



**Sundaram Motors**

P B No. 713  
180, Anna Road,  
Chennai - 600 006.  
Phone : 2857 9300

04.06.2018

To  
The HOD  
Thiagarajar College of Engineering  
Madurai - 625015

Dear Sir/ Madam,

We are pleased to provide **Sri. Ivan Sam Santosham. B.E Mechanical Engineering II<sup>nd</sup>** year Student in your college, an **Internship** training in Workshop department at **Sundaram Motors Chennai** for the period effective from **04<sup>th</sup> June 2018 to 04<sup>th</sup> July 2018.**

For Sundaram Motors

**Senior General Manager- Corporate HR**

A Division of T V Sundram Iyengar & Sons Private Limited  
Registered Office. 7B, West Veli Street, Post Box No. 21, Madurai - 625 001. CIN : U34101TN1929PTC002973





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Balaji M.P

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Chupadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Logesh Karthick. M

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Karthik Raja.D

of College/ University Thiagarajar college of Engineering, Madurai

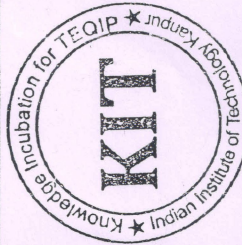
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*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Kevin Christopher.S  
of College/ University Thiagarajar college of Engineering, Madurai  
for participating in INTRODUCTION TO MANUFACTURING PROCESSES  
From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha  
(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay  
(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

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National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Prithivi Raj.M

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha  
(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay  
(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

— OF PARTICIPATION —

This certificate is awarded to

Prashanth Marlappan.M

of College/ University

Thiagarajar college of Engineering, Madurai

for participating in

INTRODUCTION TO MANUFACTURING PROCESSES

From

June 11

to

June 22, 2018

held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Dr. C.S. Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Kani Balan.T

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE DEVELOPMENT

**NPIU**

National Policy Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

OF PARTICIPATION

This certificate is awarded to Santhana Karthikeyan.RM

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



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DEVELOPMENT

**NPIU**

Natural Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Rajesh.P

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*  
Dr. Niraj Sinha  
(Course Co-ordinator)



*Upadhyay*  
Dr. C.S. Upadhyay  
(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur

## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Sathesh Kumar.R

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Dr. C.S. Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur

## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Kumara Prasad.K

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)

*Dr. C.S. Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

NPIU

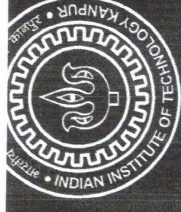
National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Balakumaran.R

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*  
Dr. Niraj Sinha

(Course Co-ordinator)



*Chupadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



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MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Veera Manikandan.V

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



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MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

NPIU

National Project Implementation Unit





स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 10268

16/12/2017

## Certificate

Certified that **Shri ARJUN S, B.E(MECH), III year student of THIAGARAJAR COLLEGE OF ENGINEERING MADURAI** has undergone In-plant / Internship Training in the area of **MECHANICAL MAINTENANCE** at Salem Steel Plant during the period from **12/12/2017 to 16/12/2017.**

P Murugesan

पी. मुरुगेशन DGM (HRD) & IED

P. Murugesan

उप महाप्रबन्धक (मानव संसाधन विकास) एवं औद्योगिक अभियंता

Dy. General Manager (HRD) & IED



सेलम - 636 013 तमिलनाडु  
Salem-636 013 Tamil Nadu

दूरभाष : 0427-238 3021 फ़ैक्स : 0427-238 2800  
Phone : 0427-238 3021 Fax : 0427-238 2800

ई-मेल : genladmn@sailssp.in  
E-mail : genladmn@sailssp.in

वेबसाइट : www.sail.co.in  
Website : www.sail.co.in

हर किसी की ज़िन्दगी से जुड़ा हुआ है सैल.

There's a little bit of SAIL in everybody's life



DCB/RTC/IPT/01

Date: 04.07.2018

C E R T I F I C A T E

*This is to certify that **Mr. M.Ajith kumar** pursuing Second year **B.E(mech)** from **Thiyagarajar College of Engineering ,Madurai** has undergone **In-Plant Training** in our Organization from **02.07.2018 to 04.07.2018**.*

*During the Training Period, his/her Performance, Conduct was found to be Good.*

*We wish all success for his /her Bright Future.*

**For DALMIA CEMENT (BHARAT) LTD.,**



**M.Vijayakumar**  
Sr.Manager-HR

**Dalmia Cement (Bharat) Limited**

Dalmiapuram, District-Trichy-621 651, Tamil Nadu, India  
t 91 4329235123, f 91 4329235111 w [www.dalmiacement.com](http://www.dalmiacement.com). CIN : U65191TN1996PLC035963  
Registred Office : Dalmiapuram, Dist. Tiruchirapalli, Tamil Nadu-621 651, India  
A **Dalmia Bharat Group** company, [www.dalmiabharat.com](http://www.dalmiabharat.com)





# MACBRO TECHNOLOGY INDIA PVT.LTD

Design office: AKS TOWER, 2nd floor, No.5, somasundaram avenue,  
Shakthi nagar, porur, chennai-600116, Tamilnadu, India.



DATE: 30-6-2018

PLACE: CHENNAI

## SUB: INTERNSHIP LETTER

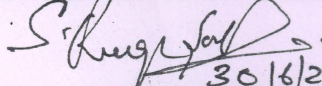
This is to certify that Mr. Mahesh Krishna.S, has undergone Internship training on Product development at MACBRO Technology (I) pvt.ltd, R&D-INDIA and successfully has completed the awareness Program.

