# ANNA UNIVERSITY :: CHENNAI 600 025

# BONAFIDE CERTIFICATE

Certified that this project report "IOT BASED PROTECTION SYSTEM TO OVER COME VOLTAGE FLUCTUATIONS" is the Bonafide work of "AAKASH M (E18EER001), AKASH P (E18EER002), AKASH RAJ A (E18EER003), AAKASH D (E18EEL317)" who carried out the project work under my supervision.

**SIGNATURE** 

Dr. V. MOHAN, M.E., Ph.D.,

Dr.T.SURESH PADMANABHAN, M.E., Ph.D.,

E.G.S. Pillay Engineering college (Autonomous)

HEAD OF THE DEPARTMENT

**PROFESSOR** 

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Dept. of Electrical and Electronics

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(Autonomous)

Nagapattinum – 611 002

Nagapattinum – 611 002

Submitted for viva-voce examination held on .02-06-2022

INTERNAL EXAMINER

# ANNA UNIVERSITY:: CHENNAI 600 025

### **BONAFIDE CERTIFICATE**

Certified that this project report "SOLDIERS TRACKING AND HEALTH MONITORING SYSTEM USING GPS AND IOT" is the bonafide work of "ARUNKUMAR R (E18EER005), BALAGANESH S (E18EER006), CHOZHAN M (E18EER007), AJAY M (E18EEL302)" who carried out the project work under my supervision.

Linding

**SIGNATURE** 

Dr.V.MOHAN, M.E., Ph.D.,

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Electrical and Electronics Engineering

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**SIGNATURE** 

Mr.R.ANANDARAJ, M.E., (Ph.D).,

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Submitted for viva-voce Examination held on 02-06-2022

INTERNAL EXAMINER

## ANNA UNIVERSITY: CHENNAI 600 025

#### BONAFIDE CERTIFICATE

Certified that this project report titled, "E WASTE 3D PRINTER" is the Bonafide work of DEEPAK.T (Reg.No. E18EER008), DHARIK AHAMED.S (Reg.No.E18EER009), DHEEPAK RAM.R (Reg. No. E18EER010) and ANANTHKUMAR.S (Reg. No. E18EEL303) who carried out the project work under my supervision.

**SIGNATURE** 

Dr. V.MOHAN M.E., Ph.D.,

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HEAD OF THE DEPARTMENT

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Mr. P.J.SURESH BABU M.E.,(Ph.D).,

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**Assistant Professor** 

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Project viva voce examination held on 02 - 06 - 2022

### ANNA UNIVERSITY: CHENNAI 600 025

#### **BONAFIDE CERTIFICATE**

Certified that this project report titled, "INVESTIGATIONS AND MODELLING OF RENEWABLE POWERED ELECTRONIC JAMMER FOR POINT CALIMERE BIRD LIFE SANCTUARY IN NAGAPATTINAM DISTRICT" is the Bonafide work of IMRANNAZIR.N (Reg.No.E18EER011), JAGATHEESH.R (Reg.No. E18EER013), KALAIYARASAN.A (Reg. No. E18EER014) and ASHIQ FARHAD.M (Reg. No. E18EEL305) who carried out the project work under my supervision.

SIGNATURE

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SIGNATURE

Dr. V.MOHAN, M.E., Ph.D.,

Dr.G.GANESAN@SUBRAMANIAN.,

M.E., MIE., Ph.D.,

HEAD OF THE DEPARTMENT SUPERVISOR

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INTERNAL EXAMINER

**EXTERNAL EXAMINER** 

ii

# DECLARATION

I affirm that the project work titled "A FIXED FREQUENCY ZERO VOLTAGE SWITCHING ON-BOARD EV CHARGER" being submitted in partial fulfillment for the award of BACHELOR OF IN ELECTRICAL AND ENGINEERING is the original work carried out by me. It has not formed **ELECTRONICS** the part of any other project work submitted for award of any degree or diploma, either in this or any other University

KEVIN CHRISTOPHER A (E18EER018)

KIRUPAKARAN M (E18EER019)

KUMARAVEL M (E18EER021)

GOPIKRISHNAN P (E18EEL307)

I certify that the declaration made above by the candidate is true

Dr. V.MOHAN M.E., Ph.D.,

- whome'

**SUPERVISOR** 

Professor, Dept. of Electrical and Electronics Engineering

## ANNA UNIVERSITY :: CHENNAI 600 025

### **BONAFIDE CERTIFICATE**

Certified that this project report titled, "DESIGN A GRID CONNECTED SOLAR MULTI LEVEL INVERTER" is the bonafide work of MADHESH B (Reg.No.E18EER022), MANIKANDAN G (Reg.No.E18EER023), MURUGESHKANNAN C (Reg.No.E18EER024), and HARIPRASAD V (Reg.No.E18EEL308) who carried out the project work under my supervision.

**SIGNATURE** 

**SIGNATURE** 

Dr.V.MOHAN M.E., Ph.D.,

Mr.K.NANDAKUMAR M.E., (Ph.D).,

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Nagapattinam-611 002

Nagapattinam-611 002

Project viva-voce Examination Held on 02/96/2022

INTERNAL EXAMINER

Certified that this project report "BLUETOOTH BASED ELECTRIC CAR" is the Bonafide work of G.MUTHUDINESH (E18EER025), P.PREM (E18EER026), R.PUYALARASAN (E18EER027), K.KARAN (E18EEL309) who carried out the Project Work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN M.E.,Ph.D.,

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02/06/2022

OUTED NATE EXAMIER

# ANNA UNIVERSITY, CHENNAI

### BONAFIDE CERTIFICATE

Certified that this project "DESIGN AND FABRICATION OF LINEAR INDUCTION MOTOR" Is the bonafide work of REEHAN.B (Reg. No. E18EER028), SADEESH KUMAR.P (Reg. No. E18EER029) and SHIRAZUDEEN.H (Reg. No. E18EER032) KARTHIKEYAN.R (Reg. No. E18EEL310), who carried out the work under my supervisior. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Jummel

Signature of the Head of the Department

Dr.V.MOHAN, M.E., Ph.D., PROFESSOR & HEAD

Dept. of Electrical and Electronics Engineering,

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(Autonomous) Nagapattinam -611 002

Signature of the Supervisor

Suhmel

Dr.V.MOHAN, M.E., Ph.D.,

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Submitted for the Project viva voice examination held on <u>02/06/902</u>2

