

**DETECTION OF LIVER CANCER USING IMAGE  
PROCESSING TECHNIQUES**

**A PROJECT REPORT**

Submitted by

**AKSHAYA G (210616104002)**

**ANU PRIYA E (210616104005)**

**ISHWARIYA M (210616104021)**

in the partial fulfillment for the award of the degree

of

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**ANNA UNIVERSITY: CHENNAI 600025**

**APRIL 2020**

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ANNA UNIVERSITY: CHENNAI 600 025

**BONAFIDE CERTIFICATE**

Certified that this project report "DETECTION OF LIVER CANCER USING IMAGE PROCESSING TECHNIQUES" is the bonafide work of "AKSHAYA G (210616104002), ANUPRIYA E (210616104005), ISHWARIYA M (210616104021) "who carried out the project work under my supervision.



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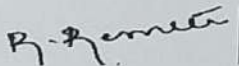
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This project report is submitted for viva voice examination to be held on 22.09.2020



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

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# E -PATIENT DEIDENTIFIED RECORD INTEGRATION USING CLOUD COMPUTING

## A PROJECT REPORT

Submitted by

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Hariharan M (210616104019)

Aswath R S (210616104010)

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Certified that this project report "E-PATIENT DEIDENTIFIED RECORD INTEGRATION USING CLOUD COMPUTING" is the bonafide work of "VINOTH KUMAR D (210616104051) HARIHARAN M(210616104019) ASWATH R.S(210616104010)" who carried out the project work under my supervision.



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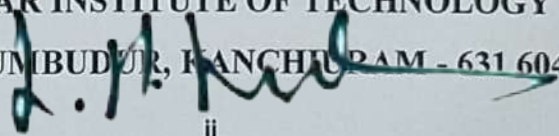


**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

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**AGRO ONLINE SHOPPING USING  
WEB APPLICATION**

**A PROJECT REPORT**

Submitted by

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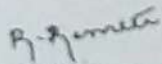
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**PROVIDING SECURITY FOR DATABASE USING  
FINGERPRINT MASKING**

**A PROJECT REPORT**

Submitted by

**NAGARANI.G (210616104032)**

**THIRUKKURALI.P.S (210616104049)**

**THEJASWINI.G (210616104048)**

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**DEEP LEARNING BASED ATTENDANCE MONITORING  
SYSTEM USING FACIAL RECOGNITION**

**A PROJECT REPORT**

Submitted by

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**ARUL G BERSHIN. A B** (210616104006)

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APRIL 2020

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Certified that this project report "DEEP LEARNING BASED ATTENDANCE MONITORING SYSTEM USING FACIAL RECOGNITION" is the bonafide work of "ARUNKUMAR.S (210616104007) , ARUL G BERSHIN. A B (210616104006), VIJAY KRISHNA. J (210616104051)" who carried out the project work under my supervision.

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**ADDRESSING SECURITY RISKS IN CLOUD  
COMPUTING BY ABE METHODS**

**A PROJECT REPORT**

Submitted by

**JAYAGANESH. V (210616104022)**

**VISHNU RANJAN. R (210616104052)**

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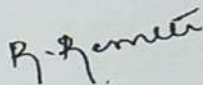
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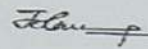
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**AN IOT BASED CLOUD INTEGRATED SMART AND  
SUSTAINABLE CLASSROOM**

**A PROJECT REPORT**

Submitted by

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**PRAVEEN RAJU P** (210616104038)

**NAVEEN KUMAR M** (210616104034)

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APRIL 2020

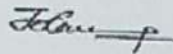
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Certified that this project report "AN IOT BASED CLOUD INTEGRATED SMART AND SUSTAINABLE CLASSROOM" is the bonafide work of "BALAKRISHNAN M (210616104012), PRAVEEN RAJU P (210616104038), NAVEEN KUMAR M (210616104034)" who carried out the project work under my supervision.

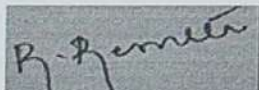


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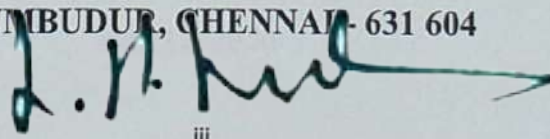
**Internal Examiner**



**External Examiner**

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**AN INTELLIGENT IOT BASED PEOPLE EVACUATION  
GUIDANCE MODEL FOR FIRE HAZARD**

**A PROJECT REPORT**

Submitted by

**NYLE. S (210616104035)**

**SRILEKHA. A (210616104045)**

**SUVETHA .B (210616104047)**

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Certified that this project report "AN INTELLIGENT IOT BASED PEOPLE EVACUATION GUIDANCE MODEL FOR FIRE HAZARD " is the bonafide work of "NYLE S (210616104035), SRILEKHA A (210616104045) SUVETHA B (210616104047), YUVARANI K (210616104053)" who carried out the project work under my supervision.



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**ANDROID VOTING SYSTEM USING QUICK RESPONSE  
CODE**

**A PROJECT REPORT**

Submitted by

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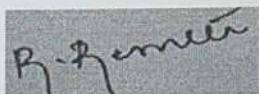
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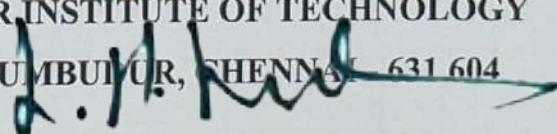


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**AN IOT BASED TEMPERATURE MONITORING SYSTEM  
FOR INDUSTRIES AND TRANSPORTATIONS**

**A PROJECT REPORT**

Submitted by

**ALAN RONALD ARASU M C (210616104004)**

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**APRIL 2020**

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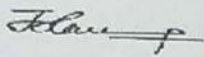
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Certified that this project report "AN IOT BASED TEMPERATURE MONITORING SYSTEM FOR INDUSTRIES AND TRANSPORTATIONS" is the bonafide work of "ALAN RONALD ARASU MC (210616104004), BALAKRISHNAN S (210616104013), LOKESH L (210616104029)" who carried out the project work under my supervision.

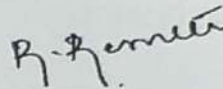


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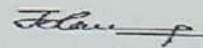
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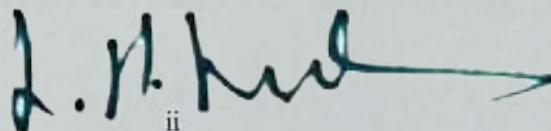
**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

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# SMART WATER MANAGEMENT SYSTEM FOR WATER LOSS DETECTION USING IOT

A PROJECT REPORT

Submitted by

FREDHA CARNELIAN.F (210616104018)

HEMALATHA.S (210616104020)

KAVUSALYA.M (210616104025)

in the partial fulfillment for the award of the degree

of

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in

COMPUTER SCIENCE ENGINEERING



JEPPIAAR INSTITUTE OF TECHNOLOGY

ANNA UNIVERSITY: CHENNAI 600025 APRIL 2020

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ANNA UNIVERSITY: CHENNAI 600 025

**BONAFIDE CERTIFICATE**

Certified that this project report "SMART WATER MANAGEMENT SYSTEM FOR WATER LOSS DETECTION USING IOT" is the bonafide work of "FREDHA CARNELIAN F (210616104018), HEMALATAHA S (210616104020), KAVUSALYA M (210615104025)" who carried out the project work under my supervision.

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*[Handwritten Signature]*

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# FOOD SUPPLY CHAIN MANAGEMENT USING BLOCK CHAIN IN FOOD TRACEABILITY

A PROJECT REPORT

Submitted by

ABINAYA .P (210616104001)

KANIMOZHI.J (210616104024)

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in

COMPUTER SCIENCE AND ENGINEERING



JEPPIAAR INSTITUTE OF TECHNOLOGY

ANNA UNIVERSITY : CHENNAI 600025

APRIL 2020

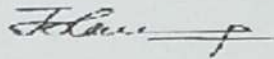
PRINCIPAL

JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604

ANNA UNIVERSITY::CHENNAI 600 025

**BONAFIDE CERTIFICATE**

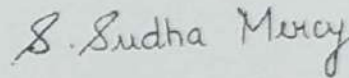
Certified that this project report "FOOD SUPPLY CHAIN MANAGEMENT USING BLOCK CHAIN IN FOOD TRACEABILITY" is the bonafide work of "ABINAYA .P(210616104001), KANIMOZHI.J (210616104024) SHREE ROHINI.I (210616104042)" who carried out the project work under my supervision.



**SIGNATURE**

Dr. J. FARITHA BANU., M.E., Ph.D.,  
Professor

**HEAD OF THE DEPARTMENT**  
Computer Science and Engineering  
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Sriperumbudur, Chennai.



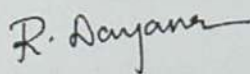
**SIGNATURE**

Ms. SUDHA MERCY S, M.E.,(Ph.D.)  
Assistant Professor


**SUPERVISOR**

Computer Science and Engineering  
Jeppiaar Institute of Technology  
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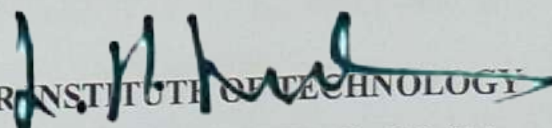
This project report is submitted for viva voce examination held on 22.09.2020



**Internal Examiner**



**External Examiner**



JEPPIAAR INSTITUTE OF TECHNOLOGY  
SRIPERUMBUDUR, CHENNAI - 631 604

**PRINCIPAL**  
JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604



**AN IOT BASED PATIENT MONITORING SYSTEM AND  
TEMPERATURE CONTROLLING SYSTEM**

**A PROJECT REPORT**

Submitted by

<b>SIVASUBRAMANIAN A</b>	<b>(210616104043)</b>
<b>JERALD VINFRANK J</b>	<b>(210616104023)</b>
<b>BHUVAN B NATESH</b>	<b>(210616104014)</b>
<b>LOKESH G</b>	<b>(210616104028)</b>

in the partial fulfillment for the award of the degree

of

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**ANNA UNIVERSITY :: CHENNAI 600025**

APRIL 2020

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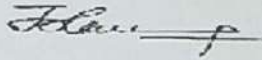
**PRINCIPAL**

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

ANNA UNIVERSITY::CHENNAI 600 025

**BONAFIDE CERTIFICATE**

Certified that this project report "AN IOT BASED PATIENT MONITORING SYSTEM AND TEMPERATURE CONTROLLING SYSTEM" is the bonafide work of "SIVASUBRAMANIAN A (210616104043), JERALD VINFRANK J (210616104023), BHUVAN B NATESH (210616104014), LOKESG G (210616104028)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr. J. FARITHA BANU., M.E., Ph.D.,**

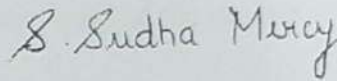
Professor

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**SIGNATURE**

**Ms. SUDHA MERCY S, M.E.,**

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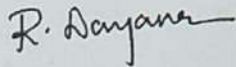
**SUPERVISOR**

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This project report is submitted for viva voce examination to be held on 22.09.2020



**Internal Examiner**



**External Examiner**

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**PRINCIPAL**  
**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
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# SMART PARKING SYSTEM

## A PROJECT REPORT

Submitted by

SARAVANAN M

(210616104041)

in the partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING



JEPPIAAR INSTITUTE OF TECHNOLOGY

ANNA UNIVERSITY :: CHENNAI 600025

APRIL 20

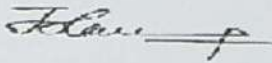
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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604

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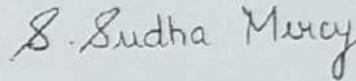
**BONAFIDE CERTIFICATE**

Certified that this project report "SMART PARKING SYSTEM" is the bonafide work of "SARAVANAN M (210616104041)" who carried out the project work under my supervision.



**SIGNATURE**

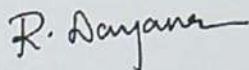
**Dr. J. FARITHA BANU., M.E., Ph.D.,**  
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This project report is submitted for viva voce examination to be held on 22.09.2020



**Internal Examiner**



**External Examiner**

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**SRIPERUMBUDUR, CHENNAI - 631 604**



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**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**

**SMART SURVEILLANCE SYSTEM USING  
DEEP LEARNING**

**A PROJECT REPORT**

*Submitted by*

**ARUNKUMAR P (210616104008)**  
**BALAJI P (210616104011)**  
**MOHAMED THAHIR A (210616104031)**

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

*of*

**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**



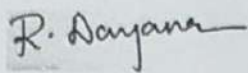
**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**ANNA UNIVERSITY, CHENNAI 600025**  
**JUNE 2020**

**PRINCIPAL**  
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**SRIPERUMBUDUR - 631604**

ANNA UNIVERSITY ::CHENNAI 600025

**BONAFIDE CERTIFICATE**

Certified that this project report "SMART SURVEILLANCE SYSTEM USING DEEP LEARNING" is the bonafide work of "ARUNKUMAR P (210616104008), BALAJI P (210616104011), MOHAMED THAHIR A (210616104031), who carried out the project work under my supervision.