During his training, He was exposed to the various activities in  
"Basic Tool Knowledge in Catia v5, Plastic domain, product development in the automotive field"

During the period of his training program with us, we found him punctual, hardworking and inquisitive.

We wish him all the best in his future endeavors.

MACBRO TECHNOLOGY INDIA PRIVATE LIMITED PVT.LTD

  
30/6/2018  
AUTHORISED SIGNATORY

Authorized Signatory,

Training Head.





# MACBRO TECHNOLOGY INDIA PVT.LTD

Design office: AKS TOWER, 2nd floor, No.5, somasundaram avenue,  
Shakthi nagar, porur, chennai-600116, Tamilnadu, India.



DATE: 30/6/2018.

PLACE: CHENNAI

## SUB: INTERNSHIP LETTER

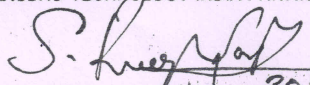
This is to certify that Mr. Shanmuga Sathish. S., has undergone Internship training on Product development at MACBRO Technology (I) pvt.ltd, R&D-INDIA and successfully has completed the awareness Program.

During his training, He was exposed to the various activities in  
“Basic Tool Knowledge in Catia v5, Plastic domain, product development in the automotive field”

During the period of his training program with us, we found him punctual, hardworking and inquisitive.

We wish him all the best in his future endeavors.

For MACBRO TECHNOLOGY INDIA PVT.LTD  
For MACBRO TECHNOLOGY INDIA PRIVATE LIMITED

  
Authorized Signatory 30/6/2018  
APPROVED SIGNATORY

Training Head.





Padi,  
Chennai - 600 050, India  
Telephone : 044-2625 8212  
Fax : 044-2625 7177

*Sundaram-Clayton Limited*

Date: 02.07.2018

## Certificate

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Ranjith S, B.E (Mechanical Engineering)** student from Thiagarajar College Of Engineering, Madurai has successfully completed his institutional training in our company from **14.06.2018 to 30.06.2018**.

We wish him all the best in his future endeavors.

For SUNDARAM-CLAYTON LIMITED

Vidhya M  
Senior Executive - HR





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Pragadeesh Suhan B.H

of College/ University Thiagarajar college of Engineering, Madurai

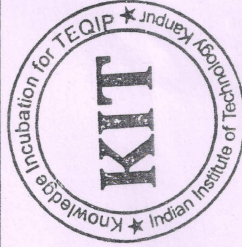
for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



Government of India  
MINISTRY OF HUMAN RESOURCE  
DEVELOPMENT

**NPIU**

National Project Implementation Unit





# Knowledge Incubation for TEQIP

Indian Institute of Technology Kanpur



## CERTIFICATE

\_\_\_\_\_ OF PARTICIPATION \_\_\_\_\_

This certificate is awarded to Neela Aravind. P

of College/ University Thiagarajar college of Engineering, Madurai

for participating in INTRODUCTION TO MANUFACTURING PROCESSES

From June 11 to June 22, 2018 held at IIT Kanpur.

*Niraj Sinha*

Dr. Niraj Sinha

(Course Co-ordinator)



*Upadhyay*

Dr. C.S. Upadhyay

(Project Investigator, TEQIP, IIT Kanpur)



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Padi,  
Chennai - 600 050, India  
Telephone : 044-2625 8212  
Fax : 044-2625 7177

# Sundaram-Clayton Limited

Date: 02.07.2018

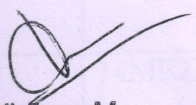
## Certificate

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Ganesan C, B.E (Mechanical Engineering)** student from **Thiagarajar College Of Engineering, Madurai** has successfully completed his institutional training in our company from **14.06.2018 to 23.06.2018**.

We wish him all the best in his future endeavors.

For SUNDARAM-CLAYTON LIMITED

  
Vidhya M  
Senior Executive - HR





स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 11431

30/06/2018

## Certificate

Certified that **Shri RAJESH P, BE(MECH), IV year student of THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI** has undergone In-plant / Internship Training in the area of **MECHANICAL MAINTENANCE** at Salem Steel Plant during the period from **25/06/2018 to 30/06/2018.**

P Murugesan  
DGM (HRD) & IED

पी. मुरुगेशन

P. Murugesan

उप महाप्रबन्धक (मानव संसाधन विकास) एवं अद्या अपि विभाग  
Dy. General Manager (HRD) & IED



सेलम - 636 013 तमिलनाडु  
Salem-636 013 Tamil Nadu

दूरभाष : 0427-238 3021 फैक्स : 0427-238 2800  
Phone : 0427-238 3021 Fax : 0427-238 2800

ई-मेल : genladmn@sailssp.in  
E-mail : genladmn@sailssp.in

वेबसाइट : www.sail.co.in  
Website : www.sail.co.in





स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 11495

14/07/2018

## Certificate

Certified that **Shri VIGNESH R, BE(MECH), III year student of THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI** has undergone In-plant / Internship Training in the area of **MECHANICAL MAINTENANCE** at Salem Steel Plant during the period from **09/07/2018 to 14/07/2018.**