INTERN

### **ANNA UNIVERSITY: CHENNAI 600025**

#### **BONAFIDE CERTIFICATE**

Certified that this project report titled, "IOT BASED AUTOMATIC RAILWAY TRACK CRACK DETECTION SYSTEM" is the bonafide work of S.TAMILSELVAN (Reg. No. E18EER036), S.VENKATESWARAN (Reg. No. E18EER037), P.VIGNESH (Reg. No. E18EER038) and K.MANIVANNAN (Reg. No. E18EEL312) who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V. MOHAN M.E., Ph.D.,

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Dr. T. SURESH PADMANABHAN M.E., Ph.D.,

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Nagapattinam-611 002

Submitted for the Viva voce Examination held on <u>02.06.2022</u>

INTERNAL EXAMINER

# ANNA UNIVERSITY :: CHENNAI 600 025 BONAFIDE CERTIFICATE

Certified that this project report "IOT BASED AUTOMATIC VEHICLE ACCIDENT DETECTION AND RESCUE SYSYTEM "is the Bonafide work of "VIGNESH R (E18EER039), VISHNU R (E18EER041), MANOJ M (E18EEL313), MOHAMMED ABBAS C (E18EEL314)" who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN, M.E., Ph.D.,

HEAD OF THE DEPARTMENT

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Dept.of Electrical and Electronics

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**SIGNATURE** 

Mr.R.ANANDARAJ, M.E., (Ph.D).,

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Submitted for viva-voce Examination held on .02/06/2022

INTERNAL EXAMINER

# ANNA UNIVERSITY::CHENNAL 600 025

### BONAFIDE CERTIFICATE

Certified that this project report "AUTOMATIC RAILWAY GATE CONTROLLING AND SIGNALLING SYSTEM" is the bonafide work of AMIRTHAVARSHINI P (E18EER004), ISHWARYA P (E18EER012), (E18EER020), KIRUTHIGA S **TAMIL** POONGHUZHALY (E18EEL317) who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN, M.E.,,,Ph.D.,

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**PROFESSOR** 

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ASSISTANT PROFESSOR

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(Autonomous)

Nagapattinam - 611 002

Submitted for viva-voce Examination held on .. 02-06-2021

INTERNAL EXAMINER

**EXTERNAL** 

Certified that this project report titled, "TOUCHLESS DOORBELL" is the bonafide work of, NIVASH PRASATH.V.R (Reg. No. E19EER035), AMOS.R (Reg. No. E19EER004), KESAVAN.R (Reg. No. E19EER023) and MATHAN KUMAR.K (Reg. No. E19EER028) who carried out the project work under my supervision.

**SIGNATURE** 

Dr. V.MOHAN, M.E., Ph.D.,

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Nagapattinam-611 002

Internal Evaluation Lyan Conductation 23/12/2021

23/12/ 2021

Certified that this mini project report titled, "WIRELESS POWER TRANSMISSION" is the bonafide work of E.RIFATHAHAMED (Reg. No. E19EER040), A.SALMANHARISH(Reg. No. E19EER042), R.SAJITHRAM (Reg. No. E19EEL311) and R.SATHISHKUMAR (Reg. No. E19EEL312) who carried out the project work under my supervision.

**SIGNATURE** 

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Mr.P.J.SURESH BABU M.E., [Ph.D.,]

**SUPERVISOR** 

Assistant-Professor

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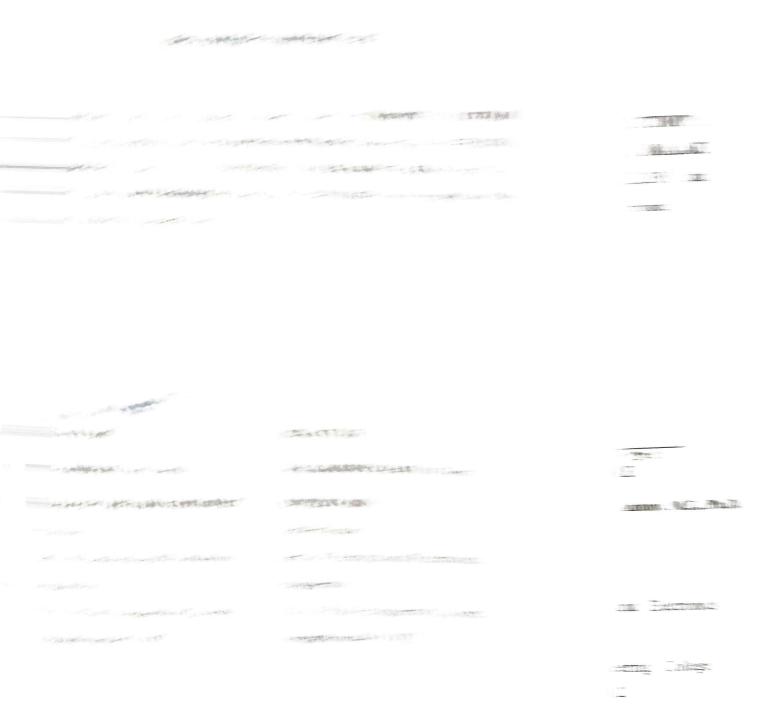
Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

Exam Controlar on 23/12/200

Superior Edouron "



Certified that this project report titled, "CELL PHONE DETECTOR" is the bonafide work of M ASHOKKUMAR (Reg. No. E19EEL302), A BALAJE (Reg. No. E19EEL303), D KEERTHIVASAN (Reg. No. E19EEL305) and S VIGNESH (Reg. No. E19EER054) who carried out the project work under mysupervision.

**SIGNATURE** 

Dr. V. MOHAN M.E., Ph.D.,

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**SIGNATURE** 

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**Assistant Professor** 

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Erom Codrodad on 28/12/11.

Certified that this project report titled, "AUTOMATIC EXHAUST FAN OPERATING CIRCUIT USING SMOKE SENSOR" is the bonafide work of M.ABIKUMAR (Reg. No. E19EEL306), D.DINESH (Reg. No. E19EEL304), K.RAJESH KUMAR (Reg. No. E19EEL309) and S.SABARI (Reg. No.E19EEL310) who carried out the project work under my supervision.

SIGNATURE SIGNATURE

Dr. V.MOHAN, M.E., Ph.D.,

Dr. M.VIJAYAKUMAR, M.E., Ph.D.,

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Exam Carded on 28/12/20.

Certified that this mini project report filled, "AUTOMATIC LIGHT AND DARK NEWNOR" is the bonafide work of S. RISHIKESHI-E19EER941, P.NARAVANAN E19EER044, M.SURENDRAPRSAD - E19EER050 and Y.VASEEM ANRAM E19EER053 who carried out the project work under my supervision.