**SIGNATURE**

**Mrs. R. DAYANA M.E.,**

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**SUPERVISOR**

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Sriperumbudur, Chennai.



**SIGNATURE**

**Dr. J. FARITHA BANU M.E., Ph.D.,**

Professor

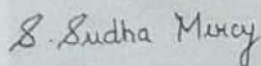
**HEAD OF THE DEPARTMENT**

Computer Science and Engineering

Jeppiaar Institute of Technology

Sriperumbudur, Chennai.

This project report is submitted for viva voce examination held on 22.09.2020



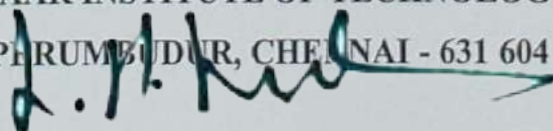
**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**SRIPERUMBUDUR, CHENNAI - 631 604**



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**KUNNAM, SUNGUVARCHATRAM**

**SRIPERUMBUDUR - 631604**

**STOCK ANALYSIS AND PREDICTION USING  
BIG DATA ANALYTICS**

**A PROJECT REPORT**

Submitted by

**CHITRALEKHA R S (210616104015)**

**PRIANKA R (210616104039)**

**PRIYANKA B (210616104040)**

in the partial fulfillment for the award of the degree

of

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**ANNA UNIVERSITY :: CHENNAI 600025**

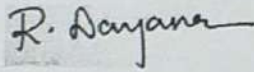
**APRIL 2020**

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**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

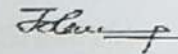
ANNA UNIVERSITY::CHENNAI 600 025  
BONAFIDE CERTIFICATE

Certified that this project report "STOCK ANALYSIS AND PREDICTION USING BIG DATA ANALYTICS " is the bonafide work of "CHITRALEKHA R S (210616104015), PRIANKA R (210616104039), PRIYANKA B (210616104040)" who carried out the project work under my supervision.



SIGNATURE

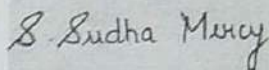
MRS. R. DAYANA, M.E.,  
Assistant Professor  
SUPERVISOR  
Computer Science and Engineering  
Jeppiaar Institute of Technology  
Sriperumbudur, Chennai.



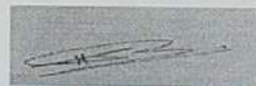
SIGNATURE

Dr. J. FARITHA BANU M.E., Ph.D.,  
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HEAD OF THE DEPARTMENT  
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This project report is submitted for viva voce examination held on 22.09.20202

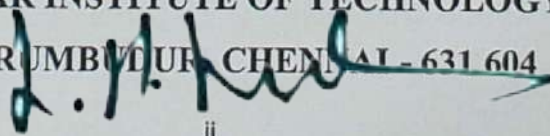


INTERNAL EXAMINER



EXTERNAL EXAMINER

JEPPIAAR INSTITUTE OF TECHNOLOGY  
SRIPERUMBUDUR, CHENNAI - 631 604



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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604



**THE IOT APPLICATION : SMART HOME AUTOMATION USING  
RASPBERRY PI**

**A PROJECT REPORT**

Submitted by

**ABIRAMI .B (210615104002)**

**DEVADHARSHINI .T (210615104016)**

**SONIYA.M (210616104044)**

in the partial fulfillment for the award of the degree  
of

**BACHELOR OF ENGINEERING**

**In**

**COMPUTER SCIENCE AND ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**ANNA UNIVERSITY :: CHENNAI 600025**

*J. N. K.* APRIL 2020

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

ANNA UNIVERSITY::CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "THE IOT APPLICATION: SMART HOME AUTOMATION USING RASPBERRYPI" is the bonofide work of "ABIRAMI.B(210616104002),DEVADHARSHINI.T(210616104016),SONIYA M(210616104044)" who carried out the project work under my supervision.

SIGNATURE

Mrs.SHINE,B.E,M.E.,

Assistant Professor

SUPERVISOR

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Dr.R.FARITHABANU,M.E., Ph.D.,

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HEAD OF THE DEPARTMENT

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Jeppiaar Institute Of Technology

Sriperumbudur, Chennai.

This project report is submitted for viva voice examination to be held on 22.09.2020

INTERNAL EXAMINER

EXTERNAL EXAMINER

PRINCIPAL

JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604

**DEMENTIA DETECTION FOR ELDERLY PEOPLE USING  
ROBOTIC PROCESS AUTOMATION**

**A PROJECT REPORT**

Submitted by

**PRANAV S**

**(210616104037)**

**MANISH KUMAR M**

**(210616104030)**

in the partial fulfillment for the award of the degree

of

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**ANNA UNIVERSITY: CHENNAI 600025**

SEPTEMBER 2020

*[Handwritten Signature]*

**PRINCIPAL**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

ANNA UNIVERSITY: CHENNAI 600 025

**BONAFIDE CERTIFICATE**

Certified that this project report "DEMENTIA DETECTION FOR ELDERLY PEOPLE USING ROBOTIC PROCESS AUTOMATION" is the bonafide work of "PRANAV S (210616104037), MANISH KUMAR M (210616104030)" who carried out the project work under my supervision.



**SIGNATURE**

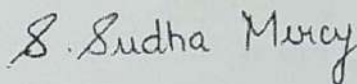
**Dr. J. FARITHA BANU, M.E., Ph.D.,**  
**HEAD OF THE DEPARTMENT**  
**Professor**  
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Jeppiaar Institute of Technology  
Sriperumbudur, Chennai.



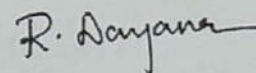
**SIGNATURE**

**Mr. SHINE H, B.Tech., M.Tech.,**  
**SUPERVISOR**  
**Assistant Professor**  
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Jeppiaar Institute of Technology  
Sriperumbudur, Chennai.

This project report is submitted for viva voce examination to be held on 22-09-2020

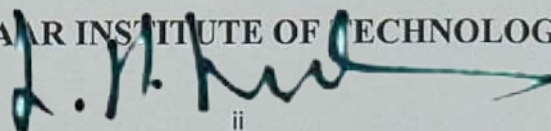


**Internal Examiner**



**External Examiner**

**JEPPIAAR INSTITUTE OF TECHNOLOGY**



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**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**

**DYNAMIC VM SCALING: PROVISIONING  
AND PRICING THROUGH AN ONLINE AUCTION**

**A PROJECT REPORT**

Submitted by

**SRINIVASAN R (210616104046)**

in the partial fulfillment for the award of the  
degree of

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**ANNA UNIVERSITY :: CHENNAI 600025**

**SEPTEMBER 2020**

**PRINCIPAL**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

ANNA UNIVERSITY::CHENNAI 600 025

**BONAFIDE CERTIFICATE**

Certified that this project report “**DYNAMIC VM SCALING: PROVISIONING AND PRICING THROUGH AN ONLINE AUCTION**” is the bonafide work of “**SRINIVASAN R (210616104046)**” who carried out the project work under my supervision.



**SIGNATURE**

**Mr. SHINE H, B.Tech., M.Tech**


Assistant Professor

**SUPERVISOR**

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**SIGNATURE**

**Dr. J. FARITHA BANU M.E., Ph.D.,**

Professor

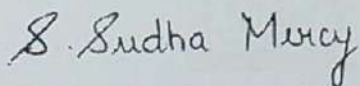
**HEAD OF THE DEPARTMENT**

Computer Science and Engineering

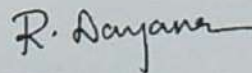
Jeppiaar Institute of Technology

Sriperumbudur, Chennai.

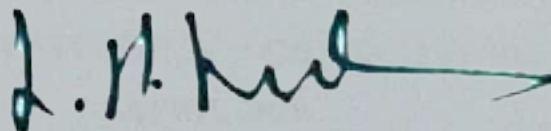
This project report is submitted for viva voce examination to be held on 22.09.2020



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



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**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**KUNNAM, SUNGUVARCHATRAM**

**SRIPERUMBUDUR - 631604**

**ECONOMICAL SMART FARMING**  
**A PROJECT REPORT**

Submitted by

**LOGESWARI J** (210616104027)

**DIVYALAKSHMI A** (210616104017)

**ASHA E** (210616104009)

in the partial fulfillment for the award of the degree

of

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**



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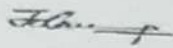
**ANNA UNIVERSITY :: CHENNAI 600025**

*[Signature]*  
APRIL 2020

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**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE

Certified that this project report "ECONOMICAL SMART FARMING" is the bonafide work of "LOGESWARI J(210616104027),DIVYALAKSHMI A (210616104017), ASHA E (210616104009)" who carried out the project work under my supervision.



SIGNATURE

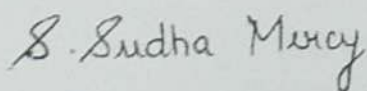
Dr. J. FARITHA BANU., M.E., Ph.D.,  
Professor  
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Jeppiaar Institute of Technology  
Sriperumbudur, Chennai.



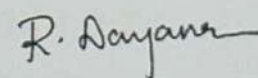
SIGNATURE

Mr. Shine H, M.Tech.,  
Assistant Professor  
SUPERVISOR  
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Sriperumbudur, Chennai.

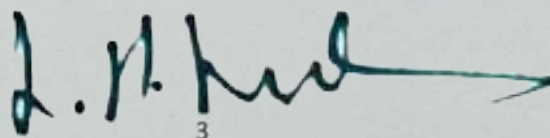
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Internal Examiner



External Examiner



PRINCIPAL  
JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604



FALL DETECTION WITH AMBULANCE SERVICE  
USING ANDRIOD

A PROJECT REPORT

Submitted by

KISHAN CHANDRA G (210616104026)

in the partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING



JEPPIAAR INSTITUTE OF TECHNOLOGY

ANNA UNIVERSITY:: CHENNAI 600025

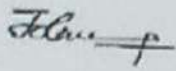
APRIL 2020

PRINCIPAL  
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SRIPERUMBUDUR - 631604

ANNA UNIVERSITY::CHENNAI 600 025

**BONAFIDE CERTIFICATE**

Certified that this project report "FALL DETECTION WITH AMBULANCE SERVICE USING ANDRIOD" is the bonafide work of "KISHAN CHANDRA G (210616104026)" who carried out the project work under my supervision.



**SIGNATURE**

**Dr. J. FARITHA BANU., M.E., Ph.D.,**

Professor

**HEAD OF THE DEPARTMENT**

Computer Science and Engineering

Jeppiaar Institute of Technology

Sriperumbudur, Chennai.



**SIGNATURE**

**Mr. H. SHINE M.Tech.**

Assistant Professor

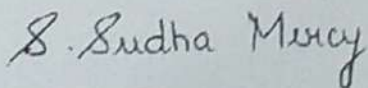
**SUPERVISOR**

Computer Science and Engineering

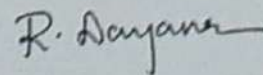
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Sriperumbudur, Chennai.

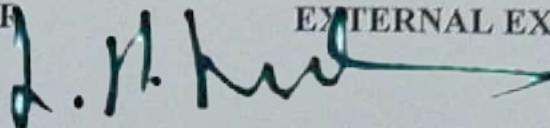
This project report is submitted for viva voce examination to be held on 22.09.2020



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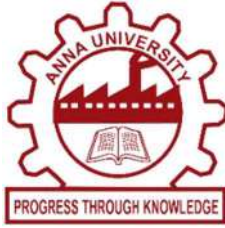


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**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**KUNNAM, SUNGUVARCHATRAM**

**SRIPERUMBUDUR - 631604**



# **ARDUINO BASED VEHICLE ENGAGING E-PORT ON RECHARGING STATION**

**A PROJECT REPORT**

*Submitted by*

**AHMED MOHAMMED J (210616105001)**

**NAGASUBRAMANI N (210616105023)**

**NAVEENKUMAR V (210616105025)**

**SANTHOSH KUMAR V (210616105039)**

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

**BACHELOR OF ENGINEERING**

*in*

**ELECTRICAL AND ELECTRONICS ENGINEERING**

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**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**

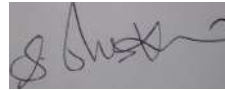
## BONAFIDE CERTIFICATE

We certify that this Project thesis titled, “**ARDUINO BASED VEHICLE ENGAGING E-PORT ON RECHARGING STATION**”, is the bonafide work of **AHMED MOHAMMED J (210616105001), NAGASUBRAMANI N (210616105023), NAVEENKUMAR V (210616105025), SANTHOSH KUMAR V (210616105039)** who carried out the project work under our supervision. We further certify that to the best of our 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 of this or any other candidate.



