled "Solar Refrigerator For Portable Refrigeration" is an original and bonafide work carried out at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of our knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

> K SHRIYA REDDY K SAI HEMANTH REDDY M SAI RAGHURAM AMOGH 1NH17EE030 THAMIMULLA

1NH17EE025 / INHITEE027 Cen 1NH17EE058



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

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Project - Phase II

Report on

SMART MEDICINE PILL BOX USING MICROCONTROLLER

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

K AYUSHA RAJ 1NH17EE023

DEEPA KM 1NH17EE011

MONISHA REDDY 1NH17EE034

Guided By

Ms. KARTHIKA.M

2020-21

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018





Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project work entitled "Smart medicine pill box using microcontroller" carried out by K AYUSHA RAJ(1NH17EE023), DEEPA KM (1NH17EE011), MONISHA REDDY(1NH17EE034) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Juttice	pipeabul	Majutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Ms. KARTHIKA.M	Dr. MAHESH M	Dr. MANJUNATHA
	CEMECTED END EVINENT	

SEMESTER END EXAMINATION

Internal Examine

rnal Examiner

1 K AYUSHA RAJ, MONISH REDDY, DEEPA KM student of New Horizon College of Engineering hereby declare that, this project work entitled "SMART MEDICINE PILL BOX USING MICROCONTROLLER" is an original and bonafide work carried out by me at New Horizon college of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

l also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

IA RAJ KAY

INH17EE023 DEEPA KMDegra INH17EE011 MONISHA maiista REDDY INH17EE034



NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

REAL TIME SAFETY MONITORING SYSTEM FOR COVID-19

Submitted in the partial fulfilment of the Final Year Project - Phase I

Submitted by

RICHARD CHRISTOPHER 1NH17EE046 KURETI VENKAT NISHIT 1NH17EE060 SYEDA SARAH BATOOL 1NH17EE055 SINDHUR 1NH17EE053

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018





DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "REAL TIME SAFETY MONITORING SYSTEM FOR COVID-19" carried out by Richard Christopher(1NH17EE046), Kureti Venkat Nishit(1NH17EE060), Syeda Sarah Batool(1NH17EE055), Sindhu R(1NH17EE053), bonafide students of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

at this	repeatur	Majutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Ms.Karthika. M	Dr.Mahesh.M	Dr.Manjunatha

SEMESTER END EXAMINATION

nalExaminer

We (Richard Christopher, Kureti Venkat Nishit, Syeda Sarah Batool, Sindhu R) students of New Horizon College of Engineering hereby declare that, this project phase I work entitled "REAL TIME SAFETY MONITORING SYSTEM FOR COVID-19" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

christopher(1NH17EE046)

Kureti Venkat Nishit (1NH17EE060)

Syeda Sarah Batool (1NH17EE055)

Sindhu R(1NH17EE053)



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Bengaluru - 560103, Karnataka, India

Department of Electrical and Electronics Engineering

EEE84 Project – Phase II Report on

SMART TRANSFORMER MAINTENANCE AND PROTECTION

Submitted by

MANASA G NITHYA H V NITHYA V 1NH17EE031 1NH17EE035 1NH17EE036

Under the Guidance of

Mr.Lithesh J

Assistant Professor

Dissertation submitted in partial fulfillment of the requirements For the award of the degree of

BACHELOR OF ENGINEERING

in

ELECTRICAL AND ELECTRONICS ENGINEERING

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum - 590018, Karnataka, India

2020-2021





Bengaluru - 560103, Karnataka, India

BONAFIDE CERTIFICATE

This is to certify that the project report entitled, "Smart Transformer Maintenance and Protection" is a bonafide record of work of the following candidates who carried out the project work under my supervision during 2020- 2021:

MANASA G	1NH17EE031
NITHYA H V	1NH17EE035
NITHYA V	1NH17EE036

Dissertation submitted in partial fulfillment of the requirements for the award of the degree of BACHELOR OF ENGINEERING in ELECTRICAL AND ELECTRONICS ENGINEERING

of New Horizon College of Engineering, Bengaluru of Visvesvaraya Technological University,

Belgaum during the odd semester, academic year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

1-15-1

Signature of the project Guide

Prof. Lithesh J

repealue

Semester End Examination held on July

Signature of the Head of the Department

Dr. M. Mahesh

Signature of the Principal

н

Dr. Manjunatha

2021

(Internal Examiner)

(External Examiner)

We Manasa G -1NH17EE031, Nithya H V- 1NH17EE035, Nithya V- 1NH17EE0361NH17EE713 students of New Horizon College of Engineering hereby declare that, this project phase-I work entitled "Smart Transformer Maintenance and Protection" is an original and bonafide work carried out at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of our knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

> MANASA G NITHYA H V NITHYA V

1NH17EE031 1NH17EE035 1NH17EE036



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

MILITARY SUPPORT AND SURVEILLANCE ROBOT

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

SHRI HARSHA S 1NH17EE052 BHANU PRAKASH NAIDU S 1NH18EE400 SADASHIV MANTUR N 1NH18EE404 YASHWANTH GOWDA S 1NH18EE408

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21

Dirf TOP ENGINEERING COLLEGE OF INDIA-

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "MILITARY SUPPORT AND SURVEILLANCE ROBOT" carried out by SHRI HARSHA 5 (INHI7EE052), BHANU PRAKASH NAIDU S (INHI8EE400), SADASHIV MANTUR N (INHI8EE404), YASHWANTH GOWDA S (INHI8EE408) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

Name & Signature of Head of the Signature of Pri cipal Name & Signature of the Department **Project Guide** lallu ł Dr. Manjunatha Dr. Mahesh.M Mr. Vinod Kumar S

SEMESTER END EXAMINATION

Internal Examiner

連載

External Examiner

We student of New Horizon College of Engineering hereby declare that, this Project work entitled "MILITARY SUPPORT AND SURVEILLIANCE ROBOT" is an original and Bonafide work carried out by us in partial fulfilment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of our knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Sintarhal Shri Harsha S(1NH17EE052)

Charled Bhanu Prakash Naidu S(1NH18EE400) Sadadelun Sadashiv Mantur(1NH18EE404)

Vaund Yashwanth Gowda S(1NH18EE408)



Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Major Project

Report on

Smart Parking Management System Using IOT

Submitted by

Anant Krishna (1NH17EE003)

Jaydeep Maity (1NH17EE022)

K Malsawmkima (1NH17EE024)

Pritam Samanta (1NH17EE042)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018





Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "SMART PARKING MANAGEMENT SYSTEM USING IOT" carried out by Anant Krishna(1NH17EE003),JaydeepMaity(1NH17EE022),K.Malsawmkima(1NH17EE02 4), PritamSamanta(1NH17EE042) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering. New Horizon College of Engineering of Visvesvaraya Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

Herabel	pipialul	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Dr. M Mahesh	Dr. M Mahesh	Dr.Manjunatha