SIGNATURE

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BIGNATOR

Dr.V.MOHAN., M.E., Ph.D.,

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Liverenter Solvent on 28/12/1

2011113

[Morrey Examinary]

Certificate that the project work entitled "ALCOHOL DETECTION USING ARDUINO" carried out by S.SIVASANKAR (E19EER046), R.SOMNATH (E19EER047), J.SRIRAM(E19EER048), K.VIJAY (E19EER055) and G.VIJAYAKUMAR (E19EER056) are bonafide students of E.G.S PILLAY ENGINEERING COLLEGE (AUTONOMUS), NAGAPATTINAM, in partial fulfillment for the award of Bachelor of Engineering in Electrical & Electronics Engineering during the year 2021-2022.

Signature of the HOD

Signature of the Guide

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Sidestoon Eddet on 28/19/21

Certified that this project report titled, "PORTABLE MINI INVERTER" is the bonafide work of DIVINRAJ.K (Reg.No.E19EER008), DINESHKUMAR.R (Reg. No.E19EER009), DURAIMURUGAN.M (Reg.No.E19EER012), and MUKILAN.P (Reg.No.E17EER036) who carried out the project work under my supervision.

SIGNATURE SIGNATURE

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Certified that this mini project report titled, "POWER GENERATION USING SPEED BREAKER" is the bonafide work of ABILASH.S (Reg. No. E19EER002), KAMAL RAJ.K (Reg. No. E19EER018), KARTHIKESAN.P (Reg. No. E19EER020) and KAVINESH.R (Reg. No. E19EER021) who carried out the project work under my supervision.

SIGNATURE

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Dr. V. MOHAN., M.E., Ph.D.,

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13/12/

SIGNATURE

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E G S Pillay Engineering College, (Autonomous),

Nagapattinam – 611 002.

Examo Godveted on 23/2/2021

Internal Enormoner

Certificate that the project work entitled "third eye for blind" carried out by M.ARAVINTH (E19EER006), S.DINESH (E19EER010), A.JOHN MILTON (E19EER016), S.MANIKANDAN (E19EER025) are bonafide students of E.G.S PILLAY ENGINEERING COLLEGE (AUTONOMUS), NAGAPATTINAM, in partial fulfillment for the award of Bachelor of Engineering in Electrical & Electronics Engineering during the year 2021-2022.

myny

Signature of the HOD

------

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Signature of the Guide

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E.G.S. Pillay Engineering College

Nagapattinam-611 002

Intered Education From Contrated on 23/19/201.

28/18/2081.

Certified that this project report titled, "IoT BASED HOME AUTOMATION SYSTEM" is the bonafide work of GOVINDARAJULU M (Reg. No. E19EER013), KABILAN V (Reg. No. E19EER017), KULOTHUGAN S (Reg. No. E19EER024) and MANOJKUMAR S (Reg. No. E19EER027) who carried out the project work under my supervision.

**SIGNATURE** 

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**SUPERVISOR** 

Assistant Professor

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Examiration Soraboled on 25/12/221

[ Subered 12/2021

Certified that this project report titled, "DISABLED CLAP SWITCH" is the bonafide work of MUHAMMED BAGURUDEEN.H (Reg. No. E19EER030), MOHAMED ABUL FAYASUDEEN.M (Reg. No. E19EER029), NAVEETH AHAMED.T (Reg. No. E19EER034) and NAGARAJAN.S (Reg. No. E19EER033) who carried out the project work under my supervision.

Embury

SIGNATURE

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Dr. V.MOHAN, M.E., Ph.D.,

Dr.V.MOHAN, M.E., Ph.D.,

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Nagapattinam-611 002

Nagapattinam-611 002

Filored Down Conded on 23/14/2021.

Certified that this project report titled, "AUTOMATIC RAIN SENSING" is the BONAFIDE work of MUTHU KRISHNAN. R (Reg. No. E19EER032), KARTHIK. S (Reg. No. E19EER019), DOMINIC ROSARIO.S (Reg. No. E19EER019) and JEGAJEEVI.H (Reg. No. (E19EER016) who carried out the project WORK my supervision.

**SIGNATURE** 

Dr. V. MOHAN ME., Ph. D.,

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SIGNATURE

Dr. T. SURESH PADMANABAN ME., Ph.D.,

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Professor

Dept. of Electrical and Electronics

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E.G.S Pillay Engineering College

Nagapattinam-611 002

French Evaluation Exam Consider on 23/18/2021.

[French Examina].

Certified that this project report "COVID 19 ELECTRONIC SHIELD MASK USING ESP8266" is the Bonafide work of "JEROMIYA S (E17EER024), KURALARASAN S (E17EER027), MOHANRAJ S (E17EER030), KEERTHIVASAN S (E17EEL304)"who carried out the project work under my supervision.

SIGNATURE

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Dr.V.MOHAN,M.E.,Ph.D.,

Dr.T.SURESH PHADMANABAN M.E., Ph.D

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SUPERVISOR

PROFESSOR

**PROFESSOR** 

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Engineering, Engineering,

E.G.S .Pillay Engineering College, E.G.S. Pillay Engineering college.

Nagapattinam-611 002

Nagapattinam-611 002

Submitted for the project viva voice examination held on \_\_\_\_\_

INTERNAL EXAMINER

Certified that this mini-project report titled "ANTI SLEEP ALARM FOR DRIVERS" is the bonafide work of AHAMED.A (E19EEL301), MOHAMED DHILSATH HUSSAIN.S (E19EEL307), NITHEESH.S (E19EEL308) and SRIRAM.V (E19EEL313) who carried out the project work under my supervision.

SIGNATURE

SIGNATURE

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Dr. V.MOHAN M.E., Ph.D.,

Mundel 2

HEAD OF THE DEPARTMENT

Professor

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Dr. V.MOHAN M.E., Ph.D.,

SUPERVISOR

Professor

Dept. of Electrical and Electronics

Engineering

E G S Pillay Engineering College

Nagapattinam-611 002

Africal France Construction of Superior

Certified that this project report titled, "IoT BASED WIFI JAMMER" is bonafide work of AARTHI S(Reg.No.E19EER001), JANANE K S(Reg. J.E19EER015), KEERTHANA M(Reg.No.E19EER022) and SHARMILA (Reg.No.E19EER045), UMAMAHESWARI M (Reg.No. E19EER051) who ried out the project work under my supervision.