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SIGNATURE

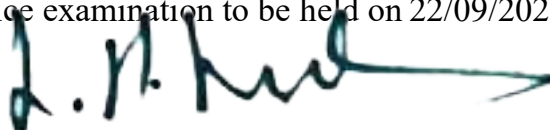
**Dr.T.MUTHUKUMARI M.E,Ph.D**  
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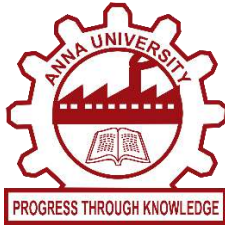
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Submitted for viva voice examination to be held on 22/09/2020.



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INTERNAL EXAMINER  
INTERNAL EXAMINER  
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# **DIFFERENT FAST CHARGING METHODS FOR ELECTRIC VEHICLE**

**A PROJECT REPORT**

*Submitted by*

**AMOS S (210616105002)**

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**PETER ROYI J (210616105028)**

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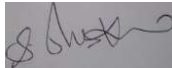
**ANNA UNIVERSITY: CHENNAI 600 025**

**APRIL 2020**

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE

We certify that this Project thesis titled, “**DIFFERENT FAST CHARGING METHODS FOR ELECTRIC VEHICLE**” is the bonafide work of **AMOS S (210616105002)** , **ARUN B (210616105003)** **ELAVARASAN S (210616105010)** & **PETER ROYI J (210616105028)** who carried out the project work under our supervision. We further certify that to the best of our 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 of this or any other candidate.



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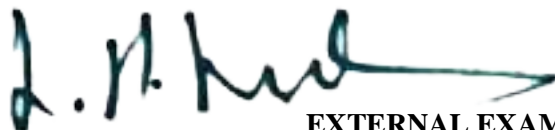


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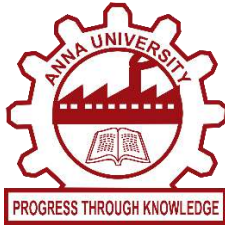
Submitted for viva voice examination to be held on 22/09/ 2020

INTERNAL EXAMINER



EXTERNAL EXAMINER

PRINCIPAL  
JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604



**POWER MANAGEMENT IN INTELLIGENT  
BUILDINGS BASED ON DAILY DEMAND PREDICTION  
USING ANDROID  
A PROJECT REPORT**

*Submitted by*

**ARUN PANDIYAN R (210616105004)**

**LALITH KUMAR R (210616105020)**

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## BONAFIDE CERTIFICATE

We certify that this Project thesis titled, **“POWER MANAGEMENT IN INTELLIGENT BUILDINGS BASED ON DAILY DEMAND PREDICTION USING ANDROID”**, is the bonafide work of **ARUN PANDIYAN R (210616105004), LALITH KUMAR R (210616105020), ROOPNATHA(210616105035), SANJAIKUMAR(210616105037)** who carried out the project work under our supervision. We further certify that to the best of our knowledge 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 of this or any other candidate.



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Submitted for viva voice examination to beheld on 22/09/2020.

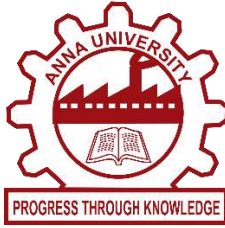
INTERNALEXAMINER



EXTERNALEXAMINER

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604





# **AUTOMATIC RAILWAY TRACK CLEANING SYSTEM USING ARDUINO.**

## **A PROJECT REPORT**

*Submitted by*

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**JAYARAJ J (210616105014)**

**NANDHA KUMAR P (210616105024)**

**NAVEEN KUMAR K (210616105026)**

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

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**ANNA UNIVERSITY: CHENNAI 600 025**

**APRIL 2022**

**KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE

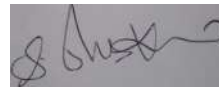
We certify that this Project thesis titled, “AUTOMATIC TRAIN TRACK CLEANING SYSTEM BY USING ARDUINO” is the bonafide work of **BHARATH B (210616105005)** , **JAYARAJ J (210616105014)** , **NANDHA KUMAR P (210616105024)** & **NAVEEN KUMAR K (210615105026)** who carried out the project work under our supervision. We further certify that to the best of our 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 of this or any other candidate.



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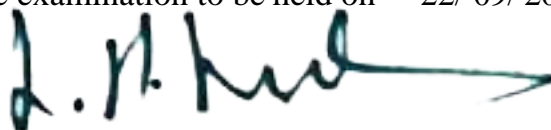


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**Mr.S.BASKARAN, M.E., Ph.D.,**  
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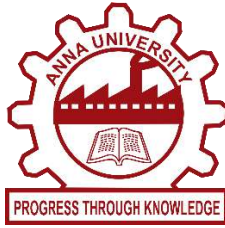


**EXTERNAL EXAMINER**

**PRINCIPAL**

**INTERNAL EXAMINER**

**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**



# SMART ANALYSIS OF MICRO GRID USING RENEWABLE ENERGY RESOURCES

A PROJECT REPORT

*Submitted by*

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DHARANI K (210616105007)

RAAGINI K (210616105031)

NANCY ASMITHA P A (210616105701)

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*[Signature]*  
**APRIL 2020**

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## BONAFIDE CERTIFICATE

We certify that this Project thesis titled, “SMART ANALYSIS OF MICROGRID USING RENEWABLE ENERGY RESOURCES”, is the bonafide work of **DEEPA R (210616105006), DHARANI K (210616105007), RAAGINI K (210616105031), NANCY ASMITHA P A (210616105701)** who carried out the project work under our supervision. We further certify that to the best of our 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 of this or any other candidate.

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SIGNATURE

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EXTERNALEXAMINER

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604



**BUILD-IN CULTIVATION**

**A PROJECT REPORT**

*Submitted by*

**DHESIKA. K (210616105008)**

**PADMASREE. B (210616105027)**

**SANGEETHA. A (210616105036)**

*in partial fulfillment for the award of the degree*

**of**

**BACHELOR OF ENGINEERING**

**in**

**ELECTRICAL AND ELECTRONICS ENGINEERING**

**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**CHENNAI -631604**

**ANNA UNIVERSITY: CHENNAI 600 025**

*[Signature]*  
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**KUNNAM, SUNGUVARCHATRAM**

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## BONAFIDE CERTIFICATE

Certified that this project report “**BUILD-IN CULTIVATION**” is the Bonafide work of “**DHESIKA. K (210616105008), PADMASREE. B(210616105017) , SANGEETHA. A(210616105036)**” who carried out the project work under my supervision.

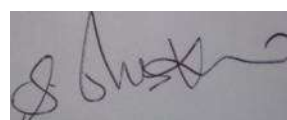


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**Mr. S. Baskaran., M.E., (Ph.D)**

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**Assistant Professor**

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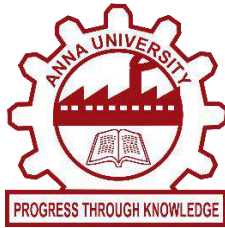
**Submitted for the viva-voce examination held on: 22.09.2020**



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**PRINCIPAL**  
**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**



# DESIGN AND FABRICATION OF SINGLE PHASE TO THREE PHASE AC-AC POWER FREQUENCY CONVERTER

A PROJECT REPORT

*Submitted by*

NAME OF THE CANDIDATE(S)

DINESH KUMAR S	210616105009
MOHAMMED IFRAZ C	210616105022
YUVARAJ K	210616105044
PRAVEEN KANNA P J	210616105030

*In partial fulfillment for the award of the degree*

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**BACHELOR OF ENGINEERING**

**IN**

**ELECTRICAL AND ELECTRONICS ENGINEERING**

  
JEPPIAAR INSTITUTE OF TECHNOLOGY

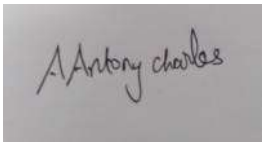
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ANNA UNIVERSITY: CHENNAI-60002  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604  
APRIL 2020

## BONAFIDE CERTIFICATE

Certified that this project report “**DESIGN AND FABRICATION OF SINGLE PHASE TO THREE PHASE AC-AC POWER FREQUENCY CONVERTER**” is the bonafide work of “**DINESH KUMAR S, MOHAMMED IFRAZ C, YUVARAJ K And PRAVEEN KANNA P J**” who carried out the project work under my supervision.



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Submitted for UNIVERSITY VIVA EXAMINATION held on 22.09.2020

INTERNAL EXAMINER



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JEPPIAAR INSTITUTE OF TECHNOLOGY  
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SRIPERUMBUDUR - 631604





# **TRAFFIC SIGNAL CONTROL SYSTEM USING ARDUINO BASED SPIKE SHAFT**

**A Project Report**

*Submitted by:*

**S. Gayathri (210616105011)  
Lakshmi Subramaniam (210616105019)  
M. Sowmiya (210616105041)  
R. Vivedha (210616105042)**

*In partial fulfillment for the award of the degree*

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## BONAFIDE CERTIFICATE

Certified that this Thesis titled “ **TRAFFIC SIGNAL CONTROL SYSTEM USING ARDUINO BASED SPIKE SHAFT** ” is the bonafide work of **S. Gayathri (210616105011)** , **Lakshmi Subramaniam (210616105019)** , **M. Sowmiya (210616105041)** , **R. Vivedha (210616105042)** who carried out the work under my supervision.



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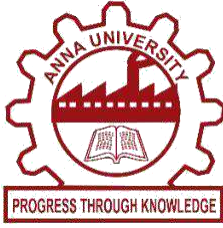


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**A PROJECT REPORT**

*Submitted by*

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**SANTHOSH KUMAR P (210616105301)**

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**CHENNAI**

**ANNA UNIVERSITY: CHENNAI 600 025**

**APRIL 2020**

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

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We certify that this Project thesis titled, “**PREDICTIVE ANALYSIS OF INDUCTION MOTOR**”, is the bonafide work of **HRISHIKESH V P (210616105012), KANAGASABAPATHI B (210616105016) & SANTHOSH KUMAR P (210616105301)** who carried out the project work under our supervision. We further certify that to the best of our 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 of this or any other candidate.

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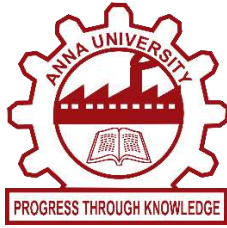
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**Dr. MUTHUKUMARI**  
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EEE,, Department of  
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Sriperumbudur, Chennai.

INTERNAL EXAMINER

EXTERNAL EXAMINER

PRINCIPAL  
ii  
JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604



# **DESIGN AND FABRICATION OF IOT BASED MULTI SENSOR FIRE FIGHTING ROBOT USING ARDUINO AND ESP8266 NODEMCU**

**A PROJECT REPORT**

*Submitted by*

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*In partial fulfillment for the award of the degree  
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**BACHELOR OF ENGINEERING**

*in*

**ELECTRICAL AND ELECTRONICS ENGINEERING**

**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**CHENNAI 601- 604**

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**APRIL 2020**

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**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

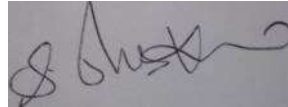
**BONAFIDE CERTIFICATE**

We certify that this Project thesis titled, “ **DESIGN AND FABRICATION OF IOT BASED MULTI SENSOR FIRE FIGHTING ROBOT USING ARDUINO AND ESP8266 NODEMCU** ”, is the bonafide work of **JAYACHANDRAN K (210616105013)** who carried out the project work under our supervision. We further certify that to the best of our 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 of this or any other candidate.



.....  
SIGNATURE

**Dr.T. Muthukumari, M.E., Ph.D.,**  
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**Mr. Baskaran S, M.E., (Ph.D)**  
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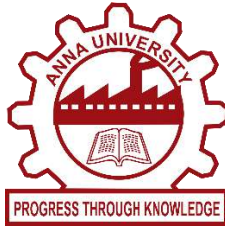
Submitted for viva voice examination to be held on 22/09/ 2019.



INTERNAL EXAMINER

EXTERNAL EXAMINER

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JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
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# **POWER GENERATION USING PIEZOELECTRIC TRANSDUCER AND VERTICAL AXIS WIND TURBINE**

**A PROJECT REPORT**

*Submitted by*

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**LOKESH P (210616105021)**

**SIVABALAN A (210616105040)**

**YOGWSWARAN T (210616105043)**

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

**BACHELOR OF ENGINEERING**

*in*

**ELECTRICAL AND ELECTRONICS ENGINEERING**

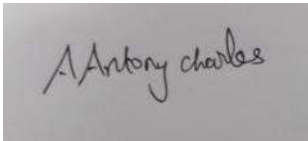
**JEPPIAAR INSTITUTE OF TECHNOLOGY  
CHENNAI**

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**KUNNAM, SUNGUVARCHATRAM**  
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**APRIL 2020**

## BONAFIDE CERTIFICATE

We certify that this Project thesis titled, **“POWER GENERATION USING PIEZOELECTRIC TRANSDUCER AND VERTICAL AXIS WIND TURBINE”**, is the bonafide work **JHONSON P (210616105015), LOKESH P (210616105021), SIVABALAN A (210616105040) & YOGESWARAN T (210616105043)** who carried out the project work under our supervision. We further certify that to the best of our 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 of this or any other candidate.