SEMESTER END EXAMINATION

miner

We Anant Krishna (1NH17EE003), Jaydeep Maity (1NH17EE022), K Malsawmkima (1NH17EE024) and Pritam Samanta (1NH17EE042) students of New Horizon College of Engineering hereby declare that, this project we work entitled "SMART PARKING MANAGEMENT SYSTEM USING IOT" is an original and bonafide work carried out by us at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of our knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Anana Krishna (1NH17EE003)

Jaydeep Maity (1NH17EE022)

K Matsawarkima (INH17EE024)

Pritam Samanta (INH17EE042)



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 - Project

Report on

Speed control of DC motor using fuzzy logic controller

Submitted in the partial fulfillment for the award of degree of

Bachelor of Engineering

in

Electrical and Electronics Engineering

Submitted by

LETICIA DISHEL VAS 1NH17EE028

PREKSHA DESHMUKH 1NH17EE041

Internal Guide Mr. Lithesh J Assistant professor New Horizon College of Engineering

2020-21

VISVESVARAYA TECHNOLOGICAL UNIVERSITY "Jnana Sangama", Belgaum: 590018



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

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that Internship work entitled "Speed control of DC motor using fuzzy logic controller" carried out by Leticia Dishel Vas (1NH17EE028), Preksha Deshmukh (INH17EE041) a bonafide Student of New Horizon College of Engineering submitted the report in completion of project at Department of Electrical and Electronics Engineering, New Horizon College of Engineering during the Academic Year 2020-21.

It is certified that all the 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 said Degree.

1-11-1-5

Name & Signature of the Guide Name Signature of the HOD

Signature of the Principal

External Viva

Name of the examiners Signature with date

1) Suthis

I Leticia Dishel Vas, Preksha Deshmukh student of New Horizon College of Engineering hereby declare that, this project work entitled "Speed control of a DC motor using fuzzy logic controller" is an original and bonafide work carried out by us in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Leticia Dishel Vas

1NH17EE028

Deshmukh

1NH17EE041

AUTOMATIC ACTIVE POWER PHASE SELECTOR

BE (EEE)



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

AUTOMATIC ACTIVE POWER PHASE SELECTOR

Submitted in the partial fulfilment of the Final Year Project -Phase II

> Submitted by ANAGHA V – 1NH17EE002 SAMPRITHA G – 1NH17EE015 DHANUSH H M – 1NH18EE401 SHANKAR CHAVAN – 1NH18EE405

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21

AUTOMATIC ACTIVE POWER PHASE SELECTOR

BE (EEE)

CERTIFICATE

Certified that the phase II work entitled "AUTOMATIC ACTIVE POWER PHASE SELECTOR" carried out by ANAGHA V (1NH17EE002), SAMPRITHA G (1NH17EE015), DHANUSH H M (1NH18EE401), SHANKAR CHAVAN (1NH18EE405) bonafidestudents of New horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of" Engineering in Department of Electrical and Electronics Engineering, New' Horizon College of Engineering of VishweshwariahTechnological University. Belgaum during the Year 2020-21.

Itiscertifiedthatallthecorrections/suggestionsindicatedforInternalAssessmenthave been incorporated in the report deposited in the department library. The project report has beenapprovedasitsatisfiestheacademicrequirementsinrespectof project phase II work prescribed for saidDegree.

Name & Signature of the Project Guide	Name & Signature of Head of the Departmenty	Signature of Principal
Mr. Vinod Kumar S	The ahesh.M	Dr. Manjunatha

SEMESTER END EXAMINATION

xternal Examiner

We student of New Horizon College of Engineering hereby declare that, this Project work entitled "AUTOMATIC ACTIVE POWER PHASE SELECTOR" is an original and Bonafidework carried outby us in partial fulfilment of Bachelor of Engineering in Electrical and Electronics Engineering of Visves varay a Technological University, Belgaum.

We also declare that, to the best of our knowledge and belief, the work reported hereindoesnotformpartofanyotherthesisordissertationonthebasisofwhich a degree or award was conferred on an earlier occasion by anystudent.

ANAGHA V – 1NH17EE002 SAMPRITHA G – 1NH17EE015 DHANUSH H M – 1NH18EE401 SHANKAR CHAVAN – 1NH18EE405

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TOP ENGINEERING COLLEGE OF INDIA 45 1047

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase I

Report on

AUTOMATIC MOVABLE ROAD DIVIDER

Submitted in the partial fulfilment of the Final Year Project - Phase I

Submitted by

SANJAY N S	- 1NH17EE051
VINAY	- 1NH17EE061
SURESH BABU H	3 P - 1NH18EE406
YOGISHA B R	- 1NH18EE409

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21

NIT TOP ENGINEERING COLLEGE OF INDIA

NATIONAL INSTITUTIONAL RANKING FRAMEWORK 2019 Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase ' work entitled "AUTOMATIC MOVABLE ROAD DIVIDER" carried out by SANJAY N S(1NH17EE051), VINAY (1NH17EE061), SURESH BABU B P(1NH18EE406), YOGISHA B R (1NH18EE409), bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

it we	Malant 1/2021	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Dr.Mohan Das	Dr.Mahesh.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

Internal

12/01/2021

External Examiner

We SANJAY N S, VINAY, SURESH BABU B P, YOGISHA B R student of New Horizon College of Engineering hereby declare that, this project phase I work entitled "AUTOMATIC MOVABLE ROAD DIVIDER" is an original and bonafide work carried out by me at NEW HORIZON COLLEGE OF ENGINEERING in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

SANJAY N S -1NH17EE051

VINAY -1NH17EE061

SURESH BABU B P -1NH18EE406

YOGISHA B R -1NH18EE409



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PROJECT - PHASE II (EEE84)

REPORT

ON

AUTOMATIC METER READING BY USING POWER LINE COMMUNICATION

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

VISHAL GUPTA DEV RAWAL RACHANA V ANKITHA H 1NH17EE062 1NH17EE012 1NH17EE043 1NH17EE005

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2020-21

VISVESVARAYA TECHNOLOGICAL UNIVERSITY



"Jnana Sangama", Belgaum: 590018

WEW HORIZON 50

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

It is certified that the Project work entitled "AUTOMATIC METER READING BY USING POWER LINE COMMUNICATION" carried out by Vishal Gupta (INH17EE062), Dev Rawal (INH17EE012), Rachana V (INH17EE043), Ankitha H (INH17EE012) bonafide students of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment havebeen incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Project Guide

Mr. Vinod Kumar S

fipealent

Name & Signature of Head of the Department

Dr. Mahesh M

Majatha

Signature of Principal

Dr. Manjunatha

SEMESTER END EXAMINATION

Internal Examiner

External Examiner

Salaces english a cool
2020-21

DECLARATION

I VISHAL GUPTA, DEV RAWAL, RACHANA V, ANKITHA H students of New Horizon College of Engineering hereby declare that, this project phase II work entitled "AUTOMATIC METER READING BY USING POWER LINE COMMUNICATION" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfilment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

VISHAL GUPTA -1NH17EE062

DEV RAWAL -1NH17EE012

RACHANA V-1NH17EE043

dukit.