**SIGNATURE** 

**SIGNATURE** 

Dr.V.MOHAN,M.E.,Ph.D.,

Mrs. S. LATHA,M.E.,(Ph.D).,

HEAD OF THE DEPARTMENT

SUPERVISOR

Professor

Assistant Professor

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E.G.S. Pillay Engineering College

Nagapattinam-611 002

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De am Conducto oni 28/19/21.

# ANNA UNIVERSITY :: CHENNAI 600 025

# BONAFIDE CERTIFICATE

Certified that this project report "IOT BASED PROTECTION SYSTEM TO OVER COME VOLTAGE FLUCTUATIONS" is the Bonafide work of "AAKASH M (E18EER001), AKASH P (E18EER002), AKASH RAJ A (E18EER003), AAKASH D (E18EEL317)" who carried out the project work under my supervision.

**SIGNATURE** 

Dr. V. MOHAN, M.E., Ph.D.,

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(Autonomous)

Nagapattinum – 611 002

Nagapattinum – 611 002

Submitted for viva-voce examination held on .02-06-2022

INTERNAL EXAMINER

# ANNA UNIVERSITY:: CHENNAI 600 025

### **BONAFIDE CERTIFICATE**

Certified that this project report "SOLDIERS TRACKING AND HEALTH MONITORING SYSTEM USING GPS AND IOT" is the bonafide work of "ARUNKUMAR R (E18EER005), BALAGANESH S (E18EER006), CHOZHAN M (E18EER007), AJAY M (E18EEL302)" who carried out the project work under my supervision.

Linding

**SIGNATURE** 

Dr.V.MOHAN, M.E., Ph.D.,

**HEAD OF THE DEPARTMENT** 

Professor

Electrical and Electronics Engineering

E.G.S.Pillay Engineering College

(Autonomous),

Nagapattinam - 611 002.

R. A-h

**SIGNATURE** 

Mr.R.ANANDARAJ, M.E., (Ph.D).,

**SUPERVISOR** 

Associate Professor

Electrical and Electronics Engineering

E.G.S.Pillay Engineering College

(Autonomous),

Nagapattinam - 611 002.

Submitted for viva-voce Examination held on 02-06-2022

INTERNAL EXAMINER

## ANNA UNIVERSITY: CHENNAI 600 025

#### BONAFIDE CERTIFICATE

Certified that this project report titled, "E WASTE 3D PRINTER" is the Bonafide work of DEEPAK.T (Reg.No. E18EER008), DHARIK AHAMED.S (Reg.No.E18EER009), DHEEPAK RAM.R (Reg. No. E18EER010) and ANANTHKUMAR.S (Reg. No. E18EEL303) who carried out the project work under my supervision.

**SIGNATURE** 

Dr. V.MOHAN M.E., Ph.D.,

Enguna

HEAD OF THE DEPARTMENT

Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

(Autonomous)

Nagapattinam-611 002

SIGNATURE

Mr. P.J.SURESH BABU M.E.,(Ph.D).,

**SUPERVISOR** 

**Assistant Professor** 

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(Autonomous)

Nagapattinam-611 002

Project viva voce examination held on 02 - 06 - 2022

### ANNA UNIVERSITY: CHENNAI 600 025

#### **BONAFIDE CERTIFICATE**

Certified that this project report titled, "INVESTIGATIONS AND MODELLING OF RENEWABLE POWERED ELECTRONIC JAMMER FOR POINT CALIMERE BIRD LIFE SANCTUARY IN NAGAPATTINAM DISTRICT" is the Bonafide work of IMRANNAZIR.N (Reg.No.E18EER011), JAGATHEESH.R (Reg.No. E18EER013), KALAIYARASAN.A (Reg. No. E18EER014) and ASHIQ FARHAD.M (Reg. No. E18EEL305) who carried out the project work under my supervision.

SIGNATURE

Summer

SIGNATURE

Dr. V.MOHAN, M.E., Ph.D.,

Dr.G.GANESAN@SUBRAMANIAN.,

M.E., MIE., Ph.D.,

HEAD OF THE DEPARTMENT SUPERVISOR

**Professor** 

Associate Professor

Dept. of Electrical and Electronics Dept. of Electrical and Electronics Engineering

E.G.S. Pillay Engineering College E.G.S. Pillay Engineering College Nagapattinam-611 002 Nagapattinam-611 002

INTERNAL EXAMINER

**EXTERNAL EXAMINER** 

ii

# DECLARATION

I affirm that the project work titled "A FIXED FREQUENCY ZERO VOLTAGE SWITCHING ON-BOARD EV CHARGER" being submitted in partial fulfillment for the award of BACHELOR OF IN ELECTRICAL AND ENGINEERING is the original work carried out by me. It has not formed **ELECTRONICS** the part of any other project work submitted for award of any degree or diploma, either in this or any other University

KEVIN CHRISTOPHER A (E18EER018)

KIRUPAKARAN M (E18EER019)

KUMARAVEL M (E18EER021)

GOPIKRISHNAN P (E18EEL307)

I certify that the declaration made above by the candidate is true

Dr. V.MOHAN M.E., Ph.D.,

- whome'

**SUPERVISOR** 

Professor, Dept. of Electrical and Electronics Engineering

## ANNA UNIVERSITY :: CHENNAI 600 025

### **BONAFIDE CERTIFICATE**

Certified that this project report titled, "DESIGN A GRID CONNECTED SOLAR MULTI LEVEL INVERTER" is the bonafide work of MADHESH B (Reg.No.E18EER022), MANIKANDAN G (Reg.No.E18EER023), MURUGESHKANNAN C (Reg.No.E18EER024), and HARIPRASAD V (Reg.No.E18EEL308) who carried out the project work under my supervision.