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Submitted for viva voice examination to be held on 22/09/ 2019.

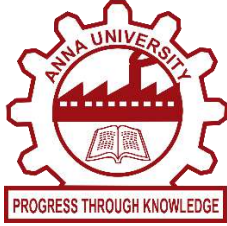


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# ANALYSIS OF SOLAR PV CELLS USING ARDUINO MICROCONTROLLER USING IOT

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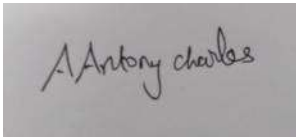
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**AUTOMATIC INTIMATION FOR TOXIC GAS FROM  
ROOM HEATER**

**A PROJECT REPORT**

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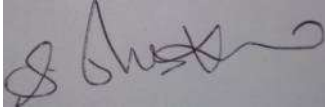
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## BONAFIDE CERTIFICATE

Certified that this project title “ **AUTOMATIC INTIAMTION FOR TOXIC DETECTION FROM ROOM HEATER** ” is the bonafide work of “**A.Keerthana (210616105018), T.Rathika (210616105033), S.Revathi (210616105034)** ” who carried out the work under my supervision . We certified further that to the best of my knowledge the work reported here in doesn't form part of any other thesis or dissertation on the basis of which a degree or award was conferred on a nearly occasion on this or any other candidate.



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**JEPPIAAR INSTITUTE OF TECHNOLOGY  
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SRIPERUMBUDUR - 631604**

**MY RIO BASED MOBILE ROBOT FOR  
RESCUE COMPETITION**

**A PROJECT REPORT**

*Submitted by*

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# “ELECTRONIC PASSENGER ALLOCATION DEVICE IN RAILWAYS”

## A PROJECT REPORT

*Submitted by*

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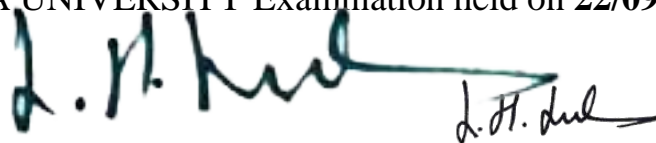
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# **GARBAGE MONITORING SYSTEM**

**A PROJECT REPORT**

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**VENKATESH PRASATH L (210616106091)**

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# **GUIDING AND CONTROLLING OF BOAT USING WIRELESS SYSTEM**

**A PROJECT REPORT**

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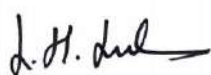
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**SEPTEMBER 2020**

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# **FOREST MONITORING AND ALERT SYSTEM**

**A PROJECT REPORT**

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**SEPTEMBER 2020**

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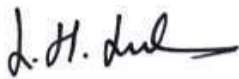
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**SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE

Certified that this project report titled “FOREST MONITORING AND ALERT SYSTEM” is the bonafide work of **HEMAPRIYA S T (210616106026)**, **SATHYA R (210616106074)**, **SWATHIKA G (210616106086)** who carried out the project work under my supervision.



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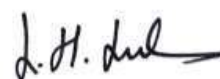
Submitted for university examination held on 22-09-2020 at Jeppiaar Institute of Technology, Chennai 631604.



**INTERNAL EXAMINER**



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**EXTERNAL EXAMINER**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

**DESIGNING A WSN NODE FOR PROTECTION OF FOREST TREES AGAINST  
POACHING**

**A PROJECT REPORT**

*Submitted by*

**LEENA S (210616106036)**

**ANUKARTHIKA K S (210616106003)**

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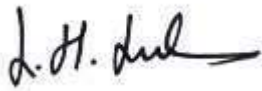
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Certified that this project report ” **DESIGNING A WSN NODE FOR PROTECTION OFFOREST TREES AGAINST POACHING**” is the bonafide work of **LEENA S(210616106036), ANUKARTHIKA K S(210616106003), REVATHI C(210616106064)** who carried out the project work under my supervision.



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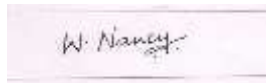
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**SMART STRETCHER AND INTEGRATED MEDICAL  
INTELLIGENCE SYSTEMS FOR UNCONSCIOUS PERSON**

**A PROJECT REPORT**

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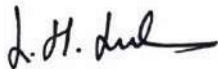
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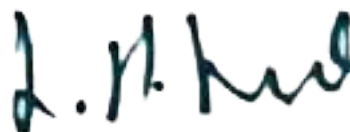
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JEPPIAAR INSTITUTE OF TECHNOLOGY  
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# **PATIENT HEALTH MONITORING SYSTEM USING ARDUINO**

A PROJECT REPORT

*Submitted by*

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**MEGALA DEVI .P.R (210616106041)**

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*in*

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CHENNAI**

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**SEPTEMBER 2020**

**PRINCIPAL**  
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**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**

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Submitted for university examination held on 22-09-2020 at Jeppiaar Institute of Technology, Chennai 631604.



INTERNAL EXAMINER



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JEPPIAAR INSTITUTE OF TECHNOLOGY  
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**DESIGN OF SUBSTRATE INTEGRATED SLOT  
ANTENNA FOR 5G COMMUNICATION**

**A PROJECT REPORT**

*Submitted by*

**PRAVEEN J (210616106052)**

**SURYA A (210616106084)**

**RAJASEKAR M (210616106059)**

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MARCH 2020**

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This is to certify that this project report titled “**DESIGN OF SUBSTRATE INTEGRATED SLOT ANTENNA FOR 5G COMMUNICATION**” is the bonafide work of “**PRAVEEN J (210616106052), SURYA A (210616106084), RAJASEKAR M(210616106059), SATHISH KUMAR V (210616106073)**, who carried out the project work under my supervision.


  
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# SMART BIKE FOR TRAFFIC POLICE ASSISTANCE

A PROJECT REPORT

*Submitted by*

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**HIRANMAIE A (210616106027)**

*In partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

**ELECTRONICS AND COMMUNICATION ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

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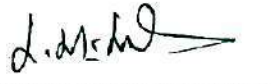
**SEP 2020**

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SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE

This is to Certify that this project report titled "SMART BIKE FOR TRAFFIC POLICE ASSISTANCE" is the Bonafide work of "MADHUMITHA B (210616106037), HIRANMAIE A (210616106027)" who carried out the project work under my supervision.



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**DESIGN OF MIMO ANTENNA FOR 5G  
COMMUNICATION**

**A PROJECT REPORT**

*Submitted by*

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**SAMSON A (210616106038)**

**MANOKARAN V (210616106039)**

**SIDHARTH S (210616106078)**

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## BONAFIDE CERTIFICATE

This is to Certify that this project report titled “**DESIGN OF MIMO ANTENNA FOR 5G COMMUNICATION**” is the bonafide work of “**SAMSON A (210616106010), SIDHARTH A (210616106038), MUGESHKUMAR M(210616106045), MANOKARAN V (210616106039)**, who carried out the project work under my supervision.

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# **ARDUINO BASED WEARABLE DEVICE FOR CHILD SAFETY**

**A PROJECT REPORT**

*Submitted by*

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## BONAFIDE CERTIFICATE

Certified that this project report “**ARDUINO BASED WEARABLE DEVICE FOR CHILD SAFETY**” is the bonafide work of “**GOWRI.M (210616106014), DIVYA PRIYADHARSHINI. R (210616106701), VISHALI.K (210616106095)**” who carried out the project work under my supervision.



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**DESIGN OF MULTIBAND MICROSTRIP PATCH  
ANTENNA FOR 5G COMMUNICATIONS**

**A PROJECT REPORT**

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*In partial fulfillment for award of the degree*

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Certified that this project report titled “**DESIGN OF MULTIBAND MICROSTRIP PATCH ANTENNA FOR 5G COMMUNICATIONS**” is the bona fide work of “**BHARANI DHARAN.S (210616106009)**”, who carried out the project work under my supervision.

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# ACCIDENT SEVERITY DETECTION USING IoT

A PROJECT REPORT

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**SEPTEMBER 2020**

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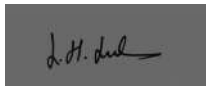
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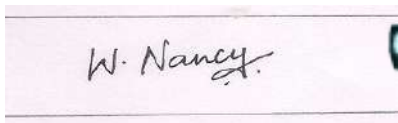
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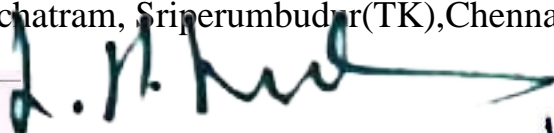
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# **GESTURE CONTROL ROBOT USING ARDUINO**

**A PROJECT REPORT**

*Submitted by*

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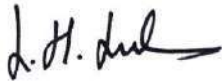
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**BONAFIDE CERTIFICATE**

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**COAL MINE SAFETY SYSTEM USING RASPBERRY PI**

**A PROJECT REPORT**

*Submitted by*

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**NAVEEN KUMAR.D (210616106046)**

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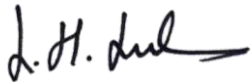
**SEPTEMBER 2020**

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SRIPERUMBUDUR - 631604**

**THE DEVELOPMENT OF A PEDESTRIAN  
NAVIGATION AID FOR VISUALLY CHALLENGED  
PERSONS**

A PROJECT REPORT

*submitted by*

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**KEERTHIKA E (210616106033)**

**KRITHIKA S (210616106035)**

**PRIYA DHARSHINI A (210616106055)**

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Certified that this project report “**THE DEVELOPMENT OF A PEDESTRIAN NAVIGATION AID FOR VISUALLY CHALLENGED PERSONS**” is the bonafide work of “**DHANALAKSHMI V (210616106011), KEERTHIKA E (210616106033), KRITHIKA S (210616106035), PRIYA DHARSHINI A (210616106055)**” who carried out the project work under my supervision.



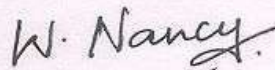
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**GSM BASED AUTOMATED PARALYZED PATIENT  
HEALTHCARE SYSTEM**

**A PROJECT REPORT**

Submitted by

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**PRISCILLA.X (210616106053)**

**VAISHNAVI.D (210616106089)**

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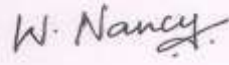
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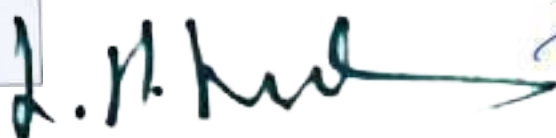
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# **CANCER LUMP DETECTION USING CONVOLUTION NEURAL NETWORK**

## **A PROJECT REPORT**

Submitted by

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**NIRANJAN. C B        210616106049**

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**SATHISH.R              210616106072**

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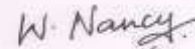
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**HEAD OF DEPARTMENT**

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**Mrs.W.NANCY,M.E.,(Ph.D.)**

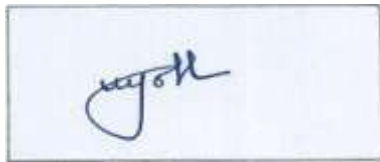
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# **WIRELESS ECG DETECTOR**

**A PROJECT REPORT**

*Submitted by*

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**NIKITHA T (210616106048)**

**SWETHA K (210616106087)**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

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Certified that this project report “**WIRELESS ECG DETECTOR**” is the bonafide work  
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**SWETHA K (210616106087)** who carried out the project work under my supervision.



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**PRINCIPAL**

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# INDOOR NAVIGATION USING VISIBLE LIGHT COMMUNICATION FOR BLIND PEOPLE

A PROJECT REPORT

Submitted by

HARI DEEPIKA B.P.L (210616106017)  
MONISHA R (210616106044)  
SAMBAVI S (210616106067)

*in partial fulfillment for the award of the degree*

*of*

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*in*

ELECTRONICS AND COMMUNICATION ENGINEERING



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SEPTEMBER 2020

PRINCIPAL

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## BONAFIDE CERTIFICATE

Certified that this project report “**INDOOR NAVIGATION USING VISIBLE LIGHT COMMUNICATION FOR BLIND PEOPLE**” is the bonafide work of **HARI DEEPIKA BPL(210616106017)**, **MONISHA R(210616106044)**, **SAMBAVI S(210616106067)**, who carried out the project work under my supervision.

**SIGNATURE**

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Submitted for university examination held on .....at Jeppiaar Institute of Technology, Chennai 631604.