ANKITHA H-1NH17EE005

Outer Ring Road, Bellandur, Bengaluru - 566163

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

7 Level Real time Multi Level inverter

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

RASHMI RAMACHANDRA 1NH17EE045

VANISHREE PARAMASHETTI 1NH17EE059

KAREN JUSTUS

TABASSUM

1NH17EE056

1NH17EE026

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "7 LEVEL REAL TIME MULTI LEVEL INVERTER" carried out by RASHMI RAMACHANDRA (INH17EE045), VANISHREE PARAMASHETTI(INH17059), KAREN JUSTUS(INH17EE026), TABASSUM(INH17EE056) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

elfoz	repealed	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Prof. Ramakrishnan	Dr.Mahesh.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

nal Examiner

DECLARATION

I Vanishree Paramashetti student of New Horizon College of Engineering hereby declare that, this project phase II work entitled "7 level real time multi level inverter" is an original and bonafide work carried out by me at NEW HORIZON COLLEGE OF ENGINEERING in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Vanishree Paramashetti (1NH17EE059)



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

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Project - Phase II

Report on

DESIGN OF BATTERY MANAGEMENT SYSTEM FOR LOW VOLTAGE STAND ALONE SYSTEM

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

B V NITHISH KUMAR - INH17EE008

HEMANTHI - 1NH17EE018

HITISH G - 1NH17EE019

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project work entitled "DESIGN OF BATTERY MANAGEMENT SYSTEM FOR LOW VOLTAGE STAND ALONE SYSTEM" carried out by B V NITHISHKUMAR(INH17EE008),HEMANTHI(1NH17EE018),HITISHG(1NH17EE019) bonafideStudent(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

children	pepealul	Majutha	
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal	
Mrs.Ch.Kavitha	Dr.Mahesh.M	Dr.MANJUNATHA	

SEMESTER END EXAMINATION

ch. Karatto Internal Examiner

News

External Examiner

DECLARATION

We student of New Horizon College of Engineeringhereby declare that, this projectwork entitled"DESIGN OF BATTERY MANAGEMENT SYSTEM FOR LOW VOLTAGE STAND ALONE SYSTEM" is an original and bonafide work carried out by me in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

SH KUMAR - INH17EE008 1NH17EE018 IANTH I 1NH17EE019 HITHSH G



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

COBOTS TO ASSISST WITH HEALTHCARE WORKERS

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

SRIDARAN P POOJA V SRIRAM SP SARIKA M 1NH17EE037 1NH17EE039 1NH17EE048 1NH17EE049

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21



Accredited by NBA and NAAC with Grade "A" New Horizon Knowledge Park, Ring Road, Bellandur Post, Bengaluru 560 103

BONAFIDE CERTIFICATE

This is to certify that the project report entitled, "COBOTS TO ASSISST WITH HEALTHCARE WORKERS" is a bonafide record of work of the following candidates who carried out the project work under my supervision during 2020-2021:

SRIDARAN P	1NH17EE037
POOJA V	1NH17EE039
SRIRAM SP	1NH17EE048
SARIKA M	1NH17EE049

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

BACHELOR OF ENGINEERING

in ELECTRICAL AND ELECTRONICS ENGINEERING

of New Horizon College of Engineering, Bengaluru of Visvesvaraya Technological University, Belgaum during the Even semester, academic year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Signature of the project Guide

Dr. A Singaravelan

Signature of the Principal

Dr. Manjunatha

Signature of the Head of the Department Dr. M. Mahesh

DECLARATION

We Sridaran P-1NH17EE037, Pooja V- 1NH17EE039, Sriram SP-INH17EE048, Sarika M-1NH17EE049 students of New Horizon College of Engineering hereby declare that, this project work entitled "A COLLABORATIVE ROBOT TO SERVE PATIENTS AND TO COLLECT INFECTIOUS WASTAGE AT THE ISOLATION" is an original and bonafide work carried out at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of our knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

SRIDARAN P	1NH17EE037
POOJAV Reory	1NH17EE039
SRIRAM SP Sm	1NH17EE048
SARIKA M Sans	1NH17EE049

AUTION & THIN 19504, 1705000 9797324 1025-1025



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE85 Project - Phase II

Report on

AUTOMATION USING VISION SYSTEM

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

ANKUR YADAV INHITEE006

POOJA KUMAR KAGE INHITEERBE

SANGAM JAIN INHITEE050

SOHAN A JINGADE INHI7EE854

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21

Project Phase II

Page 1

AUTOMATION USING VISION SYSTEM 2026-2021

ASTERNATION LINEL VIEW STEPS

AND BENS. HORAZON 50

(buter Ring Road, Beftandur, Brugsturs - 16618)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "AUTOMATION USING VISION SYSTEM" carried out by ANKUR YADAV(INHI7EE006), POOJA KUMAR KAGE (INHI7EE038), SANGAM JAIN(INHI7EE050), SOHAN A JINGADE (INHI7EE054) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

ame & Signature of the Name & Signature of Head of the Department		Name & Signature of the Name & Signature of Head of the Signature Department Signature		Signature of Printipal
Mr. Vince Kumar S	Dr Mahesh.M	Dr. MANJUNATHA		

SEMESTER END EXAMINATION

Interna

sternal Examiner

B.E (EEE)

Project Phase II

Page 2

DECLARATION

I ANKUR YADAV(INHI7EE006), POOJA KUMAR KAGE(INHI7EE038) SANGAM JAIN (INHI7EE050) SOHAN A JINGADE (INHI7EE54) student of New Horizon College of Engineering hereby declare that, this project phase II work entitled "AUTOMTION USING VISION SYSTEM" is an original and bonafide work carried out by me at NEW HORIZON COLLEGE OF ENGINEERING in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

> ANKUR YADAV INHI7EE006 Julyodu POOJA KUMAR KAGE INHI7EE038 Pooda k SANGAM JAIN INHI7EE050 Dangum SOHAN A JINGADE INHI7EE054 John

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TOP ENGINEERING COLLEGE OF INDIA so por NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2018 Ministry of Human Resource Development, Development of budys

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase I

Report on

AUTOMATIC POWER FACTOR COMPENSATION FOR INDUSTRIAL POWER

Submitted in the partial fulfilment of the Final Year Project - Phase I

Submitted by

NITHIN C 1NH17EE414

HITLER SAHANI MANJHI 1NH16EE065

HARSHAVARDHAN S 1NH17EE021

VISHNU KUMAR KANTI 1NH15EE067

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21

BEPARTAIENT BE FLEETHIE AT AND FLEETHURIUS FRUIRFEHIRU

CERTIFICATE

Control that the Project Phase I work annual "ALTERNANTIC PERMIT FACTOR COMPLEXATION FOR INDUSTRIAL POWER" annual and by ATTENNE C (INH12FEA14) HITLER SAHARI MARTHI (INTERCORS) (IAUSTIKY/RETIANT & (INH12FEA14) VISUAU RUMAR KANTI (INTERCORS) (IAUSTIKY/RETIANT & (INH12FEA21) VISUAU RUMAR KANTI (INTERCORS) bonafide studients of view thorizon College of Engineering submitted report in the partial fulfiltment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaralah Technological University, Belgram during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for internal Kesteement have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase if work prescribed for said Degree.