P Murugesan  
DGM (HRD) & IED  
पी. मुरुगेशन  
P Murugesan  
उप महाप्रबन्धक (मानव संसाधन विकास) एवं अंतर्राष्ट्रीय प्रशिक्षण प्रमुख  
Dy. General Manager (HRD) & IED

सेलम - 636 013 तमिलनाडु  
Salem-636 013 Tamil Nadu

दूरभाष : 0427-238 3021 फ़ैक्स : 0427-238 2800  
Phone : 0427-238 3021 Fax : 0427-238 2800

ई-मेल : genladmn@sailssp.in  
E-mail : genladmn@sailssp.in

वेबसाइट : www.sail.co.in  
Website : www.sail.co.in

हर किसी की जिन्दगी से जुड़ा हुआ है सैल

There's a little bit of SAIL in everybody's life





स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 11488

28/06/2018

## Certificate

Certified that **Shri BOOBALAN V, BE(MECHANICAL), III year**  
**student of THIAGARAJAR COLLEGE OF ENGINEERING,**  
**MADURAI** has undergone In-plant / Internship Training in the area of  
**MECHANICAL MAINTENANCE** at Salem Steel Plant during the  
period from **22/06/2018** to **28/06/2018**.

P Murugesan  
DGM (HRD) & IED

पी. मुरुगेशन

P. Murugesan

उप महाप्रबन्धक (मानव संसाधन विकास) एवं औद्योगिक अभियंता  
Dy. General Manager (HRD) & IED



सेलम - 636 013 तमिलनाडु  
Salem-636 013 Tamil Nadu

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ई-मेल : genladmn@sailssp.in वेबसाइट : www.sail.co.in  
E-mail : genladmn@sailssp.in Website : www.sail.co.in





**TVS**

**SRI VENKATESWARA AGENCIES**

**Authorised Main Dealer**

**132, Anna Salai, Rasipuram - 637408.**

**Ph : 04287 220856.**

**Cell : 81481 12124.**

Date:22.07.2018

**INPLANT TRAINING CERTIFICATE**

This is to certify that **Mr.V.BOOBALAN (Reg no.15G122)** studying in

**Final year B.E Mechanical Engineering** has undergone a training in our concern

From **02.07.2018 to 08.07.2018**

During this period his conduct & character was good.

With regards,

For Sri Venkateswara TVS,



Managing Partner.





**TVS**

**SRI VENKATESWARA AGENCIES**

**Authorised Main Dealer**

**132, Anna Salai, Rasipuram - 637408.**

**Ph : 04287 220856.**

**Cell : 81481 12124.**

Date:10.07.2018

**INPLANT TRAINING CERTIFICATE**

This is to certify that **Mr.N.AJAI (Reg no.15G118)** studying in  
**Final year B.E Mechanical Engineering** has undergone a training in our concern

From **25.06.2018 to 09.07.2018**

During this period his conduct & character was good.

With regards,

For Sri Venkateswara TVS,

  
Managing Partner.



## Carborundum Universal Limited

Bonded Abrasives Division.48, Sipcot Indl. Complex, Hosur - 635 126, (T.N.), India.  
Tel : +91-4344 - 304045 / 304064 / 304068 / 304070 Fax: (04344) 277060  
Website : www.cumi.murugappa.com  
CIN : L29224TN1954PLC000318

CUMI

22.12.2017

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr P S Mathankumar** - Reg.No .15G132, a student of III year B.E Mechanical of Thiagarajar College of Engineering, Madurai has done Internship Project in our organization from **7<sup>th</sup> December 2017 to 22<sup>nd</sup> December 2017.**

We wish him all success in his future endeavour.

For **CARBORUNDUM UNIVERSAL LIMITED,**  
Bonded Abrasives,

*K. Satish Kumar*

K. Satish Kumar  
Sr. Manager - HR



Date: 23.01.2018

Place: MADURAI



murugappa





स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 11489

28/06/2018

## Certificate

Certified that **Shri MATHANKUMAR P.S, BE(MECHANICAL), III**  
**year student of THIAGARAJAR COLLEGE OF ENGINEERING,**  
**MADURAI** has undergone In-plant / Internship Training in the area of  
**MECHANICAL MAINTENANCE** at Salem Steel Plant during the  
period from **22/06/2018** to **28/06/2018**.

P Murugesan

DGM (HRD) & IED

पी. मुरुगेशन

P. Murugesan

उप महाप्रबन्धक (मानव संसाधन विकास) एवं औद्योगिक अभियंता विभाग  
Dy. General Manager (HRD) & IED



सेलम - 636 013 तमिलनाडु  
Salem-636 013 Tamil Nadu

दूरभाष : 0427-238 3021 फैक्स : 0427-238 2800  
Phone : 0427-238 3021 Fax : 0427-238 2800

ई-मेल : genladmn@sailssp.in  
E-mail : genladmn@sailssp.in

वेबसाइट : www.sail.co.in  
Website : www.sail.co.in



Nova Carbons India Private Limited (100% EOU)

Address : B47, 48 & 49, SIPCOT Industrial Growth Centre I Gangaikondan  
Tirunelveli - 627 352 I India I Tel.: +91 462 256 8800-13 I Fax: +91 462 256 8814  
E-mail: info.jcin@jacobi.net I Web: www.jacobi.net



3 divisions = 1 great company



## CERTIFICATE OF INTERNSHIP

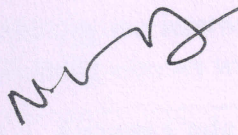
REF: JCN/HRD/EXT COMM/2375/2018

29.06.2018

This is to certify that **Mr. Selva Kumar A**, Reg no: 15G144, BE-Mechanical, Third year student of Thiagarajar College of Engineering, Madurai has completed his internship training at our concern from 01.06.2018 to 30.06.2018.