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**



PRINCIPAL

JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604

# **WATER CONSERVATION AND TAPPING OF WATER USING HYDROCALC**

**A PROJECT REPORT**

*Submitted by*

**RIYAZUDDIN A (210616106066)**

**AGHILE A M (210616106001)**

**MOHAMED WASIM A H (210616106043)**

**KABIL S (210616106029)**

*In partial fulfilment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

**ELECTRONICS AND COMMUNICATION ENGINEERING**



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**SEPTEMBER 2020**  
**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE


Certified that this project report titled “WATER CONSERVATION AND TAPPING OF WATER USING HYDROCALC” is the bonafide work of RIYAZUDDIN A (210616106066), AGHILE A M (210616106001), MOHAMED WASIM A H (210616106043) and KABIL S (210616106029) who carried out the project work under my supervision.

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**Dr. L.M. MERLIN LIVINGSTON,  
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**PREDICTIVE ANALYSIS ON PROSPECTIVE  
CUSTOMER MARGIN**

**A PROJECT REPORT**

*Submitted by*

**Ramanathan AR**

*in partial fulfilment for the award of the degree*

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**BACHELOR OF ENGINEERING**

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**BONAFIDE CERTIFICATE**

Certified that this project report **“PREDICTIVE ANALYSIS ON PROSPECTIVE CUSTOMER MARGIN”** is the bonafide work of **“Ramanathan AR (210616106060)”** who carried out the project work under my supervision.



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**TEXT RECOGNITION IN IMAGE USING PYTHON**

**A PROJECT REPORT**

***Submitted by***

**SRIRAM R**

**DEVAPERUMAL M**

**SURYA PRAKASH J P**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

**ELECTRONICS AND COMMUNICATION ENGINEERING**



**JEPPIAAR INSTITUTE OF TECHNOLOGY, SRIPERUMBATHUR,  
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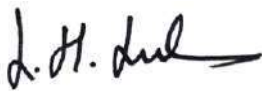
**SEPTEMBER 2020**

**PRINCIPAL  
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## BONAFIDE CERTIFICATE

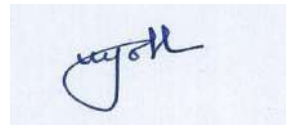
Certified that this project report “**TEXT RECOGNITION IN IMAGE USING PYTHON**” is the bonafide work of “**SRIRAM R (210616106082), DEVAPERUMAL M (210616106010) and SURYA PRAKASH J P (210616106085)**” who carried out the project work under my supervision.

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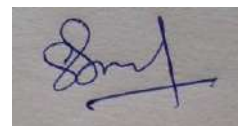


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**Dr. S.ARUL,  
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SRIPERUMBUDUR - 631604**

**“MODELLING OF RECTANGULAR GROOVE TO REDUCE FAR-END CROSS  
TALK IN MICROSTRIP LINES COVERED WITH A DIELECTRIC LAYER”**

***A PROJECT REPORT***

***Submitted by***

**SOWMIYA S (2106161060081)**

**PRIYADHARSHINI S (210615106054)**

**KAYATHRI S (210616106032)**

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

***BACHELOR OF ENGINEERING***

***in***

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***JEPPIAAR INSTITUTE OF TECHNOLOGY***

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**MARCH 2020**

**PRINCIPAL**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
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SRIPERUMBUDUR - 631604**

**BONAFIDE CERTIFICATE**

**Certified that this project report titled “ MODELLING OF RECTANGULAR GROOVE TO REDUCE FAR-END CROSSTALK IN MICROSTRIP LINES COVERED WITH A DIELECTRIC LAYER ” is the bonafide work of SOWMIYA S (210616106081), PRIYADHARSHINI S (201616106054), KAYATHRI S(210616106032) who carried out the project work under my supervision.**



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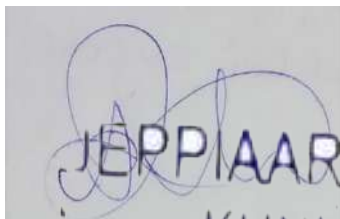


**SIGNATURE**

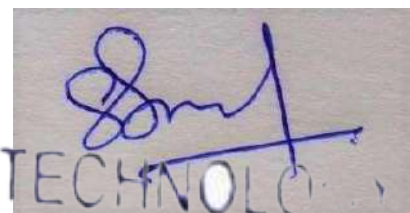
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**Submitted for university examination held on 22/09/2020 at Jeppiaar Institute of**

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**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

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A PROJECT REPORT

*Submitted by*

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**ARULMOZHIVARMAN C (210616106005)**

**JABEZ PAUL DAVID S I (210616106028)**

**RANJITH V (210616106062)**

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**ANNA UNIVERSITY: CHENNAI 600 025**

**PRINCIPAL**

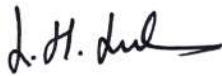
**SEPTEMBER 2020**

JEPPIAAR INSTITUTE OF TECHNOLOGY  
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**ANNA UNIVERSITY: CHENNAI 600 025**

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Certified that this project report **SEGMENTATIONAL TRANSMISSION LINE** is the bonafide work of **ASHIK ALI L (210616106006), ARULMOZHIVARMAN C (210616106005), JABEZ PAUL DAVID S I (210616106028) & RANJITH V (210616106062)** who carried out the project work under my supervision.



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SRIPERUMBUDUR - 631604**



**A SELF-POWERED WEARABLE IoT SENSOR  
NETWORK FOR HEALTH MONITORING BASED ON  
LORA**

**A PROJECT REPORT**

*Submitted by*

**VIGNESHWARAN.S (210616106093)**

**HARIHARAN.S (210616106019)**

**VIGNESH.P (210616106092)**

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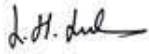
**ANNA UNIVERSITY:: CHENNAI 600 025**

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## BONAFIDE CERTIFICATE

Certified that this project report “A SELF-POWERED WEARABLE IoT SENSOR NETWORK FOR HEALTH MONITORING BASED ON LORA” is the bonafide work of VIGNESHWARAN.S (210616106093), HARIHARAN.S (210616106019), VIGNESH.P (210616106092) who carried out the project work under my supervision.



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**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

PRINCIPAL  
JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604

**IOT BASED UBIQUITOUS HEALTHCARE SYSTEM FOR  
MILITARY APPLICATION**

**A PROJECT REPORT**

*Submitted by*

**BETTY VEFELIN RAJ B (210616106008)**

**PRATHIPA K (210616106050)**

**SIVAKEERTHANA V (210616106079)**

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*of*

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**SUNGUVACHATRAM.**

**ANNA UNIVERSITY: CHENNAI 600 025**

**SEPTEMBER 2020**

**PRINCIPAL  
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Certified that this project report titled “**IOT BASED HEALTHCARE SYSTEM**” is the bonafide work of “**BETTY VEFELIN RAJ B (210616106008), PRATHIPA K (210616106050), SIVAKEERTHANA V (210616106079)**” who carried out the project work under my supervision.

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**Dr.L.M. MERLIN LIVINGSTON, M.E., Ph.D.,**

**HEAD OF DEPARTMENT**

Professor

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Jeppiaar Institute of Technology

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**Miss. R. RUBALA, M.E**

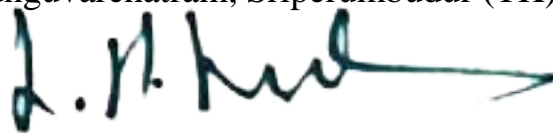
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Submitted for university examination held on 22<sup>nd</sup> September 2020 at Jeppiaar Institute of Technology, Sunguvarchatram, Sriperumbudur (TK), Chennai 631604.



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**SRIPERUMBUDUR - 631604**

# **IOT BASED GESTURE CONTROLLED SURVEILLANCE BOT**

**A PROJECT REPORT**

*Submitted by*

**AKHIL D GEORGE (210616106002)**

**HEMANTH RAAJ M (210616106025)**

**MOHAMED KAMEEL A.H (210616106042)**

**NAVEENKUMAR M (210616106047)**

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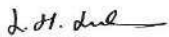
**SEPTEMBER 2020**

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Certified that this project report titled “IOT BASED GESTURE CONTROLLED SURVEILLANCE BOT” is the bonafide work of “AKHIL D GEORGE (210616106002), HEMANTH RAAJ M (210616106025), MOHAMED KAMEEL A.H (210616106042), NAVEENKUMAR M (210616106047) who carried out the project work under my supervision.



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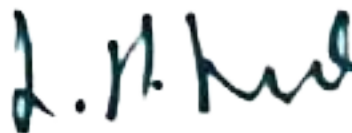
Department of ECE

Jeppiaar Institute of Technology

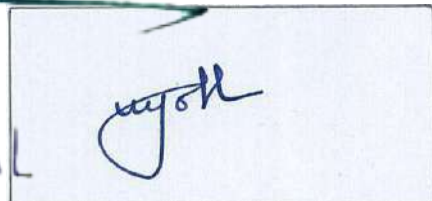
Submitted for university examination held on 22<sup>nd</sup> September 2020 at Jeppiaar Institute of Technology, Chennai 631604.



**INTERNAL EXAMINER**



**PRINCIPAL**



**EXTERNAL EXAMINER**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

**DESIGN OF LOW POWER AND HIGH SPEED  
RECURSIVE PARALLEL MULTIPLIER**

**A PROJECT REPORT**

*Submitted by*

**ELANCHEZIAN P.K (210616106012)**  
**HARIHARAN V (210616106020)**  
**RAVICHANDRAN R.S (210616106082)**  
**VASANTH KUMAR S (210616106090)**

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**ANNA UNIVERSITY: CHENNAI 600 025**  
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**SEPTEMBER 2020**

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Certified that this project report titled “**DESIGN OF LOW POWER AND HIGH SPEED RECURSIVE PARALLEL MULTIPLIER IN FPGA** ” is the bonafide work of **ELANCHEZIAN P K (210616106012), HARIHARAN V (210616106020), RAVICHANDRAN R S (210616106063), VASANTH KUMAR S (210616106090)** Who Carried out the project work under my supervision.

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**DESIGN OF 3X3 REVERSIBLE GATES USING  
COMBINATIONAL CIRCUITS**

**A PROJECT REPORT**

Submitted by

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**N.SUMANTHA(210616106083)**

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Certified that this project report titled “**DESIGN OF 3X3 REVERSIBLE GATE USING COMBINATIONAL CIRCUITS**” is the bonafide work of **N.SUMANTHA (210616106083), VISHNU PRIYA A(201616106097), S.PRIYANKA (210615106042)** who carried out the project work under my supervision.

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**PREPARATION AND INVESTIGATION ON TREATED AND  
UNTREATED SUGARCANE FIBRE REINFORCED WITH  
GLASS POWDER**

**A PROJECT REPORT**

*Submitted by*

<b>S.ASWIN</b>	<b>(210616114013)</b>
<b>P.DHINESH</b>	<b>(210616114021)</b>
<b>V.JAYA MURUGAN</b>	<b>(210616114302)</b>
<b>M. JERSON PAUL</b>	<b>(210616114029)</b>

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*Of*

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**IN**

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SRIPERUMBUDUR - 631604**

**APRIL-2020**

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Certified that this project report “**PREPARATION AND INVESTIGATION ON TREATED AND UNTREATED SUGARCANE FIBRE REINFORCED WITH GLASS POWDER**” is the bonafide work of “**S.ASWIN (210616114013), P.DHINESH (210616114021), V.JAYA MURUGAN (210616114302), M. JERSON PAUL (210616114029)**”, who carried out the project work under my supervision.



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Submitted for Anna University project Viva-Voce held on 22.09.2020



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**EXTERNAL EXAMINER**

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**DESIGN AND FABRICATION OF FIXTURE FOR CHAIN  
LINK FITUP IN GUILLOTINE GATE BLADE.**

**A PROJECT REPORT**

*Submitted by*

<b>SAKTHIVEL M</b>	<b>(210616114055)</b>
<b>WASIM AKRAM M</b>	<b>(210616114082)</b>
<b>MOHAMED IBRAHIM T</b>	<b>(210616114042)</b>
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**MARCH 2020**  
**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
**SRIPERUMBUDUR - 631604**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**DESIGN AND FABRICATION OF FIXTURE FOR CHAIN LINK FITUP IN GUILLOTINE GATE BLADE**” is the bonafide work of “**SAKTHIVEL M, WASIM AKRAM M, MOHAMED IBRAHIM T, RATHEES PREM R**” who carried out the project work under my supervision.



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**Mr.S.Arun, M.E., (Ph.D)**

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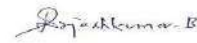
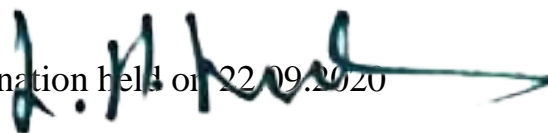
Kunnam, Sunguvarchatram,

Kunnam, Sunguvarchatram,

Sriperumbudur. 631604.

Sriperumbudur. 631604.