**SIGNATURE** 

**SIGNATURE** 

Dr.V.MOHAN M.E., Ph.D.,

Mr.K.NANDAKUMAR M.E., (Ph.D).,

HEAD OF THE DEPARTMENT

**SUPERVISOR** 

Professor

**Assistant Professor** 

Dept.of Electrical and Electronics

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Nagapattinam-611 002

Nagapattinam-611 002

Project viva-voce Examination Held on 02/96/2022

INTERNAL EXAMINER

Certified that this project report "BLUETOOTH BASED ELECTRIC CAR" is the Bonafide work of G.MUTHUDINESH (E18EER025), P.PREM (E18EER026), R.PUYALARASAN (E18EER027), K.KARAN (E18EEL309) who carried out the Project Work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN M.E.,Ph.D.,

HEAD OF THE DEPARTMENT

Professor

Dept. of Electrical and Electronics

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SIGNATUŔE

Prof. S.SIVAMANI, M.E.,

**SUPERVISOR** 

Assistant Professor

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Nagapattinam-611 002

02/06/2022

INTERNAL EXAMIER

# ANNA UNIVERSITY, CHENNAI

### BONAFIDE CERTIFICATE

Certified that this project "DESIGN AND FABRICATION OF LINEAR INDUCTION MOTOR" Is the bonafide work of REEHAN.B (Reg. No. E18EER028), SADEESH KUMAR.P (Reg. No. E18EER029) and SHIRAZUDEEN.H (Reg. No. E18EER032) KARTHIKEYAN.R (Reg. No. E18EEL310), who carried out the work under my supervisior. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Johnson

Signature of the Head of the Department

Dr.V.MOHAN, M.E., Ph.D., PROFESSOR & HEAD

Dept. of Electrical and Electronics Engineering,

E.G.S. Pillay Engineering College,

(Autonomous) Nagapattinam -611 002

Signature of the Supervisor

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Dr.V.MOHAN, M.E., Ph.D.,

PROFESSOR & HEAD

Dept. of Electrical and Electronics Engineering,

E.G.S. Pillay Engineering College,

(Autonomous) Nagapattinam -611 002

Submitted for the Project viva voice examination held on <u>02/06/902</u>2

INTERN

### **ANNA UNIVERSITY: CHENNAI 600025**

#### **BONAFIDE CERTIFICATE**

Certified that this project report titled, "IOT BASED AUTOMATIC RAILWAY TRACK CRACK DETECTION SYSTEM" is the bonafide work of S.TAMILSELVAN (Reg. No. E18EER036), S.VENKATESWARAN (Reg. No. E18EER037), P.VIGNESH (Reg. No. E18EER038) and K.MANIVANNAN (Reg. No. E18EEL312) who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V. MOHAN M.E., Ph.D.,

HEAD OF THE DEPARTMENT

**PROFESSOR** 

Dept .of Electrical and Electronics

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SIGNATURE

Dr. T. SURESH PADMANABHAN M.E., Ph.D.,

**SUPERVISOR** 

**PROFESSOR** 

Dept .of Electrical and Electronics

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E.G.S.Pillay Engineering college

(Autonomous)

Nagapattinam-611 002

Submitted for the Viva voce Examination held on <u>D2.06.2022</u>

INTERNAL EXAMINER

# ANNA UNIVERSITY :: CHENNAI 600 025 BONAFIDE CERTIFICATE

Certified that this project report "IOT BASED AUTOMATIC VEHICLE ACCIDENT DETECTION AND RESCUE SYSYTEM "is the Bonafide work of "VIGNESH R (E18EER039), VISHNU R (E18EER041), MANOJ M (E18EEL313), MOHAMMED ABBAS C (E18EEL314)" who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN, M.E., Ph.D.,

HEAD OF THE DEPARTMENT

**PROFESSOR** 

Dept.of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam - 611 002

R. A-1/6/2

**SIGNATURE** 

Mr.R.ANANDARAJ, M.E., (Ph.D).,

**SUPERVISOR** 

ASSOCIATE PROFESSOR

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam - 611 002

Submitted for viva-voce Examination held on .02/06/2022

INTERNAL EXAMINER

# ANNA UNIVERSITY::CHENNAL 600 025

# BONAFIDE CERTIFICATE

Certified that this project report "AUTOMATIC RAILWAY GATE CONTROLLING AND SIGNALLING SYSTEM" is the bonafide work of AMIRTHAVARSHINI P (E18EER004), ISHWARYA P (E18EER012), (E18EER020), KIRUTHIGA S **TAMIL** POONGHUZHALY (E18EEL317) who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN, M.E.,,,Ph.D.,

Jummer

HEAD OF THE DEPARTMENT

**PROFESSOR** 

Electrical and Electronics Engineering

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(Autonomous)

Nagapattinam - 611 002

SIGNATUŔĖ

Mrs.S.LATHA, M.E.,(Ph.D.)

**SUPERVISOR** 

ASSISTANT PROFESSOR

Electrical and Electronics Engineering

E.G.S Pillay Engineering College

(Autonomous)

Nagapattinam - 611 002

Submitted for viva-voce Examination held on .. 02-06-2021

INTERNAL EXAMINER

**EXTERNAL** 

#### **BONAFIDE CERTIFICATE**

Certified that this report titled "SOLAR POWERED ENERGY EFFICIENT DISRIBUTION SYSTEM BASED ON INTERLEAVED FLYBACK CONVERTER TOPOLOGY" is the bonafide work of ANANTH R (E20PEF001) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of the Head of the Department

Janhand !

Dr. V.MOHAN, M.E., Ph.D., PROFESSOR & HEAD

Dept. of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College (Autonomous), Nagapattinam -611 002. Signature of the Supervisor

Dr. M.VIJAYAKUMAR, M.E.,Ph.D., ASSOCIATE PROFESSOR

Dept. of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College (Autonomous). Nagapattinam -611 002.

Submitted for the Project Phase-I viva voce examination held on 29 /12/2021

INTERNÁL EXAMINER

#### **BONAFIDE CERTIFICATE**

Converter for EV Applications " is the bonafide work of Anbarasan U (E20PEF002) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of Head of the Department

January.

Dr.V.MOHAN, M.E., Ph.D.,

**PROFESSOR & HEAD** 

Dept. of Electrical and Electronics Engineering, E.G.S. Pillay Engineering College (Autonomous), Nagapattinam -611 002 Signature of the Supervisor

Dr.V.MOHAN, M.E., Ph.D.,

**PROFESSOR & HEAD** 

Dept. of Electrical and Electronics Engineering. E.G.S. Pillay Engineering College (Autonomous), Nagapattinam -611 002

Submitted for the Project Phase-II viva voice examination held on 12/7/22

INTERNALXEXAMINER

**EXTERNAL EXAMINER** 

M. JEN 7/2/07/202

#### BONAFIDE CERTIFICATE

Certified that this report titled "IMPROVEMENT OF POWER FACTOR USING FLYBACK CONVERTER FED DC MICROGRID" is the bonafide work of HARIKRISHNA'S (E20PEF003) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of the Head of the Department

Dr.M.VIJAYAKUMAR, M.E., Ph.D.,
Associate Professor & PG HOD,
M.E. Power Electronics and Drives
Dept.of Electrical & Electronics Engineering,
E.G.S.Pillay Engineering College,
Nagapattinam -611 002.