We Wish him all the best in future endeavours.

For NOVA Carbons India Private Limited,

  
N. Vasantha Prabhu

Plant Manager







Tractors and Farm Equipment Limited  
10/205, Kalladipatti – 624 201  
Tamil Nadu, India  
T: +91 4543 254 602 / 03 / 04  
F: +91 4543 254 515  
E: corporate@tafe.com  
CIN No: U29129TN1960PLC004337  
tafe.com

Registered Office:  
861, Anna Salai, Chennai - 600 002  
T: +91 44 2841 5441 / 2858 4918

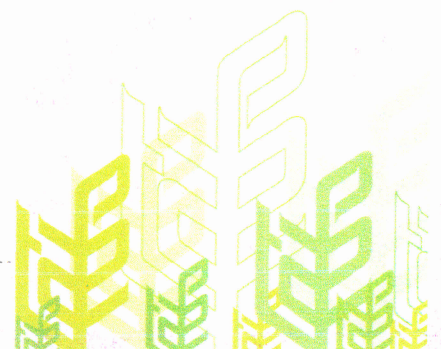
24-03-2018

**To whomsoever it may concern**

This is to certify that **Mr. R Karthikeyan (14G35)** studying 4<sup>th</sup> year **BE Mechanical** in **TCE, Madurai** has successfully completed his internship project, titled – “**Improving RFT and reducing DPU by using quality tools**”, at TAFE-MDU from 14-11-2017 to 24-03-2018.

for Tafe Limited

Arshad  
Human Resources







Tractors and Farm Equipment Limited  
10/205, Kalladipatti – 624 201  
Tamil Nadu, India  
T: +91 4543 254 602 / 03 / 04  
F: +91 4543 254 515  
E: corporate@tafe.com  
CIN No: U29129TN1960PLC004337  
[tafe.com](http://tafe.com)

Registered Office:  
861, Anna Salai, Chennai - 600 002  
T: +91 44 2841 5441 / 2858 4918

24-03-2018

**To whomsoever it may concern**

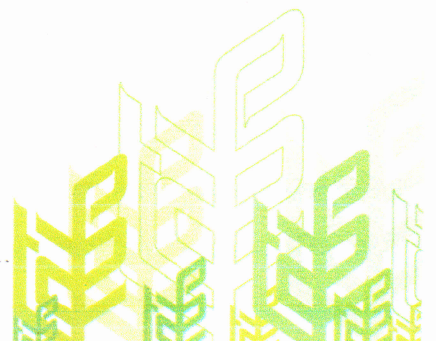
This is to certify that **Mr. M Kavim (14G134)** studying 4<sup>th</sup> year **BE Mechanical** in **TCE, Madurai** has successfully completed his internship project, titled – “**Improving RFT and reducing DPU by using quality tools**”, at TAFE-MDU from 14-11-2017 to 24-03-2018.

for Tafe Limited

Arshad  
Human Resources



MASSEY FERGUSON







स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 11496

14/07/2018

## Certificate

Certified that **Shri PANDI DURAI N, BE(MECH), III year student of THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI** has undergone In-plant / Internship Training in the area of **MECHANICAL MAINTENANCE** at Salem Steel Plant during the period from **09/07/2018 to 14/07/2018.**

P Murugesan

DGM (HRD) & IED

पी. मुरुगेशन

P. Murugesan

वृत्त महाप्रबन्धक (मानव संसाधन विकास) एवं आद्या अभि विभाग

Gen. Manager (HRD) & IED





HRD/2018  
21.03.2018

**CERTIFICATE**  
**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr. Rajapandian P (Reg No.14G072), B.E. (Mechanical Engineering) student of Thiagarajar College of Engineering, GST Road, Thiruparankundram, Madurai 625015 had done a project on **“CONVERSION OF MECHANICAL FIXTURES INTO HYDRAULIC FIXTURES”** from 21.01.2018 to 22.03.2018 in our organization.

His conduct and character during the Project were found to be good.

We wish him all success in his future endeavors.

*K.V. Selvaraj*  
K.V.Selvaraj  
Deputy Manager - HRD





# INDIAN MOTOR CORPORATION PVT LTD

( An indian tech revolution )

Date: : 14/12/2017

TO WHOM IT MAY CONCERN

This is to certify that **Mr.GANESAN C** a student of **THIAGARAJAR COLLEGE OF ENGINEERING** has successfully completed **Industry Interaction Automotive Internship** from 08-DECEMBER-2017 to 14-DECEMBER-2017 in association with our training partner **Nicola Educational and Research Institute**, Chennai. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For Indian Motor Corporation Pvt Ltd .,