Submitted for the Examination held on 22.09.2020



**PRINCIPAL**

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**



**INVESTIGATION OF SURFACE TEXTURE  
PROPERTIES OF LASER SINTERED COBALT  
CHROMIUM ALLOY**

**A PROJECT REPORT**

*Submitted by*

<b>LOURDU ANTONY A</b>	<b>(210616114037)</b>
<b>RISHI KARTHIK S</b>	<b>(210616114052)</b>
<b>SANTHOSH SIVAN M</b>	<b>(210616114058)</b>
<b>VIJAY S</b>	<b>(210616114079)</b>

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**BACHELOR OF ENGINEERING**  
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**ANNA UNIVERSITY: CHENNAI 600 025**

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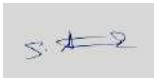
**APRIL 2020**

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**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**Investigation of Surface Texture Properties of Laser Sintered Cobalt Chromium Alloy**” is the bonafide work of “**LOURDU ANTONY A, RISHI KARTHIK S, SANTHOSH SIVAN M, VIJAY S**” who carried out the project work under my supervision.



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**COMBINED EFFECT OF COMPRESSION RATIO  
AND EGR ON COMBUSTION, PERFORMANCE AND  
EMISSION CHARACTERISTICS OF A CRDI DIESEL  
ENGINE FUELLED WITH SAPOTA METHYL ESTER-  
DIESEL BLEND**

**A PROJECT REPORT**

*Submitted by*

<b>M GOPINATH</b>	<b>(210616114025)</b>
<b>P JUPISTER</b>	<b>(210616114030)</b>
<b>G SARAVANAN</b>	<b>(210616114060)</b>
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**SRIPERUMBUDUR, CHENNAI: 631 604**

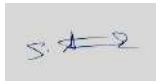
**SEPTEMBER 2020**

**PRINCIPAL**  
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**BONAFIDE CERTIFICATE**

Certified that this project report “COMBINED EFFECT OF COMPRESSION RATIO AND EGR ON COMBUSTION, PERFORMANCE AND EMISSION CHARACTERISTICS OF A CRDI DIESEL ENGINE FUELLED WITH SAPOTA METHYL ESTER-DIESEL BLEND” is the bonafide work of “M.GOPINATH (210616114025), P.JUISTER (210616114030), G.SARAVANAN (210616114060) and S.VENKATESH (210616114076)” who carried out the project work under my supervision.



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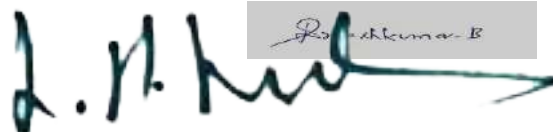
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# EXPERIMENTAL INVESTIGATION OF DOUBLE SLOPE SOLAR STILL USING THREE WAY REFLECTORS

A PROJECT REPORT

*Submitted by*

ANURAGH KUMAR JAISWAL J (210616114008)  
BENIEL C (210616114015)  
KUMAR B (210616114032)  
SURIYA NARAYANAN C P (210616114070)

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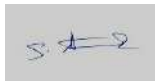
MARCH 2020

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**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**EXPERIMENTAL INVESTIGATION OF DOUBLE SLOPE SOLAR STILL USING THREE WAY REFLECTOR**” is the bonafide work of “ANURAGH KUMAR JAISWAL J (210616114008), BENIEL C (210616114015), KUMAR B (210616114032), SURIYA NARAYANAN C P (210616114070)” who carried out the project work under my supervision.



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**Mr.MUKILARASAN N, M.E.,Ph.D.,**

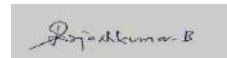
**SUPERVISOR**

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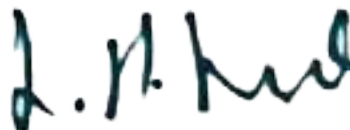
Submitted for the Examination held on 22.09.2020



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



**PRINCIPAL**  
**JEPPIAAR INSTITUTE OF TECHNOLOGY**  
**KUNNAM, SUNGUVARCHATRAM**  
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**PERFORMANCE, COMBUSTION AND EMISSION  
CHARACTERISTICS OF DIESEL  
ENGINE FUELED WITH PAPAYA SEED BIO-DIESEL**

**A PROJECT REPORT**

*Submitted by*

**ARAVIND VENKATESH K (210616114009)**

**ARVIN SAM B R (210616114014)**

**DIWAKAR N (210616114024)**

**RAJ KUMAR M (210616114049)**

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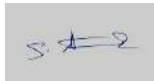
**MARCH 2020**

**ANNA UNIVERSITY: CHENNAI 600 025**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE

Certified that this project report “**PERFORMANCE, COMBUSTION AND EMISSION CHARACTERISTICS OF DIESEL ENGINE FUELED WITH PAPAYA SEED BIO-DIESEL**” is the bonafide work of “**ARAVIND VENKATESH K (210616114009), ARVIN SAM B R (210616114014), DIWAKAR N (210616114024), RAJ KUMAR M (210616114049)**” who carried out the project work under my supervision.



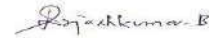
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Submitted for the Examination held on 22.09.2020



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**EXTERNAL EXAMINER**



**PRINCIPAL**

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**



# PERFORMANCE AND EMISSION ANALYSIS OF IC ENGINE USING DATES SEED OIL

A PROJECT REPORT

*Submitted by*

ALANGARA RUBES S	(210616114007)
PALANI R	(210616114045)
SUBIKSHON JOY R	(210616114067)
VEERA SURYA T	(210616114073)

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JEPPIAAR INSTITUTE OF TECHNOLOGY, CHENNAI 631 604

ANNA UNIVERSITY: CHENNAI 600 025

PRINCIPAL

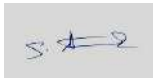
MARCH 2020

JEPPIAAR INSTITUTE OF TECHNOLOGY  
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SRIPERUMBUDUR - 631604

**ANNA UNIVERSITY : CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**PERFORMANCE AND EMISSION ANALYSIS OF IC ENGINE USING DATES SEED OIL**” is the bonafide work of “ALANGARA RUBES (210616114007), PALANI R (210616114045), SUBIKSHON JOY R (210616114067), VEERA SURYA T (210616114073)” who carried out the project work under my supervision.



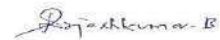
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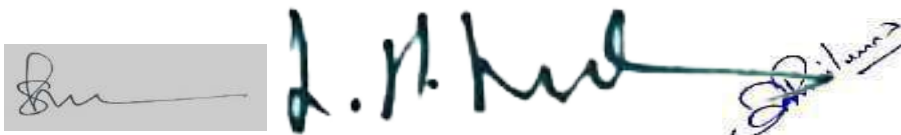
**Dr. RAJESH KUMAR B, Ph.D.,**

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Submitted for the Examination held on 22.09.2020



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**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**





**COMBUSTION, PERFORMANCE AND EMISSION  
CHARACTERISTICS OF A DIESEL ENGINE  
USING SOYBEAN BIO-DIESEL**

A PROJECT REPORT

*Submitted by*

<b>Abishek W</b>	<b>(210616114003)</b>
<b>Ajay Daniel J</b>	<b>(210616114005)</b>
<b>Raja Ganesh M</b>	<b>(210616114047)</b>
<b>Sarath S</b>	<b>(210616114059)</b>

*In partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

**MECHANICAL ENGINEERING**

**JEPPIAAR INSTITUTE OF TECHNOLOGY, CHENNAI 631 604**

**ANNA UNIVERSITY, CHENNAI 600 025**

**MARCH 2020**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report **“COMBUSTION, PERFORMANCE AND EMISSION CHARACTERISTICS OF A DIESEL ENGINE USING BIO-DIESEL”** is the bonafide work of “Abishek W (210616114003), Ajay Daniel J (210616114005), Raja Ganesh M (210616114047), Sarath S (210616114059)” who carried out the project work under my supervision.



**SIGNATURE**

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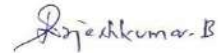
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Submitted for the Examination held on 22.09.2020



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**SRIPERUMBUDUR - 631604**



# DESIGN, ANALYSIS AND OPTIMIZATION OF ATV ROLL CAGE

A PROJECT REPORT

*Submitted by*

SATHEESH S	(210616114062)
ABINESH G	(210616114002)
LOGAVIGNESH S P	(210616114036)

*In partial fulfilment for the award of the degree*

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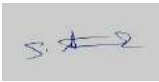
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APRIL 2020  
KUNNAM, SUNGUVARCHATRAM  
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**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**Design, Analysis and Optimization of ATV Roll cage**” is the bonafide work of **SATHEESH S (210616114062), ABINESH G (210616114002), LOGA VIGNESH S P (201616114036)** who carried out the project work under my supervision.



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**Mr.S.Arun, M.E.,**

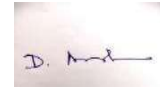
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SRIPERUMBUDUR - 631604**



# **HOT AND COLD REFRIGERATOR**

**A PROJECT REPORT**

*Submitted by*  
**ARAVIND KRISHNA K (210616114012)**

*In partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

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**ANNA UNIVERSITY:: CHENNAI 600 025**

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SRIPERUMBUDUR - 631604**

## BONAFIDE CERTIFICATE

Certified that this project report “HOT AND COLD REFRIGERATOR” is the bonafide work of **ARAVIND KRISHNA K (210616114012)** who carried out the project work under my supervision.



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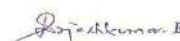
Mechanical Engineering

Jeppiaar Institute of Technology, Kunnam,  
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Submitted for the Examination held on 22.09.2020



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



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# DESIGN AND ANALYSIS OF COMPLEX VERTICAL AXIS WIND TURBINE (VAWT) BY USING CFD ANALYSIS

A PROJECT REPORT

*Submitted by*

**CHAUDHARY VARUN M** (210616114017)  
**DANIEL RICHARDS A** (210616114018)  
**P SAI SURYA** (210616114054)

*In partial fulfilment for the award of the degree*

*of*

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*in*

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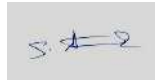
JUNE 202

KUNNAM, SUNGUVARCHATRAM

SRIPERUMBUDUR - 631604

## BONAFIDE CERTIFICATE

Certified that this project report “**DESIGN AND ANALYSIS OF COMPLEX VERTICAL AXIS WIND TURBINE (VAWT) BY USING CFD ANALYSIS**” is the Bonafide work of “**CHAUDHARY VARUN M (210616114017) , DANIEL RICHARDS A (210616114018) and P SAI SURYA (210616114054)**” who carried out the project work under my supervision.



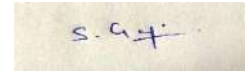
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Submitted for the Examination held on 22.09.2020



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# **DIGITALIZATION ON EMS HANGER TRACEABILITY**

**A PROJECT REPORT**

*Submitted by*

**SHANTHOSH K R**

**(210616114063)**

*In partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

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*at*

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**ANNA UNIVERSITY: CHENNAI 600 025**

**APRIL 2020**

**PRINCIPAL**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

# ANNA UNIVERSITY: CHENNAI 600 025

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Certified that this project report “**DIGITALIZATION ON EMS HANGER TRACEABILITY**” is the bonafide work of “**SHANTHOSH K R**” who carried out the project work under my direct supervision in “**HYUNDAI MOTORS INDIA LIMITED**”.



**SIGNATURE**

**Mr. S. ARUN**

**Head of the Department**

**Department of Mechanical Engineering**

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**Chennai - 631604**



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**Mr. D. ARUN KUMAR**

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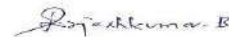
**Jeppiaar institute of Technology**

**Chennai - 631604**

Submitted for the Examination held on 22.09.2020



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



**PRINCIPAL**

**JEPPIAAR INSTITUTE OF TECHNOLOGY**

**KUNNAM, SUNGUVARCHATRAM**

**SRIPERUMBUDUR - 631604**



# **B1.ANALYSIS OF STIR CAST ALUMINIUM SILICON METAL COMPOSITE USING ZINC COATING**

**A PROJECT REPORT**

*Submitted by*

<b>BIJILIN ROY C</b>	<b>(210616114016)</b>
<b>GOWTHAM T</b>	<b>(210616114014)</b>
<b>RAXSHITJ JESSO D</b>	<b>(210616114024)</b>
<b>SUBIL S</b>	<b>(210616114049)</b>

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

**MECHANICAL ENGINEERING**

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**MARCH 2020**

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**BONAFIDE CERTIFICATE**

Certified that this project report “ANALYSIS OF STIR CAST ALUMINIUM SILICON METAL COMPOSITE USING ZINC COATING” is the bonafide work of “BIJILIN ROY C (210616114016), GOWTHAM T (210616114026), RAXSHITH JESSO D (210616114051), SUBIL S (210616114049)” who carried out the project work under my supervision.



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**ANALYSIS OF THE MECHANICAL PROPERTIES AND  
MICROSTRUCTURE OF Al-SiC METAL MATRIX COMPOSITE (MMC) BY  
GTAW AND GMAW WELDING OPERATIONS**

**A PROJECT REPORT**

*Submitted by*

<b>S. MADESHWARAN</b>	<b>(210616114038)</b>
<b>D.YUGANDRAN</b>	<b>(210616114083)</b>
<b>K. PRASANTH</b>	<b>(210616114046)</b>
<b>J. SARVESHWARAN</b>	<b>(210616114061)</b>

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**BONAFIDE CERTIFICATE**

Certified that this project report “**Analysis of the Mechanical properties and microstructure of Al-SiC Metal Matrix Composite (MMC) by GTAW and GMAW welding operations**” is the bonafide work of “**S.MADESHWARAN, D.YUGANDRAN, K.PRASANTH & J.SARVESHWARAN**” who carried out the project work under my supervision.