Signature of the Supervisor

Dr.M.VIJAYAKUMAR, M.E., Ph.D.,
Associate Professor & PG HOD,
M.E. Power Electronics and Drives
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E.G.S.Pillay Engineering College,
Nagapattinam -611 002

Submitted for the Project Phase-II viva voce examination held on 12 - 07 - 2022

INTERNAL EXAMINER

#### BONAFIDE CERTIFICATE

Cell for Power System" is the bonafide work of JHAGANNATH K (E20PEF004) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of the Head of the Department

Dr. M.VIJAYAKUMAR, M.E., Ph.D.,

Associate Professor & PG HOD

M.E. Power Electronics & Drives,

Dept. of Electrical & Electronics Engineering

E.G.S. Pillay Engineering College

Nagapattinam.

Signature of the Supervisor

Mr. P.J.SURESH BABU, M.E., (Ph.D.,)

**Assistant Professor** 

Dept. of Electrical & Electronics Engineering

E.G.S. Pillay Engineering College

Nagapattinam.

Submitted for the Project Phase-II viva voce examination held on 12/0 7/20 22

INTERNAL EXAMINER

# ANNA UNIVERSITY, CHENNAI BONAFIDE CERTIFICATE

Certified that this report titled "SPEED CONTROL OF BLDC MOTOR DRIVE USING LUO CONVERTER" is the bonafide work of KALIDOSS S (E20PEF005) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of the Head of the Department

Dr. M.VIJAYAKUMAR, M.E., Ph.D.,

ASSOCIATE PROFESSOR /PG HOD,

M.E. Power Electronics & Drives,

Dept. of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College (Autonomous), Nagapattinam -611 002. Signature of the Supervisor

Mr. R. ANANDARAJ, M.E.,(Ph.D)., ASSOCIATE PROFESSOR

Dept. of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College (Autonomous), Nagapattinam -611 002.

Submitted for the Project Phase-Iviva voice examination held on 12/07/22

INTERNAL EXAMINER

### **BONAFIDE CERTIFICATE**

CONVERTER BASED SOLAR APPLICATIONS USING ANFIS MPPT" is the bonafide work of MARIMUTHU B (E20PEF006) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Somme

Signature of Head of the Department

Dr.V.MOHAN, M.E., Ph.D.,

PROFESSOR & HEAD

Dept. of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College (Autonomous), Nagapattinam -611 002 Signature of the Supervisor

Dr.V.MOHAN, M.E., Ph.D.,

**PROFESSOR & HEAD** 

Dept. of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College (Autonomous), Nagapattinam -611 002

Submitted for the Project Phase-II viva voce examination held on 12/07/2020

INTERNALSEXAMINER

### BONAFIDE CERTIFICATE

Certified that this report titled "HYBRID ENERGY STORAGE SYSTEM FOR GRID TIED EV APPLICATION" is the bonafide work of RAMANAN R (E20PEF007) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of Head of the Department

Dr.M.VIJAYAKUMAR, M.E., Ph.D.,

ASSOCIATE PROFESSOR & HEAD

M.E. POWER ELECTRONICS AND DRIVES Dept. of Electrical and Electronics Engineering, E.G.S. Pillay Engineering College (Autonomous), Nagapattinam -611 002. Signature of the Supervisor

Mr. R. ANANDARAJ M.E.,

ASSOCIATE PROFESSOR

Dept. of Electrical and Electronics Engineering, E.G.S. Pillay Engineering College (Autonomous), Nagapattinam -611 002.

Submitted for the Project Phase-II viva voice examination held on

INTERNAL EXAMINER

Certified that this report titled "SEPIC CONVERTER BASED BATTERY MANAGEMENT SYSTEM " is the bonafide work of SAMSON EBINAZER J (E20PEF008) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of the Head of the Department

Dr.M.VIJAYAKUMAR, M.E., Ph.D., Associate Professor/PG HOD, M.E. Power Electronic & Drive.

Signature of the Supervisor

Dr.T.SURESH PADMANABHAN, M.E., Ph.D., Professor and Head,

E.G.S. Pillay Engineering College

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Dept. of Electrical & Electronics Engineering Dept. of Electrical & Electronics Engineering

E.G.S. Pillay Engineering College

Nagapattinam -611002.

Submitted for the Project Phase-II viva voce examination held on 12 7 22

INTERNAL EXAMINER

### BONAFIDE CERTIFICATE

Certified that this report titled "FUZZY CONTROLLER BASED SINGLE PHASE BIDIRECTIONAL ELECTRIC DRIVE SYSTEM" is the bonafide work of SIVASANGARAN R (E20PEF009) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein 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 on this or any other candidate.

Signature of the HOD

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Dr.V.MOHAN, M.E., Ph.D., PROFESSOR & HEAD

Dept. of Electrical & Electronics Engineering, E.G.S.Pillay Engineering College,

Nagapattinam -611 002.

Signature of the Supervisor

Dr.T.SURESH PADMANABHAN, M.E., Ph.D., PROFESSOR

Dept. of Electrical & Electronics Engineering, E.G.S.Pillay Engineering College

Nagapattinam -611 002.

Submitted for the Project Phase-I viva voce examination held on 29/12/21

INTERNAL EXAMINER

Certified that this project report titled, "SOLAR DC HOME" is the bonafide work of E.RIFATHAHAMED (Reg. No. E19EER040), A.SALMANHARISH(Reg. No. E19EER042), R.SAJITHRAM (Reg. No. E19EEL311) and R.SATHISHKUMAR (Reg. No. E19EEL312) who carried out the project work under my supervision.

SIGNATURE

Dr. V.MOHAN M.E., Ph.D.,

HEAD OF THE DEPARTMENT

**Professor** 

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

SIGNATURE

Mr.P.J.Suresh Babu M.E., [Ph.D.,]

**SUPERVISOR** 

Assistant Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

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31/08/22

31/2

Certified that this project report titled, "ARDUINO BASED SPEED CONTROL OF FAN" is the bonafide work of NIYASUDEEN.N (Reg. No. E19EER036), PRAKASH RAJ.S (Reg. No. E19EER037), RAGUNANTHAN.G (Reg. No. E19EER038) and SANTHOSH.R (Reg. No. E19EER043) who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN, M.E., Ph.D.,

HEAD OF THE DEPARTMENT

Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

SIGNATURE

Mr.K.KRISHNARAM, M.Tech.,

SUPERVISOR

Asst Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

Propert 15 rom hel on 31/01/222

2

Certified that this project report titled, "NON-CONTACT TACHOMETER USING ARDUINO" is the bonafide work of S.VIGNESH (Reg. No. E19EER054), M.ASHOKKUMAR (Reg.No. E19EEL302), A.BALAJE (Reg.No. E19EEL303), and D.KEERTHIVASAN (Reg. No. E19EEL305) who carried out the project work under my supervision.