Authorized Signature







स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 9244

13/06/2017

## Certificate

Certified that

**Shri PUVANESWARAN M**  
**B.E(MECH), II year**

Student of

**THIAGARAJAR COLLEGE OF ENGINEERING**  
**MADURAI**

has under gone In-plant/Internship  
Training in the area of

**MECHANICAL MAINTENANCE**

In Salem Steel Plant during the  
period

from **07/06/2017 to 13/06/2017**



**P Murugesan**  
**DGM (HRD) & IED**

सेलम - 636 013 तमिलनाडु दूरभाष : 0427-238 3021 फैक्स : 0427-238 2800 ई-मेल : genladmn@sailssp.in वेबसाइट : www.sail.co.in  
Salem-636 013 Tamil Nadu Phone : 0427-238 3021 Fax : 0427-238 2800 E-mail : genladmn@sailssp.in Website : www.sail.co.in

हर किसी की ज़िन्दगी से जुड़ा हुआ है सैल

There's a little bit of SAIL in everybody's life





स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 9243

13/06/2017

## Certificate

Certified that

Shri KAVINKUMAR R  
B.E(MECH), II year

Student of

THIAGARAJAR COLLEGE OF ENGINEERING  
MADURAI

has under gone In-plant/Internship  
Training in the area of

MECHANICAL MAINTENANCE

In Salem Steel Plant during the  
period

from 07/06/2017 to 13/06/2017

P Murugesan  
DGM (HRD) & IED



सेलम - 636 013 तमिलनाडु  
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दूरभाष : 0427-238 3021 फैक्स : 0427-238 2800  
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Website : www.sail.co.in

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There's a little bit of SAIL in everybody's life





स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 9173

10/06/2017

## Certificate

\*Certified that

Shri ARUN PRAKASH S  
B.E(MECH), II year

Student of

THIAGARAJAR COLLEGE OF ENGINEERING  
MADURAI

has under gone In-plant/Internship  
Training in the area of

**MECHANICAL MAINTENANCE**

In Salem Steel Plant during the  
period

from 05/06/2017 to 10/06/2017

P Murugesan  
DGM (HRD) & IED



सेलम - 636 013 तमिलनाडु दूरभाष : 0427-238 3021 फैक्स : 0427-238 2800 ई-मेल : genladmn@sailssp.in वेबसाइट : www.sail.co.in  
Salem-636 013 Tamil Nadu Phone : 0427-238 3021 Fax : 0427-238 2800 E-mail : genladmn@sailssp.in Website : www.sail.co.in

हर किसी की ज़िन्दगी से जुड़ा हुआ है सैल

There's a little bit of SAIL in everybody's life

Scanned by CamScanner



09.06.2017

To

The Principal,  
Thiagarajar College of Engineering,  
Madurai-625015.

Dear Sir,

This is to certify that Mr.Gokul.D (15G029), Mr.Arjun.S (15G011) Mr.Karthikeyan.D (15G045), Mr.Sam jovart.P (15G141), III Year B.E- Mechanical Engineering students of your institution has successfully completed Internship Training in our Organization during the period 01<sup>st</sup> June '17 to 09<sup>th</sup> June '17.

Thanking You,  
For Bull Machines Pvt Ltd.,



Poornima.R  
Manager -HR

**Corporate Office :**  
S.F. No. 5/1-A, L&T By-pass Junction,  
Coimbatore - 641 103. India  
Ph : 0422-6525753, 6586655, 6586677  
E-mail : sales@bullmachine.com

**Regional Office :**  
H - 101, Sector - 63, Noida - 201 301. India  
Ph : 0120-4751 333 (7 Lines), 3256 574  
Fax : 0120-2427 165 Cell : 093120 69285  
E-mail : dro@bullmachine.com  
[www.bullindia.com](http://www.bullindia.com)

**Customer Care Division :**  
13/54, Trichy Road, Coimbatore - 641 103. India  
Customer Care No. : 0422-392 2222 (10-Lines)  
Service Complaint Regn. SMS No. 88832 88832  
E-mail : service@bullmachine.com




**Thiagarajar College of Engineering, Madurai – 625 015**  
**TCE-TVSM Collaborative Education Program”**

**2014 Batch Students Internship Details**

This is to certify that the following students attended Internship at TVSM during the academic year 2017-18. The list of students given below:

S.No	Reg No	Name	Semester	Starting Date	Ending Date
1	14G01	A.Abdul Jabbar Wasith	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
2	14G05	Ananda Kumar J M	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
3	14G08	R.Arunkumar	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
4	14G17	Deepak A	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
5	14G19	Dinesh Kumar.R	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
6	14G48	Manoj Prabakar M	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
7	14G54	Murugan M	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
8	14G62	M Nithin Krishna	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
9	14G90	Shivram.S	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
10	14G92	R.Sivaramakrishnan	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
11	14G99	Surya Kumar E	7	29.11.17	09.12.17
			8	29.12.17	04.05.18
12	14F09	B.Chandrapreethi	7	29.11.17	09.12.17
			8	29.12.17	04.05.18

  
**Coordinator**  
**TCE-TVSM CEP**  
**M. BALAMURALI**  
**APME, TCE**




**Thiagarajar College of Engineering, Madurai – 625 015**  
**TCE-TVSM Collaborative Education Program”**

**2015 Batch Students Internship Details**

This is to certify that the following students attended Internship at TVSM during the academic year 2017-18. The list of students given below:

S.No	Reg No	Name	Semester	Starting Date	Ending Date
1	15G015	T.Balaji	5	29.11.17	09.12.17
			6	04.06.18	16.06.18
2	15G019	V.Chakradhar	5	29.11.17	09.12.17
			6	04.06.18	16.06.18
3	15G033	S.Gowtham Raj	5	29.11.17	09.12.17
			6	04.06.18	16.06.18
4	15G057	V.Mohankumar	5	29.11.17	09.12.17
			6	04.06.18	16.06.18
5	15G078	S.Santhosh	5	29.11.17	09.12.17
			6	04.06.18	16.06.18
6	15G080	B.Saravana kumar	5	29.11.17	09.12.17
			6	04.06.18	16.06.18
7	15G083	S.Sathiyasai	5	29.11.17	09.12.17
			6	04.06.18	16.06.18
8	15G110	B.Vijay	5	29.11.17	09.12.17
				04.06.18	16.06.18

  
**Coordinator**  
**TCE-TVSM CEP**  
**M. BALAMURALI**  
**APMEI TCE**




**Thiagarajar College of Engineering, Madurai – 625 015**  
**TCE-TVSM Collaborative Education Program"**

**2016 Batch Students Internship Details**

This is to certify that the following students attended Internship at TVSM during the academic year 2017-18. The list of students given below:

S.No	Reg No	Name	Semester	Starting Date	Ending Date
1	16G017	S.Aswin Raj	3	29.11.17	09.12.17
			4	04.06.18	16.06.18
2	16G047	NG Karthikeyan	3	29.11.17	09.12.17
			4	04.06.18	16.06.18
3	16G087	A Saravanapandian	3	29.11.17	09.12.17
			4	04.06.18	16.06.18
4	16G102	S Thambidurai	3	29.11.17	09.12.17
			4	04.06.18	16.06.18
5	16G109	M Venkateswaran	3	29.11.17	09.12.17
			4	04.06.18	16.06.18

  
**Coordinator**  
**TCE-TVSM CEP**  
**M. BALAMURUGAN**  
**APME, TCE**



**Thiagarajar College of Engineering, Madurai – 625 015**  
**TCE-TVSM Collaborative Education Program**

**2017 Batch Students Internship Details**

This is to certify that the following students attended Internship at GTTI Coimbatore during the academic year 2017-18. The list of students given below:

S.No	Reg No	Name	Semester	Starting Date	Ending Date
1	17G075	M.Praveen Kumar	2	04.06.18	04.07.18
2	17G080	R.Rakesh	2	04.06.18	04.07.18
3	17G083	K.Ramanathan	2	04.06.18	04.07.18
4	17G087	S.Sabarinathan	2	04.06.18	04.07.18
5	17G113	V.Vijay Anand	2	04.06.18	04.07.18

  
Coordinator  
TCE-TVSM CEP

M. BALAMURALI  
APME, TCE.



# THIAGARAJAR COLLEGE OF ENGINEERING

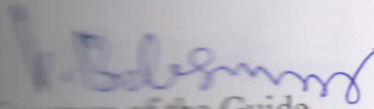
(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. TBHUVANESH KUMAR(14G14)** and **Mr. M.G.NICKLESH BABU**  
(14G14) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-  
2018.


  
Signature of the Guide

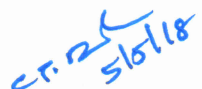
  
Signature of H.D.M.E

Station: Madurai

Date: 3/5/18

Submitted for Viva-Voce held at Thiagarajar College of Engineering, Madurai –  
625015, on 5/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E



# THIAGARAJAR COLLEGE OF ENGINEERING

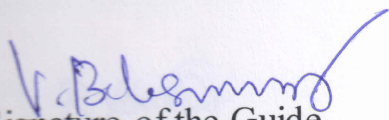
(An Autonomous Institution Affiliated to Anna University)



MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. M.VENKATESH (14G109)** and **Mr. B.KARTHIKEYAN (14G132)** of  
Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

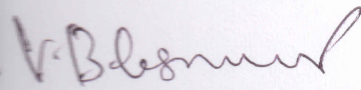
  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

Date: 31/5/18

Submitted for Viva-Voce held at Thiagarajar College of Engineering, Madurai –  
625015, on 5/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.



## CERTIFICATE

Certified that this is a bonafide record of 14ME880-Project done by

**Mr.C.HARIGOKARNESHWARAN(14G24) and S.M.HARISH BABU (14G27)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

*V. Belesunny*

Signature of the Guide

*[Signature]*

Signature of H.D.M.E

Station: Madurai

Date: *5/5/18*

Submitted for viva voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on *5/5/18*.

*V. Belesunny*

INTERNAL EXAMINER

*5/5*

*CT. P. 5/5/18*

EXTERNAL EXAMINER

*V. Belesunny*  
H.D.M.E. *5/5*



# **HIGH VELOCITY IMPACT ANALYSIS ON LAMINATED COMPOSITE MATERIALS**

**14ME880- Project**

Submitted in partial fulfillment for the requirement of B.E. degree in Mechanical  
Engineering of Anna University

**R.PRADEEP KUMAR**  
(Reg. No: 14G066)

Guided by

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



**Department of Mechanical Engineering**  
**THIAGARAJAR COLLEGE OF ENGINEERING**  
(An Autonomous Institution Affiliated to Anna University)

**MADURAI – 625 015**

**MAY 2018**



# THIAGARAJAR COLLEGE OF ENGINEERING

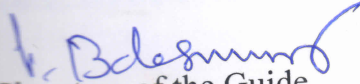
(An Autonomous Institution Affiliated to Anna University)


MADURAI – 625 015.



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
Mr. S. KASI RAMAN (14G37) of Eight Semester B.E. (Mechanical  
Engineering) during the year 2017 - 2018.