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**Fabrication and composite testing of hybrid metal matrix  
composite (AlTiO<sub>2</sub>)**

**A PROJECT REPORT**

*Submitted by*

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<b>S. Ajay kumar</b>	<b>(210616114301)</b>
<b>M. Rathana kumar</b>	<b>(210616114050)</b>
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SRIPERUMBUDUR - 631604

# ANNA UNIVERSITY : CHENNAI 600 025

## BONAFIDE CERTIFICATE

Certified that this project report “**FABRICATION AND COMPOSITE TESTING OF HYBRID METAL MATRIX COMPOSITE(AITiO2)**” is the bonafide work of “**M.S. Niranjank kumar, S. Ajay kumar, M. Rathana kumar, S. Aravind**” who carried out the project work under my supervision.



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Submitted for the Examination held on 22.09.2020



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JEPPIAAR INSTITUTE OF TECHNOLOGY

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

KUNNAM, SUNGUVARCHATRAM

SRIPERUMBUDUR - 631604





**CHARACTERIZATION OF HYBRID POLYMER  
MATRIX COMPOSITE IN AUTOMOBILE  
APPLICATION**

**A PROJECT REPORT**

*Submitted by*

<b>KARTHICK M</b>	<b>(210616114032)</b>
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<b>SANJAY KUMAR S</b>	<b>(210616114057)</b>
<b>E.SOLOMON VINCENT RAJ</b>	<b>(210616114068)</b>

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**MARCH 2020**  
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**SRIPERUMBUDUR - 631604**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**CHARACTERIZATION OF HYBRID POLYMER MATRIX COMPOSITE IN AUTOMOBILE APPLICATIONS**” is the bonafide work of “**KARTHICK M, SOLOMON VINCENT RAJ E, JANARTHANAN K, SANJAY KUMAR S**” who carried out the project work under my supervision.



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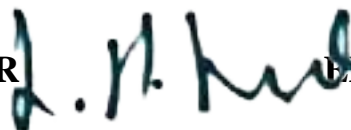
Submitted for the Examination held on 22.09.2020



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



**PRINCIPAL**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
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# **CLIMBING WHEELCHAIR WITH TO AND FRO ACTION OF STEERING MECHANISM**

**A PROJECT REPORT**

***Submitted by***

<b>DEEPAK RAJ.V</b>	<b>(210616114019)</b>
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<b>SUNDARA PANDIYAN.K</b>	<b>(210616114069)</b>
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**SRIPERUMBUDUR - 631604**

**ANNA UNIVERSITY: CHENNAI 600025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**CLIMBING WHEELCHAIR WITH TO AND FRO ACTION OF STEERING MECHANISM**” is the bonafide work of “ **DEEPAKRAJ.V, KARTHICK.N, SUNDARA PANDIYAN. K, VENGATA KRISHNAN .R** ” who carried out the project work under my supervision.



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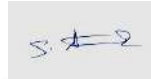
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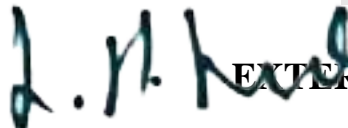
Submitted for the Examination held on 22.09.2020



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



**PRINCIPAL**

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SRIPERUMBUDUR - 631604**



**EFFECT OF PROCESS PARAMETER ON  
MECHANICAL PROPERTIES OF Co-Cr PRODUCED  
BY DMLS**

**A PROJECT REPORT**

*Submitted by*

<b>HARIVIGNESH N</b>	<b>(210616114027)</b>
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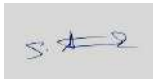
**MARCH 2020**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report **“EFFECT OF PROCESS PARAMETER ON MECHANICAL PROPERTIES OF Co-Cr PRODUCED BY DMLS”** is the bonafide work of **“HARIVIGNESH N, MANOJ KUMAR K U, MUTHU A, VISHVESH S”** who carried out the project work under my supervision.




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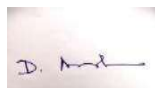
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**EXPERIMENTAL STUDY ON COMBUSTION,  
PERFORMANCE AND EMISSION CHARACTERISTICS OF  
SAPOTA BIODIESEL /ACETYLENE DUAL-FUEL IN A CRDI  
DIESEL ENGINE**

**A PROJECT REPORT**

*Submitted by*

<b>DHAMODHIRAN R</b>	<b>(210616114020)</b>
<b>MEGANATHAN R</b>	<b>(210616114041)</b>
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Certified that this project report “**EXPERIMENTAL STUDY ON COMBUSTION, PERFORMANCE AND EMISSION CHARACTERISTICS OF SAPOTA BIODIESEL/ACETYLENE DUAL-FUEL IN A CRDI DIESEL ENGINE**” is the bonafide work of “**R.DHAMODHIRAN (210616114020), R.MEGANATHAN (210616114041), R.RAJESHKANNA (210616114048) and A.VENKADESH (210616114075)**” who carried out the project work under my supervision.



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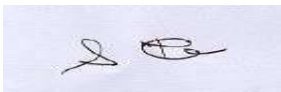
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Submitted for the Examination held on 22.09.2020



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# DESIGN ANALYSIS OF LAND SURVEYING ROBOT USING ARDUINO UNO

A PROJECT REPORT

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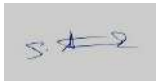
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**BONAFIDE CERTIFICATE**

Certified that this project report "**DESIGN ANALYSIS OF LANDSURVEYING ROBOT USING ARDUINO UNO**" is the bonafide work of **VIMAL D, VIGNESH D, DINESHKUMAR R, DINESHKUMAR K** who carried out the project work under my supervision.

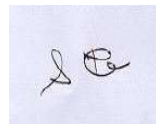


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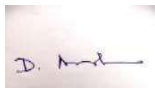
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# **STUDY OF ROLLING WEAR ON NATURAL RUBBER COMPOSITE MATERIAL**

**A PROJECT REPORT**

*Submitted by*

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<b>Rupeshkumar U</b>	<b>(210616114053)</b>
<b>Stephin M</b>	<b>(210616114065)</b>
<b>Subash S</b>	<b>(210616114066)</b>

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**ANNA UNIVERSITY : CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**STUDY OF ROLLING WEAR ON NATURAL RUBBER COMPOSITE MATERIALS**” is the bonafide work of “**ARUN D (210616114010), RUPESHKUMAR U (210616114053), STEPHIN M (210616114065), SUBASH S (210616114066)**” who carried out the project work under my supervision.



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**PRINCIPAL**

**EXTERNAL EXAMINER**

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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604**



**AUTOMATION IN GRINDING PROCESS TO REDUCE  
MANUFACTURING COST  
A PROJECT REPORT**

*Submitted by*

**AKEESHRAJ M (210616114006)**  
**VIBIN A (210616114077)**  
**UDHAY SANKAR T V (210616114072)**  
**AHIN J (210616114004)**

*In partial fulfillment for the award of the degree*

*of*

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*in*

**MECHANICAL ENGINEERING**

**JEPPIAAR INSTITUTE OF TECHNOLOGY, CHENNAI 631 604**

**ANNA UNIVERSITY:: CHENNAI 600 025**

**APRIL 2020**

**PRINCIPAL**

**JEPPIAAR INSTITUTE OF TECHNOLOGY  
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SRIPERUMBUDUR - 631604**

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Certified that this project report “AUTOMATION IN GRINDING PROCESS TO REDUCE MANUFACTURING COST is the bonafide work of “AKEESHRAJ M (210616114004), VIBIN A (210616114077), UDHAYSANKAR T V(210616114072), AHIN J (210616114006) who carried out the project work under my supervision.



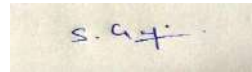
**SIGNATURE**

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**Mr.S.Gejendhiran, M.E.,**

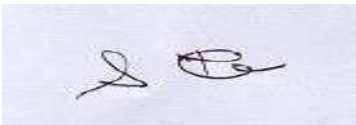
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PRINCIPAL  
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# DESIGN AND ANALYSIS OF WIND MILL USING VERTICAL TURBINE

A PROJECT REPORT

*Submitted by*

TAMILARASAN J

210616114071

*in partial fulfillment for the award of the degree*

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BACHELOR OF ENGINEERING

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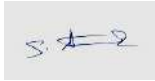
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KUNNAM, SUNGUVARCHATRAM  
SRIPERUMBUDUR - 631604

## BONAFIDE CERTIFICATE

Certified that this project report “DESIGN AND ANALYSIS OF WIND MILL USING VERTICAL TURBINE” is the bonafide work of TAMILARASAN J (210616114071) who carried out the project work under my supervision.



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Submitted for the Examination held on 22.09.2020



**INTERNAL EXAMINER**



**PRINCIPAL**

**EXTERNAL EXAMINER**

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**DISTRIBUTED DIGITAL LEDGER WITH  
ASCERTAINABLE PRIVACY USING MACHINE  
LEARNING**

**A PROJECT REPORT**

*Submitted by*

**ABIRAMI.K (210616205001)**

**MAHALAKSHMI.R (210616205027)**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF TECHNOLOGY**

*in*

**INFORMATION TECHNOLOGY**



**JEPPIAAR INSTITUTE OF TECHNOLOGY, SRIPERUMBUDUR**

**ANNA UNIVERSITY: CHENNAI 600 025**

**SEPTEMBER 2020**


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**BONAFIDE CERTIFICATE**

Certified that this project report "DISTRIBUTED DIGITAL LEDGER WITH ASCERTAINABLE PRIVACY USING MACHINE LEARNING" is the bonafide work of "ABIRAMLK (210616205001), MAHALAKSHMLR(210616205027)" who carried out the project work under my Supervision.



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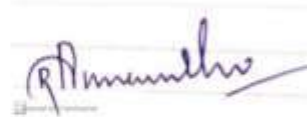
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PRINCIPAL  
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**DETECTION OF TRUTH IN SOCIAL MEDIA USING  
POLYMERIZATION SENTIMENTAL MODEL**

**A PROJECT REPORT**

*Submitted by*

**NANDINI DEVI T (210616205032)**

**HARINI S (210616205015)**

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**BONAFIDE CERTIFICATE**

Certified that this project report "DETECTION OF TRUTH IN SOCIAL MEDIA USING POLYMERIZATION SENTIMENTAL MODEL" is the bonafide work of "NANDINI DEVI T (210616205032), HARINI S (210616205015)" who carried out the project work under my Supervision.



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**SRIPERUMBUDUR - 631604**

**DEEP LEARNING BASED AI SYSTEM WITH FACE  
DETECTION AND RECOGNITION SYSTEM FOR  
ONLINE ATTENDANCE AND EMAIL ALERT  
SYSTEM**

**A PROJECT REPORT**

Submitted by

ESAIKANI L (210616205012)

JYOTHI LAKSHMI K (210616205019)

ILLAKIYA G (210616205017)

in partial fulfillment for the award of the degree

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**BONAFIDE CERTIFICATE**

Certified that this project report "DEEP LEARNING BASED AI SYSTEM WITH FACE DETECTION AND RECOGNITION SYSTEM FOR ONLINE ATTENDANCE AND EMAIL ALERT SYSTEM" is the bonafide work for "ESAIKANI L (210616205012), JYOTHI LAKSHMI.K(210616205019), ILLAKIYA G(210616205017)" who carried out the project work under my Supervision.



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Ms. DAYA MARY MATHEW B.E.,M.E.(Phd)

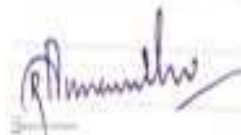
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**REDUCING THE INTENSITY OF LIGHT IN SMART  
STREET LIGHTING SYSTEM USING INTERNET OF  
THINGS (IOT)**

**A PROJECT REPORT**

*Submitted by*

**MONISHA.K (210616205031)**

**ROHINI PRIYA.P (210616205042)**

**MAHALAKSHMI.M.J (210616205026)**

*in partial fulfillment for the award of the degree*

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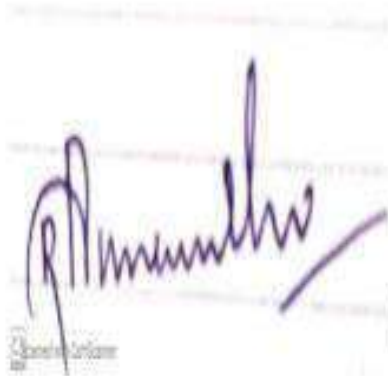
**SEPTEMBER 2020**

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Certified that this project report "REDUCING THE INTENSITY OF LIGHT IN SMART STREET LIGHTNING SYSTEM USING INTERNET OF THINGS (IOT)" is the bonafide work of "MONISHA.K (210616205031), ROHINI PRIYA.P (210616205042), MAHALAKSHMI.M.J (210616205026)" who carried out the project work under my Supervision.