SIGNATURE

/ mound

Dr. V. MOHAN M.E., Ph.D.,

HEAD OF THE DEPARTMENT

Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam - 611 002

SIGNATURE

Mr. B. Amalore Naveen Antony, M.E., (Ph.D.)

**SUPERVISOR** 

Assistant Professor

Dept. of Electrical and Electronics

Engineering

I Vik held on 3/05/2022 3008

E.G.S. Pillay Engineering College

Certified that this project report titled, "ZERO CROSSING DETECTOR FOR POWER ELECTRONICS APPLICATION" is the bonafide work of SURAJ SINGH (REG.NO.E19EER048), M.ABIKUMAR (Reg. No. E19EEL306), D.DINESH (Reg.No.E19EEL304), K.RAJESH KUMAR (Reg. No. E19EEL309) and S.SABARI (Reg. No. E19EEL310) who carried out the project work under my supervision.

SIGNATURE

endine

Dr. V.MOHAN, M.E., Ph.D.,

HEAD OF THE DEPARTMENT

Professor

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Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

SIGNATURE

Dr. M.VIJAYAKUMAR, M.E., Ph.D.,

SUPERVISOR

Associate Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

Project Use From 31/01/2022

Certified that this mini project report titled. "AUTOMATIC SANITIZER DISPENSER" is the bonafide work of S.RISHIKESHE-E19EER041, P.SARAVANAN-E19EER044, M.SURENDRAPRSAD-E19EER050, J.VARATHARAJAN-E19EER052 and Y.VASEEM AKRAM-E19EER053 who carried out the project work under my supervision.

SIGNATURE

Dr.V.MOHAN., M.E., Ph.D.,

HEAD OF THE DEPARTMENT

Professor

Dept of Electrical and Electronics

Engineering.

E.G.5 Pillay Engineering College

Nagapattinam-611002

SIGNATURE

Dr.G.GANESAN., M.E., MIE., Ph.D.

SUPERVISOR

Associate Professor

Dept of Electrical and Electronics

Engineering

k (15 Pillay Engineering College.

Nagapattinam 611002

Track Draw hell a 1/11/100

Certificate that the project work entitled "Radio Detection And Ranging Using Arduino" carried out by S.Sivashankar (E19EER046), R.Somnath (E19EER047), J.Sriram (E19EER016), K.Vijay (E19EER055), G.Vijayakumar (E19EER056) are Pillay Engineering (Autonomus) bonafide of E.G.S students Nagapattinam, in partial fulfillment for the award of Bachelor of Engineering in Electrical & Electronics Engineering during the year 2021-2022.

Signature of the HOD

Dr.V.MOHAN.,M.E.,Ph.D.,

Professor& HOD Dept.of Electrical & Electronics Engineering E.G.S. Pillay Engineering College Nagapattinam-611 002

Signature of the Guide

Mr. R. ANANDARAJ., M.E., (Ph.D).,

Associate Professor Dept.of Electrical & Electronics Engineering E.G.S. Pillay Engineering College Nagapattinam-611 002

froget Use has an 31/00/2012

Certified that this project report titled, "AUTO THEFT ALERT SYSTEM work of DIVINRAJ.K bonafide ARDUINO" the USING No.E19EER009), DINESHKUMAR.R (Reg. (Reg.No.E19EER008), (Reg.No.(E19EER012), and **MUKILAN.P** DURAIMURUGAN.M (Reg.No.E17EER036)who carried out the project work under my supervision.

**SIGNATURE** 

Dr.V.MOHAN M.E., Ph.D.,

HEAD OF THE DEPARTMENT

Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

SIGNATURE

Dr. G. GANESAN M.E., MIE., Ph.D.,

**SUPERVISOR** 

Associate Professor

Dept. of Electrical and Electronics

Engineering

E.G.S. Pillay Engineering College

Nagapattinam-611 002

Examinato held on 31/01/2022

Certified that this mini project report titled, "SMART PLANT IRRIGATION SYSTEM" is the Bonafede work of ABILASH.S (Reg. No. E19EER002), KAMAL RAJ.K (Reg. No. E19EER018), KARTHIKESAN.P (Reg. No. E19EER020) and KAVINESH.R (Reg. No. E19EER021) who carried out the project work under my supervision.

**SIGNATURE** 

**SIGNATURE** 

M.E., Ph.D.,

Dr. T. SURESH PADMANABHAN.,

Dr. V. MOHAN., M.E., Ph.D.,

SUPERVISOR

HEAD OF THE DEPARTMENT

Professor,
Dept. of Electrical and Electronics Engineering,
E.G.S. Pillay Engineering College, (Autonomous),
Nagapattinam – 611 002.

Professor

Dept. of Electrical and Electronics Engineering, E.G.S. Pillay Engineering College, (Autonomous), Nagapattinam – 611 002.

Roject Frankiski bell on 31/0/2022

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Certified that this project report titled, "AIR QUALITY MONITERING SYSTEM" is the BONAFIDE work of DOMINIC ROSARIO.S (Reg. No. E19EER012), JEGAJEEVI.J (Reg. No. (E19EER016), KARTHIK. S (Reg. No. E19EER019) and MUTHU KRISHNAN. R (Reg. No. E19EER032) who carried out the project WORK my supervision.

**SIGNATURE** 

**SIGNATURE** 

Dr V. MOHAN ME., Ph.D.,

Dr T. SURESH PADMANABHAN ME., PhD.,

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Togical Viva teld on 3/05/2,22

OHENTE

Certified that this mini-project report titled "OBSTACLE AVOIDING FOR CAR USING ARDUINO" is the Bonafide work of AHAMED.A (E19EEL301), MOHAMED DHILSATH HUSSAIN.S (E19EEL307), NITHEESH.S (E19EEL308) and SRIRAM.V (E19EEL313) who carried out the projectwork under my supervision.