  
Signature of the Guide

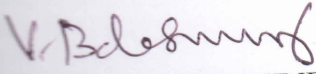
  
Signature of H.D.M.E


Station: Madurai

Date: 31/5/18

---

Submitted for Viva-Voce examination held at Thiagarajar College of  
Engineering, Madurai – 625 015, on 05/05/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



(A Govt. Aided Autonomous Institution affiliated to Anna University)



Certified that this is a bonafide record of the 14ME880 Project done by **Mr. S.SAAJAN(14G80)** and **Mr. V.JEGANRAJ(14G129)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

Signature of H.D.M.E

Date:

4/5/18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 5/5/18

CT. 24  
5/5/18

EXTERNAL EXAMINER

H.D.M.E. 5/5/18



# THIAGARAJAR COLLEGE OF ENGINEERING


(A Govt. Aided ISO 9001:2008 Certified Autonomous Institution,  
Affiliated to Anna University)

**MADURAI – 625 015.**



## Certificate of Evaluation

Certified that this 14ME880 – Project Report titled “*Design and Fabrication of Automatic Loading and Unloading System for Drilling and Tapping Special purpose machine*” is the bonafide work of **Mr. E Vivek Kailash (14G117)** of Eighth Semester B.E – Mechanical Engineering during the academic year 2017 – 2018.

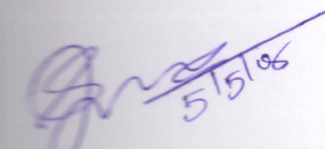
  
Project Guide

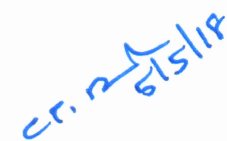
  
H.D.M.E.

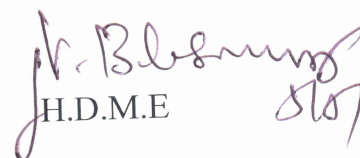
Station : Madurai

Date : 4/5/18

Submitted for the 14ME880-Project Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015 on 5/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

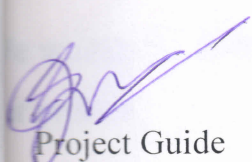
(A Govt. Aided ISO 9001:2008 Certified Autonomous Institution,  
Affiliated to Anna University)

**MADURAI – 625 015.**



## Certificate of Evaluation

Certified that this 14ME880 – Final Report titled “*An inquisitive study on mechanical characteristics of natural fiber reinforced hybrid composites for wind turbine nose*” is the bonafide work of **Mr. Jerome Hubert. J. (14G30)** and **Mr. Suryaprakash. M (14G100)** of Eighth Semester B.E – Mechanical Engineering during the academic year 2017 – 2018.

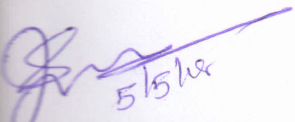
  
Project Guide

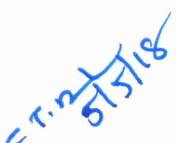
  
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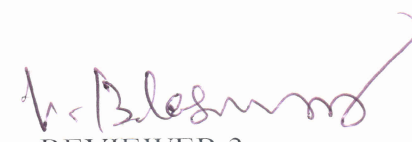
Station : Madurai

Date : 3/5/18

Submitted for the final review 14ME880-Project Viva-Voce examination held at  
Thiagarajar College of Engineering, Madurai – 625 015 on 5.5.2018

  
~~REVIEWER 1~~  
INTERNAL  
EXAMINER

  
~~REVIEWER 2~~  
EXTERNAL  
EXAMINER

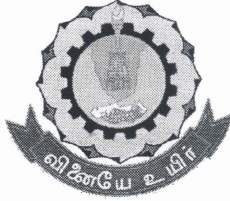
  
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H.D.M.E



# THIAGARAJAR COLLEGE OF ENGINEERING

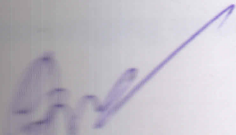
(A Govt. Aided ISO 9001:2008 Certified Autonomous Institution,  
Affiliated to Anna University)

MADURAI – 625 015.



## Certificate of Evaluation

Certified that this 14ME880 – Project Report titled “*An Investigative Study on the Physio-Chemical Properties of Novel Natural Cellulosic Fibres for Use as Biocomposites*” is the bonafide work of **Mr. Prabhu Raja. S. (14G65) and Mr. Rajesh Kamar. E.S. (14G74)** of Eighth Semester B.E – Mechanical Engineering during the academic year 2017 – 2018.


  
Project Guide

  
H.D.M.E.

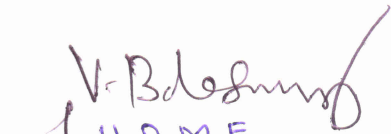
Station : Madurai

Date : 3/5/18

Submitted for the final review 14ME880-Project Viva-Voce examination held at  
Thiagarajar College of Engineering, Madurai – 625 015 on 5/5/18.