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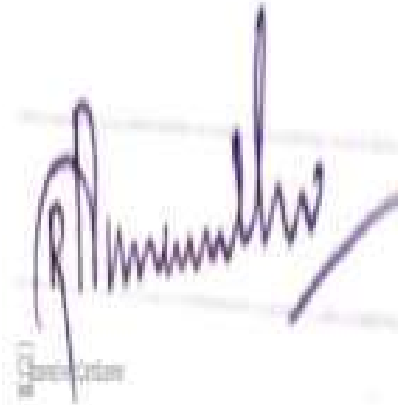
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# SMART CANE FOR VISUALLY IMPAIRED USING IOT

## A PROJECT REPORT

*Submitted by*

KAMALI B (210616205021)

RACHEL J (210616205039)

RAGAVI R (210616205040)

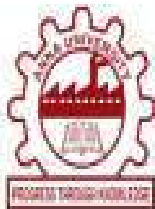
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**BONAFIDE CERTIFICATE**

Certified that this project report "SMART CANE FOR VISUALLY IMPAIRED USING IOT" is the bonafide work of "KAMALI B (210616205021), RACHEL J (210616205039), RAGAVI R (210616205040)" who carried out the project work under my Supervision.



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**VOICE BASED MAIL SYSTEM FOR BLIND**

**A PROJECT REPORT**

*Submitted by*

**MOHAMMED RIYAS M (210616205030)**

**SRIBALAJI N (210616205045)**

**SUBASH CHENDUR VELU G (210616205047)**

*in partial fulfillment for the award of the degree*

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Certified that this project report “**VOICE BASED MAIL SYSTEM FOR BLIND**” is the bonafide work of “**MOHAMMED RIYAS M (210616205030), SRIBALAJI N (210616205045), SUBASH CHENDUR VELU G (210616205047)**” who carried out the project work under my Supervision.



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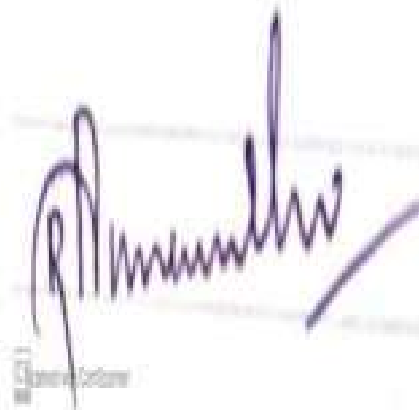
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**A CAT SWARM OPTIMIZATION FOR FAULT CLASSIFICATION  
IN WEB-APPS USING MACHINE LEARNING**

**A PROJECT REPORT**

*Submitted by*  
**SNEHA.G (210616205044)**  
**SUSHMETHA.N.K(210616205049)**  
**PRIYANKA.P (210616205038)**

*in partial fulfillment for the award of the degree of*  
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**External Examiner**



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**SRIPERUMBUDUR - 631604**

**AN EFFICIENT METHOD OF PREDICTING  
PHISHING WEBSITE USING MACHINE  
LEARNING ALGORITHM**

**A PROJECT REPORT**

*Submitted by*

**BENVENUTO.S.P (210616205008)**

**NIVETHINLS (210616205034)**

**PAVITHRA.V (210616205036)**

*In partial fulfillment for the award of the*

*degree of*

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**in**

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SRIPERUMBUDUR - 631604**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report "AN EFFICIENT METHOD OF PREDICTING PHISHING WEBSITES USING MACHINE LEARNING ALGORITHM" is the Bonafide work of **BENVENUTO.S.P (210616205008), NIVETHINIS (210616205034), PAVITHRA.V (210616205036)**" who carried out the project work under my Supervision.



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**DIGITAL DOCUMENT MATCHING WITH  
STREAMING IMAGE**

**A PROJECT REPORT**

*Submitted by*

<b>PREMKUMAR TS</b>	<b>210616205037</b>
<b>NARESH KUMAR M</b>	<b>211616205033</b>
<b>SUGUMAR R</b>	<b>211616205048</b>

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Certified that this project report "DIGITAL DOCUMENT MATCHING WITH STREAMING IMAGE" is the bonafide work of SUGUMAR R (210616205048), PREMKUMAR TS (210616205037) and NARESHKUMAR M (210616205033) who carried out the project work under my supervision



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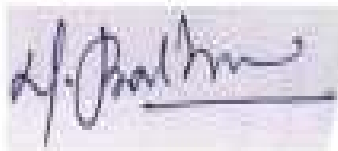


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PRINCIPAL  
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**CLOUD FAULT MANAGEMENT ALGORITHM TO AVOID  
FLYOVER IN SESSION USING CLOUDLET RECOVERY  
SCHEDULING**

**A PROJECT REPORT**

*Submitted by*

ARUL PRAKASH .S      (210616205006)  
SATHISH KUMAR.K.    (210616205043)  
THILAK THEJESH.R    (210616205051)

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF TECHNOLOGY**

*in*

**INFORMATION TECHNOLOGY**



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**September 2020**

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**BONAFIDE CERTIFICATE**

Certified that this project report “Cloud Fault Management Algorithm to avoid flyover in session using Cloudlet Recovery Scheduling” is the bonafide work of ARUL PRAKASH .S (210616205006), SATHISH KUNAR.K. (210616205043) , THILAK THEJESH.R (210616205051) who carried out the project work under my Supervision.



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This project report is submitted for viva voce examination to be held on 23/06/2020

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**ENHANCING AND EVALUATING THE PRIVACY OF  
THE USER IN BITCOIN TRANSACTION**

**A PROJECT REPORT**

*Submitted by*

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**JAIKANTH.S** (210616205018)

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September 2020

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Certified that this project report "ENHANCING AND EVALUATING THE PRIVACY OF THE USER IN BITCOIN TRANSACTION" is the bonafide work of "KALAIYARASAN.K(210616205020), BOOPATHY.S(210616205010),JAIKANTH.S(210616205018)" who carried out the project work under my supervision.



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**A DEEP LEARNING FRAMEWORK FOR LENGTH  
INDEPENDENT WRITER IDENTIFICATION BY USING  
FASTER-RCNN**

**Submitted by**

**Student Name**

Karthikeyan B

**Register no.**

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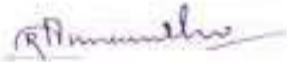
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**BONAFIDE CERTIFICATE**

Certified that this project report "A DEEP LEARNING FRAMEWORK FOR LENGTH INDEPENDENT WRITER IDENTIFICATION BY USING FASTER-RCNN " is the bonafide work of Karthikeyan B (210616205022) who carried out the project work under my Supervision.



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**SRIPERUMBUDUR - 631604**

**PREDICTION OF TIN PRICE IN LONDON METAL EXCHANGE USING  
ARIMAX**

**A PROJECT REPORT**

submitted by

**B.KAUSHIK DAYABAR (210616205023)**

**ANRUDH K.S.M (210616205004)**

**KESAVAN S (210616205024)**

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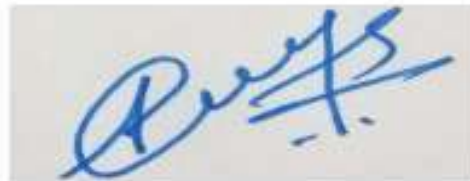
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SEPTEMBER 2020



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**Smart Restaurant Management With Hologram Using  
Internet Of Things**

**A PROJECT REPORT**

*Submitted by*

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Certified that this project report "Smart Restaurant Management With Hologram Using Internet Of Things" is the bonafide work of "ALLWIN PRATAP.A (210615205002), YUVARAJ.M (210615205055)" who carried out the project work under my Supervision.



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**PRINCIPAL  
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**PREDICTION OF RAINFALL INDUCED LANDSLIDE  
SUSCEPTIBILITY ANALYSIS USING NEURAL  
NETWORKS.**

**A PROJECT REPORT**

*Submitted by*

**ANUJA SV (210616205005)**

**MAGIZHINI R (210616205025)**

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**BONAFIDE CERTIFICATE**

Certified that this project report "Prediction of rainfall induced landslide susceptibility analysis using Neural Networks" is the bonafide work of "ANUJA SV (210616205005), MAGIZHINI R (210615205025)" who carried out the project work under my Supervision.



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**DETECTION OF FAKE PROFILE IN ONLINE SOCIAL  
NETWORKS BASED ON DATA MINING TECHNIQUES  
USING MACHINE LEARNING**

**A PROJECT REPORT**

*Submitted by*

**SWATHIPRIYA M (210616205050)**

**VISALI A S (210616205054)**

**BHAVADHARANI P (210616205009)**

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**BONAFIDE CERTIFICATE**

Certified that this project report "DETECTION OF FAKE PROFILE IN ONLINE SOCIAL NETWORKS BASED ON DATA MINING TECHNIQUES USING MACHINE LEARNING" is the bonafide work of "SWATHIPRIYA M (210616205050), VISALI A S (210616205054), BHAVADHARANI P (210616205009)" who carried out the project work under my Supervision.



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**VENATOR  
[COMPROMISE ASSESSMENT TOOL]**

**A PROJECT REPORT**

*Submitted by*

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**ANAND RAJ.M (210616205046)**

**VIGNESH.R (210616205046)**

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**SEPTEMBER 2020**

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Certified that this project report "VENATOR" is the bonafide work of  
"STEPHANJOHN.S (210616205046), VIGNESHR (210616205052),  
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**SRIPERUMBUDUR - 631604**

# Simplified Fueling System with Smart Mobile Application for faster checkouts

A PROJECT REPORT

*Submitted by*

P.Hemalatha (210616205016)

R.Pavithra (210616205035)

M.Gogula (210616205013)

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JEPPIAAR INSTITUTE OF TECHNOLOGY, SRIPERUMBUDUR

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SEPTEMBER 2020

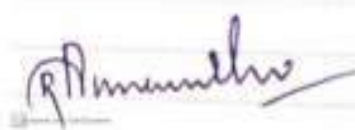
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ANNA UNIVERSITY : CHENNAI 600 025

**BONAFIDE CERTIFICATE**

Certified that this project report "**Simplified Fueling System with Smart Mobile Application for faster checkouts**" is the bonafide work of "**P.Hemalatha (210616205016), R.Pavithra(210616205035), M.Gogula(210616205013)**" who carried out the project work under my Supervision.



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**GENERATIVE ADVERSARIAL NETWORKS (GAN's) FOR FRAUD  
DETECTION ON CREDIT CARD TRANSACTIONS**

**A PROJECT REPORT**

*Submitted by*

**MANIKANDA PRABHU B (210616205028)**

**MOHAMED YASIN S K (210616205029)**

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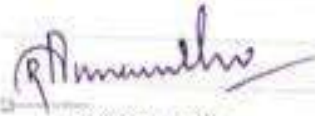
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September 2020

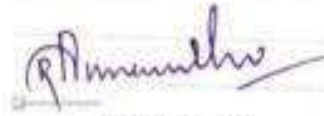
### BONAFIDE CERTIFICATE

Certified that this project report “ **GENERATIVE ADVERSARIAL NETWORKS (GAN’S) FOR FRAUD DETECTION ON CREDIT CARD TRANSACTIONS**” is the bonafide work of **MANIKANDA PRABHU B (210616205028) MOHAMED YASIN S K (210616205029)**” who carried out the project work under my supervision.



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**PREDICTIVE FINANCIAL PIPELINE DASHBOARD USING  
MACHINE LEARNING**

**A PROJECT REPORT**

*Submitted by*

**VIGNESH V (210616205053)**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF TECHNOLOGY**

*in*

**INFORMATION TECHNOLOGY**



**JEPPIAAR INSTITUTE OF TECHNOLOGY, SRIPERUMBUDUR**

**ANNA UNIVERSITY, CHENNAI 600 025**

**SEPTEMBER 2024**

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SRIPERUMBUDUR - 631604**

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**BONAFIDE CERTIFICATE**

Certified that this project report "**PREDICTIVE FINANCIAL PIPELINE DASHBOARD USING MACHINE LEARNING**" is the bonafide work of "**VIGNESH.V(210616205053)**" who carried out the project work under my Supervision.



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This project report is submitted for viva voce examination to be held on  
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**PURSUING SYSTEMATICAL PRESCRIPT IN STASH**

**A PROJECT REPORT**

*Submitted by*

**GOPINATH. N (210616205014)**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF TECHNOLOGY**

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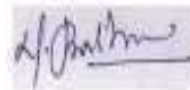
## BONAFIDE CERTIFICATE

Certified that this project report "PURSUING SYSTEMATICAL PRESCRIPT IN STASH" is the bonafide work of "GOPINATH.N (210616205014)" who carried out the project work under my Supervision.



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