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Dr. V.MOHAN M.E., Ph.D.,

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Certified that this project report titled, "MOBILE APPLICATION BASED HOME AUTOMATION SYSTEM USING IoT" is the bonafide work of GOVINDARAJULU M (Reg. No. E19EER013), KABILAN V (Reg. No. E19EER017), KULOTHUGAN S (Reg. No. E19EER024) MANOJKUMAR S (Reg. No. E19EER027) who carried out the project work under my supervision.

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St WHA fell on 31/05/2022

Certificate that the project work entitled "Humidity and Temperature Detector" carried out by M.Aravinth (E19EER006), S.Dinesh (E19EER010), A.John Milton (E19EER016), S.Manikandan (E19EER025) are bonafide students of E.G.S Pillay Engineering (Autonomus) College, Nagapattinam, in partial fulfillment for the award of Bachelor of Engineering in Electrical & Electronics Engineering during the year 2021-2022.

Signature of the HOD

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Signature of the Guide

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Project Examustin: 31/00/2022

3/0/201

Certified that this project report titled. "SOLAR **ENERGY MONITORING** SYSTEM" is the bonafide work of **AARTHI** S(.E19EER001), JANANE K S(E19EER015), KEERTHANA M(E19EER022) and SHARMILA M(E19EER045), UMAMAHESWARI M (E19EER051) who carried out the project work under my supervision.

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Roject from Add on 31/2/2032

Certified that this project report titled, "AUTOMATIC LED EMERGENCY LIGHT" is the bonafide work of M.AAKASH (Reg. No. E18EER001), P.AKASH (Reg. No. E18EER002), A.AKASH RAJ (Reg. No. E18EER003) and D.AAKASH (Reg. No. E18EEL301) who carried out the project work under my supervision.

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Certified that this Project Report Titled, "AUTOMATIC IRRIGATION SYSTEM USING ARDUINO UNO" is the Bonafide Work of ARUNKUMAR R (E18EER005), BALAGANESH S (E18EER006), CHOZHAN M (E18EER007) and AJAY M (E18EEL302) Who Carried Out the Project Work Under my Supervision.

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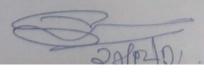
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Exam Guardes on : 24/12/2021.



Certified that this project report titled, "DUAL AXIS SOLAR TARCKING SYSTEM" is the bonafide work of DEEPAK.T (Reg.No. E18EER008), DHARIK AHAMED.S(Reg. No. E18EER009), DHEEPAKRAM.R (Reg. No. E18EER010) and ANANDTHKUMAR.S (Reg. No. E18EEL303) who carried out the project work under my supervision.

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Certified that this project report titled, "DESIGN AND TESTING OF A MOBILE PHONE JAMMER" is the bonafide work of JAGATHEESH.R (Reg.No. (Reg.No.E18EER011), KALAIYARASAN.A E18EER013), IMRANNAZIR.N (Reg. No. E18EER014) and ASHIQ FARHAD.M(Reg. No. E18EEL305) who carried out the project work under my supervision.

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Certified that this project report titled, "PORTABLE ULTRASONIC RANGE METER" is the bonafide work of KALIDOSS.K (Reg. No. E18EER015), KAMALESH.K (Reg. No. E18EER016), KEERTHIVASAN.B (Reg. No. E18EER017) and BHARATHIRAJA.G (Reg. No. E18EEL306) who carried out the project work under my supervision.

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Certified that this project report title "AUTOMATIC CHANGE OVER SYSTEM USING 555 TIMER" is the bonafide work of KEVIN CHRISTOPHER A (E18EER018), KIRUPAKARAN M (E18EER019), KUMARAVEL M (E18EER021) and GOPIKRISHNAN P (E18EEL307) who carried out the project work under my supervision.

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Certified that this project report titled, "TOUCH ON AND OFF SWITCH CIRCUIT" is the bonafide work of MADHESH B (Reg.No.E18EER022), MANIKANDAN G (Reg.No.E18EER023), MURUGESHKANNAN C (Reg.No.E18EER024), and HARIPRASAD V (Reg.No.E18EEL308) who carried out the project work under my supervision.

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Certified that this project report titled is AUTOMATIC WATER LEVEL INDICATOR the bonafide work of G.MUTHUDINESH (E18EER025), P.PREM (E18EER026), R.PUYALARASAN (E18EER027), K.KARAN (E18EEL309) who carried out the project work under my supervision.

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Certified that this project report titled, "BATTERY LEVEL INDICATOR" is the bonafide work of KARTHIKEYAN.R (Reg. No. E18EEL310), REEHAN.B (Reg. No. E18EER028), SADEESH KUMAR.P (Reg. No. E18EER029) and SHIRAZUDEEN.H (Reg. No. E18EER032) who carried out the project work under my supervision.

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Certified that this project report titled, "DESIGN OF HOME AUTOMATION USING ARDUINO" is the bonafide work of SRIRAM.M (Reg. No. E18EERO), SUJITH VARMAN.S (Reg. No. E18EER034), SURIYA PRAKASH.A (Reg. No. E18EER035) and KARTHIK RAJA.R (Reg. No. E18EEL311) who carried out the project work under my supervision.

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Certified that this project report titled, "ARDUINO BASED RAIN DETECTION SYSTEM" is the bonafide work of S.TAMILSELVAN (Reg. E18EER036), S.VENKATESWARAN (Reg. No. E18EER037), P.VIGNESH (Reg. No. E18EER038) and K.MANIVANNAN (Reg. No. E18EEL312) who carried out the project work under my supervision.

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Certified that this project report titled, "MOBILE PHONE DETECTOR" is the bonafide work of VIGNESH R (Reg.No. E18EER039), VISHNU R (Reg.No.E18EER041), MANOJ M (Reg.No. E18EEL313) and MOHAMMED ABBAS C (Reg.No. E18EEL314) who carried out the project work under my supervision.

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Certified that this project report titled, "AUTOMATIC STREET LIGHT CONTROLLER USING LDR" is the bonafide work of R.RAMKUMAR (Reg. No. E18EEL315), S.SATHISH (Reg. No. E18EEL316), S.VIGNESHWARAN (Reg. No. E18EEL318) and who carried out the project work under my supervision.

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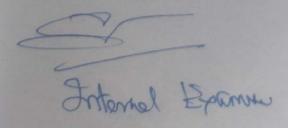
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Certified that this Project Report Titled, "MOTION DETECTOR CIRCUIT" is the Bonafide work P.AMIRTHAVARSHINI (E18EER004), P.ISHWARYA (E18EER012), S.KIRUTHIGA (E18EER020), I.TAMILPOONGHUZHALY (E18EEL317) Who Carried out the Project Work under My Supervision.

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