al.	repealue	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Frincipal
Dr. A. Eiganan lan	Dr. Mahesh M	DR.MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

TEAL LEAminer

DECLARATION

1 Hitler Sahani Majhi student of New Horizon College of Engineering hereby declare that, this project phase I work entitled "AUTOMATIC POWER FACTOR COMPENSATION FOR INDUSTRIAL POWER" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

> Student Name & USN Hitler Sahani Majhi (1NH16EE065)



TOP ENGINEERING COLLEGE OF INDIA ... per NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019

Outer Ring Road, Bellandur, Bengaluru – 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

DESIGN OF AUTOMATIC HOME ENERGY MANAGEMENT SYSTEM USING RENEWABLE ENERGY FOR EFFECTIVE ENERGY CONSERVATION

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

1NH18EE421 Vikeshkumar Ravi S.H Altamash Pasha 1NH16EE062 Shreyas Y.N 1NH17EE749

1NH18EE419

2020-21

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018





TOP ENGINEERING COLLEGE OF INDIA as per NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019 Ministry of Human Resource Bevelopment, Geveryment of India Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "DESIGN OF AUTOMATIC HOME ENERGY MANAGEMENT SYSTEM USING RENEWABLE ENERGY FOR EFFECTIVE ENERGY CONSERVATION" carried out by VIKESHKUMAR(1NH18EE421), ALTAMASH PASHA(1NH16EE062), SHREYAS YN(1NH17EE749), RAVI SH(1NH18EE419) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

Inte	pepedent	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	J Signature of Principal
Prof. ANITHA A	Dr. MAHESH.M	Dr. MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

External Examiner

DECLARATION

VIKESHKUMAR, ALTAMASH PASHA, SHREYAS YN, RAVI S H

Student of New Horizon College of Engineering hereby declare that, this project phase II work entitled "DESIGN OF AUTOMATIC HOME ENERGY MANAGEMENT SYSTEM USING RENEWABLE ENERGY FOR EFFECTIVE ENERGY CONSERVATION" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reportedhereindoesnotformpartofanyotherthesisordissertationonthebasis of which a degree or award was conferred on an earlier occasion by any student.

> VIKESHKUMAR 1NH18EE421 VIA RAVI SH 1NH18EE419 Deve SHREYAS YN 1NH17EE749 Swc ALTAMASH PASHA 1NH16EE062 Deve



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project

Report on

INSTANT DISINFECTION AND SANITIZATION ROBOT

Submitted upon the fulfillment of the Final Year Project

Submitted by

ANSHUMAN BISWAL 1NH17EE704

AMARTYA THAKUR 1NH17EE703

UTKARSH BHARDWAJ 1N1H7EE065

HIMAGANI MISHRA 1NH17EE715

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



NHCE-EEE

THE COLLEGE OF ENGINEERING



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Final Year Project work entitled "INSTANT DISINFECTION AND SANITIZATION ROBOT" carried out by ANSHUMAN BISWAL (1NH17EE704), AMARTYA THAKUR(1NH17EE703), UTKARSH BHARDWAJ(1NH17EE065), HIMAGANI MISHRA(1NH17EE715) bonafide Student(s) of New Horizon College of Engineering submitted report upon fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraya Technological University, Belgaum during the Year 2021.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

22/7/2021 5212/21 Name & Signature of Head of the Name & Signature of the Signature of Principal **Project Guide** Department Muni Prakash T Dr. Mahesh M Dr. MANJUNATHA Head of the Department Department of Electrical and Electronics Engineering New Horizon College of Engineering Ring Road, Kadubisanahalli, Bellandur Post. Bangalore - 550103, Kainataka, India SEMESTER END EXAMINATION Shiratingo Internal Examiner External Examiner NHCE-EEE NHCE-EEE





LIBRARY & INFORMATION CENTRE CERTIFICATE ON PLAGIARISM CHECK

1	Name of the Student	ANSHUMAN BISWAL AMARTYA THAKUR UTKARSH BHARDWAJ HIMAGANI MISHRA
2	USN	1NH17EE704 1NH17EE703 1N1H7EE065 1NH17EE715
3	Course	UG
4	Department	EEE
5	Minl Projects/Project Reports/ Ph.D Synopsis/ Ph.D Thesis/ Paper Publication (N/I)	Final Year Project Report
6	Title of the Document	INSTANT DISINFECTION AND SANITIZATION ROBOT
7	Similar Content(%)identified	17%
8	Acceptable maximum limit (%)	25%
9	Date of Verification	13.07.2021
10	Checked by (Name with signature)	Dr. N.Prabhakaran
11	Specific remarks, if any :	No

We have verified the contents as summarized above and certified that the statement made above are true to the best of our knowledge and belief.

1n N

Dr. N.Frabhakaran Plagiarism - Coordinator

22/1/2021 lalu

Dr. M. Mahesh HOD - EEE

Head of the Department, ... Department of Electrical and Electronics Enterprised of Electrical and Electrical a

NHCE-EEE

AUTOMATIC FACE MASK DETECTION





DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Project - Phase II

Report on

AUTOMATIC FACE MASK DETECTION

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

RANDHIR KUMAR YADAV

MOHAMMED ARBAS

ROHAN ASHISH

1NH17EE741 1NH17EE066 1NH16EE743

2020-2021

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



B.E. (EEE)



OF INDIA ... GINEERING CO nif ATIONAL INSTITUTIONAL RANKING PRAMEWORK. 2018

Outer Ring Road, Bellandur, Bengaluru - 560103 DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project work entitled "AUTOMATIC FACE MASK DETECTION " carried out by: RANDHIR KUMAR YADAV (INH16EE741), MOHAMMED ARBAS (1NH17EE066), ROHAN ASHISH (1NH16EE743), bonafide student(s) of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-2021.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Read	Mean	Maijutha
Name & Signature	Name & Signature of Head	Signature of

of the Project Guide

of the Department

Principal

Dr. Deepa B

Dr. MAHESH M

Dr.MANJUNATHA

SEMESTER END EXAMINATION

nternal Examiner

External Examiner

B.E. (EEE)

ATIC FACE MASK DETECTION

2020-2021



DECLARATION

ASHISH students of New Horizon College of Engineering hereby declare that, We RANDIR KUMAR YADAV, MOHAMMED ARBAS, ROHAN this project work

entitled "AUTOMATIC FACE MASK DETECTION" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of my knowledge and belief, the work reported

here in does not form part of any other thesis or dissertation on the basis of which

a degree or award was conferred on an earlier occasion by any student.

RANDIR KUMAR VADAV 1NH17EE741 Que MOHAMMED ARBAS 1NH17EE766 Mdu ROHAN ASHISH 1NH17EE743 Que

B.E. (EEE)



TOP ENGINEERING COLLEGE OF INDIA as per NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019 Ministry of Human Resource Development, Government of India

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Project - Phase II

Report on

INITIALISE OF COCKPIT VOICE RECODER

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

SUPROVO BANERJEE	1NH16EE749	
SUMIT BHAWAL	1NH17EE753	
DILKASH IMAM	1NH16EE715	

2020-2021

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



nitialise of cockpit voice recorder





TOP ENGINEERING COLLEGE OF INDIA 48 Day ATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2018 Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project work entitled "INITIALISE OF COCKPIT VOICE RECODER" carried out by: SUPROVO BANERJEE (1NH16EE749), SUMIT BHAWAL (1NH17EE753), DILKASH IMAM (1NH16EE715), bonafide student(s) of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-2021.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Ph~~	replacent.	Mayinthe
Name & Signature	Name & Signature of Head of the Department	Signature of Principal
Dr. N Prabhakaran	Dr. MAHESH M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

External Examiner

of cockpit voice recorder

2020-2021



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

DECLARATION

We SUPROVO BANERJEE ,SUMIT BHAWAL DILKASH IMAM, student of New Horizon College of Engineering here by declare that, this project work entitled"INITIALISE OF COCKPIT VOICE RECODER" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineeringof Visvesvaraya Technological University, Belgaum.

We also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

1.) SUPROVO BANERJEE - 1NH16EE749

2.) SUMIT BHAWAL - 1NH17EE753

3.) DILKASH IMAM

- 1NH16EE715

B.E. (EEE)

Page | 3

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Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase I

Report on IOT BASED POWER MONITORING SYSTEM FOR SMART GRID APPLICATION

Submitted in the partial fulfillment of the Final Year Project - Phase II

Submitted by	
NEERAJ.R	1NH17EE729
ABDUL SHUKOOR	1NH17EE700
MADHU.M	1NH17EE720
SUHAS K SIDDAMAL	1NH17EE752

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING.

CERTIFICATE

Certified that the Project Phase I work entitled "IOT BASED POWER MONITORING SYSTEM FOR SMART GRID APPLICATION" carried out by NEERAJ. R (1NH17EE729), MADHU. M (1NH17EE720), ABDUL SHUKOOR(1NH17EE700), SUHAS K. SIDDAMAL(1NH17EE752) , bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and

Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

Jalgma	repealure	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Mr.SUNIL.K	Dr.Mahesh.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

Examiner

DECLARATION

 NEERAJ.R, MADHU.M, ABDUL SHUKOOR, SUHAS .K SIDDAMAL student of New Horizon College of Engineering hereby declare that, this project phase I work entitled "IOT BASED POWER MONITORING SYSTEM FOR SMART GRID APPLICATION" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

> NEERAJ .R ABDUL SHUKOOR MADHU .M SUHAS K SIDDAMAL

1NH17EE729 1NH17EE700 1NH17EE720 1NH17EE752





TOP ENGINEERING COLLEGE OF INDIA as per NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019 Disastry of Human Resource Development, Boyermann of Units Outer Ring Road, Bellandur, Bengaluru – 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS

ENGINEERING

EEE75 Project - Phase II

Report on

2-WIRE AC DISTRIBUTION FOR PROTECTION -USING ISOLATION TRANSFORMER

Submitted in the partial fulfillment for the award of degree of Bachelor of Engineering in Electrical and Electronics Engineering.

Submitted by

THOMAS ALLWIN ANTO - 1NH17EE754

ABHILASH MITHARE – 1NH17EE701

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018







C YEARS OF DESILINE N IDUC

LIBRARY & INFORMATION CENTRE CERTIFICATE ON PLAGIARISM CHECK

1	Name of the Student	ABHILASH MITHARE THOMAS ALLWIN ANTO
2	USN	1NH17EE701 1NH17EE754
3	Course	UG
4	Department	EEE
5	Mini Projects/Project Reports/ Ph.D Synopsis/ Ph.D Thesis/ Paper Publication (N/I)	Final Year Project Report
6	Title of the Document	2-WIRE AC DISTRIBUTION SYSTEM FOR PROTECTION USING ISOLATION TRANSFORMER
7	Similar Content(%)identified	13%
8	Acceptable maximum limit (%) of similarity	25%
9	Date of Verification	23.07.2021
10	Checked by (Name with signature)	Dr. N.Prabhakaran
11	Specific remarks, if any :	No

We have verified the contents as summarized above and certified that the statement made above are true to the best of our knowledge and belief.

23/1/21

Dr. N.Prabhakaran Plagiarism - Coordinator

Dr. M. Mahesh HOD - EEE

Hebd of the Department Department of Electrical and Electronics Explore New Horizon College of Englow Ring Road, Kadubisanahalit, Bra Bangatore - 559103, Karola



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase I work entitled "2-WIRE AC DISTRIBUTION FOR PROTECTION -USING ISOLATION TRANSFORMER" carried out by THOMAS ALLWIN ANTO (1NH17EE754) ABHILASH MITHARE(1NH17EE701) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

Name & Signature of Head of the ame & Signature of the Signature of Principal Department **Project Guide** Dr.Manjunatha Dr.Mahesh.M Dr. Guna Priya B

SEMESTER END EXAMINATION

Internal Examiner

Examiner



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PROJECT - PHASE II (EEE84)

REPORT

ON

SMART MEDICAL ASSISTANT USING IOT

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

ABY K MATHEW	1NH17EE702	
KISHORE KUMAR S	1NH17EE719	
SRI KUBER SINGH C	1NH17EE750	

2020-21

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018





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

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

It is certified that the Project work entitled "Smart Medical Assistant using IoT" carried out by Aby K Mathew (1NH17EE702), Kishore Kumar S (1NH17EE719), Sri Kuber Singh C (1NH17EE750) bonafide students of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Name & Signature of

Name & Signature of Head

Signature of Principal

Dr. Manjunatha

Dr. R Mohandas

Project Guide

Dr. Mahesh M

of the Department

SEMESTER END EXAMINATION Iternal Examiner

External Examiner
I. ABY K MATHEW, KISHORE KUMAR S, SRI KUBER SINGH C, students of New Horizon College of Engineering hereby declare that, this project phase I work entitled "SMART MEDICAL ASSISTANT USING IOT" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfilment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

ABY K MATHEW - 1NH17EE702

KISHORE KUMAR S – 1NH17EE719

(Hender Cer

SRI KUBER SINGH C - 1NH17EE750



Department of Electrical and Electronics Engineering

EEE75 Project- Phase 2

Report on

AI BASED SMART MIRROR USING RASPBERRY PI

Submitted by

BHARATH SURYA KAVITA SAH **RAKSHAS** SHAUN PHILIPOSE JOHN

1NH17EE706 1NH17EE718 1NH17EE745 1NH17EE748

Under the Guidance of Dr. Gunapriya Parthasarathy Associate Professor

Dissertation submitted in partial fulfillment of the requirements For the award of the degree of

BACHELOR OF ENGINEERING in ELECTRICAL AND ELECTRONICS ENGINEERING

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum - 590018, Karnataka, India



2020-2021





LIBRARY & INFORMATION CENTRE

CERTIFICATE ON PLAGIARISM CHECK

1	Name of the Student	Kavita Sah
2	USN	1NH17EE718
3	Course	UG
4	Department	EEE
5	Mini Projects/Project Reports/ Ph.D Synopsis/ Ph.D Thesis/ Paper Publication (N/I)	Final Year Project
6	Title of the Document	AI Based Smart mirror using raspberry pi
7	Similar Content(%)identified	23%
8	Acceptable maximum limit (%) of similarity	25%
9	Date of Verification	25.07.2021
10	Checked by (Name with signature)	Dr. N.Prabhakaran
11	Specific remarks, if any :	No

We have verified the contents as summarized above and certified that the statement made above are true to the best of our knowledge and belief.

Dr. N.Prabhakaran

Dr. N.Prabhakaran Plagiarism Coordinator

Dr. M. Mahesh HOD - EEE



pand

BONAFIDE CERTIFICATE

RASPBERRY PI" is a bonafide record of work of the following candidates who carried out This is to certify that the project report entitled, "AI BASED SMART MIRROR USING

the project work under my supervision during 2020-2021:

BHARATT KAVITA S RAKSHA SHAUN P	
I SURYA IAH S HILIPOSE JOHN	
INHI7EE718 INHI7EE745 INHI7EE745	1 THITE 706

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

BACHELOR OF ENGINEERING

in ELECTRICAL AND ELECTRONICS ENGINEERING

of New Horizon College of Engineering, Bengaluru of Visvesvaraya Technological University.

Belgaum during the Even semester, academic year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have it satisfies the academic requirements in respect of project work prescribed for said Degree. incorporated in the report deposited in the department library. The project report has been approved as been

Hall

ture of the project Guide

Dr. Gunapriya Parthasarathy

Dr. M. Mahesh Department

Signature of the Head of the

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

-

Signature of the Principal

Dr. Manjunatha



Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Project - Phase II

.

Report on

IOT BASED POWER LINE MONITORING AND CONTROL SYSTEM FOR AC LOADS

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

C. ARUN SAI INH17EE709

CH. GOWTHAM CHANDU 1NH17EE710

N. PRUTHVEESH 1NH17EE726

O. GOPI KRISHNA 1NH17EE731

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21

TOP ENGINEERING COLLEGE OF INDIA 48 Der NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "IOT BASED POWER LINE MONITORING AND CONTROL SYSTEM FOR AC LOAD" carried out by C ARUN SAI(INH17EE709), CH GOUTHAM CHANDU(INH17EE710), N PRUTHVEESH(INH17EE726), O GOPI KRISHNA(INH17EE731), bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering. New Horizon College of Engineering of Visvesvaraya Technological University. Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

Name & Signature of the Project Guide	Name & Signature of Head of the Department Signature of Pr	
MR. T MUNI PRAKASH	Dr. MAHESH, M	Dr. MANJUNATHA
1- rund		Mayntha

SEMESTER END EXAMINATION

Internal Examiner

nal Examiner

i HAY

1 C. ARUN SAI(1NH17EE709), CH GOUTHAM CHANDU(1NH17EE710), N.PRUTHVEESH(1NH17EE726), O GOPI KRISHNA(1NH17EE731) student of New Horizon College of Engineering hereby declare that, this project phase II work entitled "IOT BASED POWER LINE MONITORING AND CONTROL SYSTEM FOR AV LOAD" is an original and bonafide work carried out by me at NEW HORIZON COLLEGE OF ENGINEERING in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

C ARUN SAI 1NH17EE709

CH GOWTHAM CHANDU 1NH17EE710

N PRUTHVEESH 1NH17EE72

O GOPI KRISHNA 1NH17EE731

Gune Pruk Gorul



Bengaluru – 560103, Karnataka, India

Department of Electrical and Electronics Engineering

EEE84 Project – Phase II

Report on

IMPLEMENTATION OF SMART E-VEHICLE CHARGING STATION POWERED BY RENEWABLE ENERGY

Submitted by

VINITH G A PRAGATHI PRAKASH MEGHANA I L DIVYA S V 1NH17EE713

> Under the Guidance of Dr. Vinoth Kumar K Associate Professor

Dissertation submitted in partial fulfillment of the requirements For the award of the degree of

BACHELOR OF ENGINEERING in ELECTRICAL AND ELECTRONICS ENGINEERING

VISVESVARAYA TECHNOLOGICAL UNIVERSITY "JnanaSangama", Belgaum – 590018, Karnataka, India



2020-2021



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

Bengaluru – 560103, Karnataka, India

BONAFIDE CERTIFICATE

This is to certify that the project report entitled, "Implementation of Smart E-vehicle charging Station powered by Renewable energy" is a bonafide record of work of the following candidates who carried out the project work under my supervision during 2020-2021:

VINITH G A	1NH17EE756
PRAGATHI PRAKASH	1NH17EE733
MEGHANA I L	1NH17EE724
DIVYA S V	1NH17EE713

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

BACHELOR OF ENGINEERING

in ELECTRICAL AND ELECTRONICS ENGINEERING

of New Horizon College of Engineering, Bengaluru of Visvesvaraya Technological University,

Belgaum during the even semester, academic year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

Signature of the project Guide

Dr. VINOTH KUMAR K

Dr. M. Mahesh

Signature of the Head of the Signature of the Principal Department

Dr. Manjunatha

internal Examiner)

Semester End Examination held on 03/08/2002

(External Examiner)

ACKNOWLEDGEMENT

With immense pleasure and deep sense of gratitude, we wish to express sincere thanks to our supervisor **Dr. VINOTH KUMAR K**, Associate Professor, Department of Electrical and Electronics Engineering, New Horizon College of Engineering, without his motivation and continuous encouragement, this project would not have been successfully completed.

We grateful to the Chairman of New Horizon Educational Institution, **Dr. Mohan Manghnani** for motivating us to carry out research in the NHCE and for providing with infrastructural facilities and many other resources needed for our project work.

We express my sincere thanks to **Dr. M. Mahesh**, HoD, Department of Electrical and Electronics Engineering, New Horizon College of Engineering for his kind words of support and encouragement.

We wish to extend my profound sense of gratitude to my parents for all the sacrifices they made during our project and providing us with moral support and encouragement whenever required.

Date: 22.01.2021 Place: Bengaluru

> VINITH G A PRAGATHI PRAKASH MEGHANA I L DIVYA S V

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NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

"Automated Agribot for Agriculture Automation"

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

NAME:Suhas G	USN:1NH17EE751
NAME:Jyothi Patil	USN:1NH17EE716
NAME:Jagadeesh	USN:1NH18EE415
NAME:Chethan H E	USN:1NH18EE413

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "Automated Agribot for Agriculture Automation" carried out by Suhas G(1NH17EE751), Jyothi Patil(1NH17EE716), Jagadeesh(1NH18EE415), Chethan H E(1NH18EE413) bonafide Students of New HorizonCollege of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal	
Mr.S Inbasakaran	Dr. Mahesh.M	Dr.MANJUNATHA	
10	11100	Maynthe	
	· · ·	J	

SEMESTER END EXAMINATION

Internal Examiner

External Examiner

1 Suhas G(1NH17EE751), Jyothi Patil(1NH17EE716), Jagadeesh(1NH18EE415), Chethan H E(1NH18EE413) students of New Horizon College of Engineering hereby declare that, this project phase II work entitled "Automated Agribot for Agriculture Automation" is an original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

> NAME:Suhas G USN:1NH17EE751 Jule NAME:Jyothi Patil USN:1NH17EE716 Juge NAME:Jagadeesh USN:1NH18EE415 Jage NAME:Chethan H E USN:1NH18EE413 Aur



NATIONAL INSTITUTIONAL RANKING FRAMEWORK,2019 Ministry of Human Resource Development, Government of India

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Project - Phase II

Report on

INTELLIGENT AGRICULTURE FIELD MONITORING SYSTEM BASED ON IOT TECHNOLOGY

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

VENKATESH M 1NH18EE420

MAHAN H S 1NH17EE721

ABDUL RAZAK 1NH18EE411

2020-21

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018







Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project work entitled "INTELLIGENT AGRICULTURE FIELD MONITORING SYSTEM BASED ON IOT TECHNOLOGY" carried out by VENKATESH M (INH18EE420), MAHAN H S (INH17EE721), ABDUL RAZAK (INH18EE411), bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for said Degree.

Shueeee	Mplater	Majuth
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Dr.SUJITHA.S	Dr,MAHESH.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

External Examiner

Internal Examiner

SYSTEM BASED ON IOT TECHONOLOGY" is an original and bonafide Horizon College of Engineering hereby declare that, this project phase I work entitled "INTELLEGENT AGRICULTURE FIELD MONITORING I VENKATESH M, MAHAN H S, ABDUL RAZAK student of New

work carried out by me at New Horizon College of Engineering in partial of Visvesvaraya Technological University, Belgaum. fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering

reported here in does not form part of any other thesis or dissertation on the student. basisof which a degree or award was conferred on an earlier occasion by any I also declare that, to the best of my knowledge and belief, the work

VENKATESH M INH18EE420

June

MAHAN H S INHI7EE721

mour

ABDUL RAZAK INHI8EE411

ARA



Outer Ring Road, Bellandur, Bengaluru – 560103 DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

SMART IRRIGATION SYSTEM

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

MANOJKUMAR S BIRADAR 1NH17EE723

PRIYANSHU RANJAN 1NH17EE735

SAHIL RAVI KUMAR 1NH17EE746

SANKET KUMAR SINGH 1NH17EE747

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21



NATIONAL INSTITUTIONAL RANKING FRAMEWORK,2019

Outer Ring Road, Bellandur, Bengaluru - 560103 DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase I work entitled "SMART IRRIGATION SYSTEM" carried out by Manojkumar S Biradar(1NH17EE723), Priyanshu Ranjan (1NH17EE735), Sahil Ravi Kumar (1NH17EE746), Sanket Kumar Singh(1NH17EE747) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfilment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

a.07 Jul	repealent	Majitha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Mr.B S Mohan	Dr.Mahesh.M M M alul	Dr.MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

External Examiner

I Sahil Ravi Kumar student of New Horizon College of Engineering hereby declare that, this project phase I work entitled "SMART IRRIGATION SYSTEM" is an original and bonafide work carried out by me at College name /Industry name in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Salah

Sahil Ravi Kumar (1NH17EE746)



TOP ENGINEERING COLLEGE OF INDIAns per NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2013 Ministry of Human Resource Development, Government of India

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE84 Project - Phase II

Report on

A NOVEL FAULT TOLERANT SOLUTION FOR UNDERGROUND TRANSMISSION SYSTEM MONITORED BY GSM

Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by Vandita Manohar 1NH17EE755 Muhammad Maaz 1NH17EE725

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018



2020-21



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase I work entitled "A NOVEL FAULT TOLERANT SOLUTION FOR UNDERGROUND TRANSMISSION SYSTEM MONITORED BY GSM " carried out by Vandita Manohar (1NH17EE755)Muhammad Maaz (1NH17EE725) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase II work prescribed for said Degree.

Aue	Mealur	Majutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Ms. Roopa C	Dr.Mahesh.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

External Examiner



)





LIBRARY & INFORMATION CENTRE CERTIFICATE ON PLAGIARISM CHECK

1	Name of the Student	Vandita Manohar
		Muhammad Maaz
2	USN	1NH17EE755 1NH17EE725
3	Course	UG
4	Department	EEE
5	Mini Projects/Project Reports/ Ph.D Synopsis/ Ph.D Thesis/ Paper Publication (N/I)	Final Year Project Report
6	Title of the Document	A NOVEL FAULT TOLERANT SOLUTION FOR UNDERGROUND TRANSMISSION SYSTEM MONITORED BY GSM
7	Similar Content(%)identified	5%
8	Acceptable maximum limit (%) of similarity	25%
9	Date of Verification	25.07.2021
10	Checked by (Name with signature)	Dr. N.Prabhakaran
11	Specific remarks, if any :	No

We have verified the contents as summarized above and certified that the statement made above are true to the best of our knowledge and belief.

Dr. N.Prabhakaran Plagiarism - Coordinator Dr. M. Mahesh HOD - EEE



AUTOMATION SYSTEM IN AGRICULTURAL FIELD FOR EFFECTIVE POWER CONSUMPTION

A PROJECT

REPORT

Submitted by

RISHABH YADAV – 1NH17EE742

PRACHI ANIL PANDIT – 1NH17EE732

NEERAJ - 1NH17EE728

RAMYA MANUR - 1NH17EE740

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRICAL AND ELECTRONICS ENGINEERING

Project Guide Mr. MOHAN BS

VISVESVARAYA TECHNOLOGICAL UNIVERSITY "Jnana Sangama", Belgaum: 590018



WEW HORIZON 500 COLLEGE OF ENGINEERING

Bonafide Certificate

This is to Bonafide that the mini project report entitled "AUTOMATION SYSTEM IN AGRICULTURAL FIELD FOR EFFECTIVE POWER CONSUMPTION" submitted by Rishabh Yadav, Prachi Anil Pandit, Neeraj Patil, Ramya Manur, Department of ElectricalEngineering, New Horizon College of Engineering, Engineering, is a record of bonafide work carried out by him/her under my supervision, as per the NHCEcode of academic and research ethics.

The contents of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university. The project report fulfils the requirements and regulations of the institution and in my opinion meets the necessary standards for submission.

Mr. Mohan B.S. Guide

Dr. Mahesh M HoD

thighter friend

EW HORIZON

Acknowledgement

With immense pleasure and deep sense of gratitude, I wish to expressmy sincere thanks to our supervisor Mr. Mohan B.S., Professor, Departmentof Electrical Engineering, New Horizon College of Engineering. Without his motivation and continuous encouragement, this mini project would not have been successfully completed.

I am grateful to the Chairman of New Horizon Educational Institution, Dr. Mohan Manghnani for motivating me to carry out research in the NHCE and for providing me with infrastructural facilities and many other resources needed for my project work.

I express my sincere thanks to Dr. Mahesh.M HoD, Department of Electrical Engineering, New Horizon College of Engineering for his kind words of support and encouragement.

I wish to extend my profound sense of gratitude to my parents for all the sacrifices they made during my project and providing me with moral support and encouragement whenever required.

Date: 23 Jan 2021

Place: Bangalore

YOUR NAME(s)

RISHABH YADAV PRACHI ANIL PANDIT 1NH17EE732 NEERAJ RAMYA MANUR

1NH17EE742 1NH17EE728 1NH17EE740





TOP ENGINEERING COLLEGE OF INDIA as per NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019 Ministry of Human Resource Development. Government of India

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase I

Report on

AGRICULTURAL 3 PHASE MOTOR CONTROL SYSTEM

Submitted in the partial fulfilment of the Final Year Project - Phase I

Submitted by

RAHUL RAJKUMAR (1NH18EE418) VINOD CHOUDHARY S (1NH17EE757)

WESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018







DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase I work entitled "Agricultural 3 Phase Motor Control System" carried out by Rahul Rajkumar (1NH18EE418), Vinod Choudhary S (INH17EE757), bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for saidDegree.

Nut	-1 plal 25/01/2021	Maijutha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Mr. Vinod Kumar S	Dr:Mahesh.M	Dr.MANJUNATHA

SEMESTER END EXAMINATION

External Examiner

malExamine

IRahul Rajkumar (1NH18EE418), Vinod Choudhary S (1NH17EE757)student of New Horizon College of Engineering hereby declare that, this project phase I work entitled "AGRICULTURAL 3 PHASE MOTOR CONTROL SYSTEM" is an original and bonafide work carried out by me at NEW HORIZON COLLEGE OF ENGINEERING in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University,Belgaum.

I also declare that, to the best of my knowledge and belief, the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion by any student.

Rahul Rajkumar (1NH18EE418), Vinod Choudhary S (1NH17EE757)



NATIONAL INSTITUTIONAL RANKING FRAMEWORK, 2019

Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EEE75 Project - Phase II

Report on

IMPLEMENTATION OF G to V & V to G FOR EV's Submitted in the partial fulfilment of the Final Year Project - Phase II

Submitted by

DARSHAN GOWDA 1NH17EE711

BEEMANAGOUDA 1NH18EE412 HEMANTH KG 1NH18EE414

JAYA KUMAR 1NH18EE416

2020-21

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum: 590018





MATIONAL INSTITUTIONAL RANKING FRAMEWORK,2019 Ministry of Human Resource Development, Government of India Outer Ring Road, Bellandur, Bengaluru - 560103

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the Project Phase II work entitled "IMPLEMENTATION OF GRID TO VEHICLE AND VEHICLE TO GRID FOR EV's" carried out by DARSHAN GOWDA(1NH17EE711), BEEMANNA GOUDA(1NH18EE412),HEMANTHKG (1NH18EE414), JAYAKUMAR(1NH18EE416) bonafide Student(s) of New Horizon College of Engineering submitted report in the partial fulfillment for the award of Bachelor of Engineering in Department of Electrical and Electronics Engineering, New Horizon College of Engineering of Visveswaraiah Technological University, Belgaum during the Year 2020-21.

It is certified that all the corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

Reul	M Meiline	Marjatha
Name & Signature of the Project Guide	Name & Signature of Head of the Department	Signature of Principal
Prof. Rashmi	Dr. MAHESH.M	Dr. MANJUNATHA

SEMESTER END EXAMINATION

Internal Examiner

External Examiner

DARSHAN, BHEEMANNA GOUDA, HEMANTH , JAYA KUMAR

Student of New Horizon College of Engineering hereby declare that, this project phase II work entitled "IMPLEMENTATION OF G TO V AND V TO G BY USING BI-DIRECTIONAL CONVERTER FOR EV's" is an

original and bonafide work carried out by me at New Horizon College of Engineering in partial fulfillment of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum.

I also declare that, to the best of my knowledge and belief, the work reportedhereindoesnotformpartofanyotherthesisordissertationonthebasis of which a degree or award was conferred on an earlier occasion by any student.

DARSHAN 1N	H17EE711 Darden
BHEEMA 1	NH18EE412 Bheen
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Accredited by NBA and NAAC with Grade "A" New Horizon Knowledge Park, Ring Road, Bellandur Post, Bengaluru 560 103

Department of Electrical and Electronics Engineering

EEE84 Project – Phase 2

Report on

Energy absorption and resilience using solar tracker

Submitted by

BALAJI R NIVEDITA S PUNEETH S NAYANA K 1NH17EE737 1NH17EE730 1NH17EE736 1NH17EE727

Under the Guidance of

Mr.Mohan B.S

Associate Professor

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

BACHELOR OF ENGINEERING

in

ELECTRICAL AND ELECTRONICS ENGINEERING

VISVESVARAYA TECHNOLOGICAL UNIVERSITY -JnanaSangamal, Belgaum – 590018, Karnataka, India



2020-2021



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BONAFIDE CERTIFICATE

This is to certify that the project report entitled, **-Implementation of Energy absorption and resilience using solar tracker** is a bonafide record of work of the following candidates who carried out the project work under my supervision during 2020-2021:

BALAJI R	1NH17EE737
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in ELECTRICAL AND ELECTRONICS ENGINEERING

of New Horizon College of Engineering, Bengaluru of Visvesvaraya Technological University.

Belgaum during the Even semester, academic year 2020-21.

It is certified that all the corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project phase I work prescribed for said Degree.

Mathe . B.S

Signature of the project Guide

Mr.Mohan B.S

fl Maler Signature of the Head of the

Signature of the Principal

Dr. Manjunatha

Semester End Examination held on 03/08/2021

(External Examiner)

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(Internal Examiner)

Dr. M. Mahesh

Department

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Date: 07.07.2021 Place: Bengaluru

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