  
INTERNAL  
REVIEWER  
Examiner

CT. 2/5/18  
EXTERNAL  
REVIEWER  
Examiner

  
H.D.M.E.  
REVIEWER



# THIAGARAJAR COLLEGE OF ENGINEERING

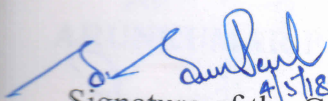
(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

*Certified that this is a bonafide record of the 14ME880 Project Work by Mr. ARUNKUMAR.P (14G07) and Mr. SATHISH.G (14G86) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.*

  
Signature of the Guide

(DR S.SARAVANA PERUMAAL  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL  
ENGINEERING)

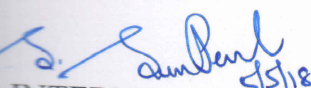
  
Signature of HDME


(DR S.MURALIDHARAN  
ASSOCIATE PROFESSOR AND HEAD  
DEPARTMENT OF MECHANICAL  
ENGINEERING)

Station: Madurai

Date: 4/5/2018

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai -625 015, on 05.05.2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME



# THIAGARAJAR COLLEGE OF ENGINEERING

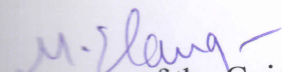
(A Govt. Aided Autonomous Institution Affiliated to Anna University)



MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project and viva voce done by  
**Mr. K.A.Abdul Basith (14G119)** and **Mr. P.Ganesh Kumar (14G124)** of Eighth  
Semester B.E. (Mechanical Engineering) during the year 2017-2018.

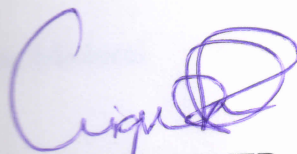
  
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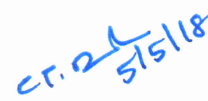
  
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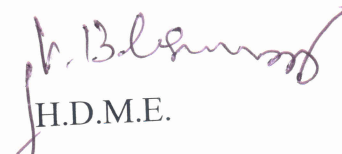
Date: 3.5.18

Station: Madurai

Submitted for Viva-Voce examination held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05.05.18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

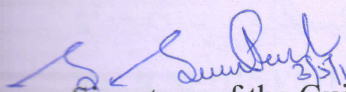
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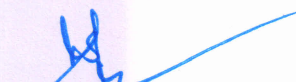


MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. R.M.DINESH ADHITHYA (14G020)** of Eighth Semester B.E.  
(Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide


  
Signature of H.D.M.E

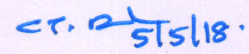
Station: Madurai

Date: 3/5/18

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Submitted for project work held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05/05/2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



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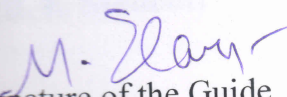
(An Autonomous Institution Affiliated to Anna University)



MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr.B.TAMILVANAN (14G102)** and **Mr.J.THAGAPILLAI (14G103)** of Eighth  
Semester B.E. (Mechanical Engineering) during the year 2017-2018.

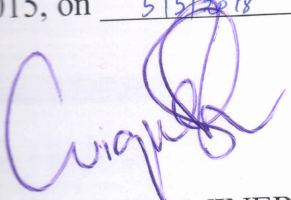
  
Signature of the Guide

  
Signature of H.D.M.E


Station: Madurai

Date: 3.5.18

Submitted for project work held at Thiagarajar College of Engineering, Madurai –  
625 015, on 5/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



**DESIGN OF STEERING CONTROLLED AND AUTOMATED  
BRIGHTNESS CONTROL OF HEADLIGHTS IN  
AUTOMOBILES**

**14ME880 PROJECT**

*Submitted in partial fulfillment for the requirement of B.E. degree in  
MECHANICAL Engineering of Anna University*

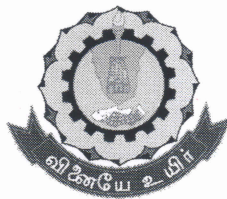
*Submitted by*

**C.K.NATARAJAN**  
**(Reg. No.14G56)**

**S.NAVEEN NAVROZ**  
**(Reg. No.14G57)**

*Guided by*

**Dr. M.ELANGO M.E, Ph.D.,**  
Assistant Professor



***Department of Mechanical Engineering***

**THIAGARAJAR COLLEGE OF ENGINEERING**

(A Govt. Aided, Autonomous Institution, Affiliated to Anna University)

**MADURAI – 15**

**MAY 2018**



# THIAGARAJAR COLLEGE OF ENGINEERING

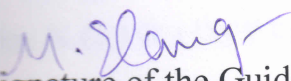
(An Autonomous Institution Affiliated to Anna University)




MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. M.LAKSHMANAN(14G136)** and **Mr. N.G.PRADEESH KUMAR (14G141)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

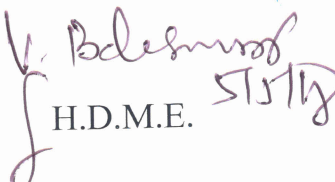
Date: 3.5.18

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Submitted for project work held at Thiagarajar College of Engineering,  
Madurai - 625 015, on 5.5.18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



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Anna University)

**MADURAI – 625 015.**



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. K.B.RANJITH** (14G76) and **Mr. T.KARTHIKEYAN** (14G133) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

Signature of the Guide

Signature of H.D.M.E

Station: Madurai

Date: 5/5/18

---

Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 5/05/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

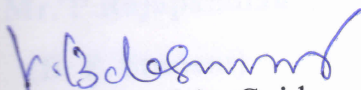
(An Autonomous Institution Affiliated to Anna University)




MADRURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. P.Rajapandian(14G072)** of Eighth Semester B.E. (Mechanical Engineering)  
during the year 2017-2018.

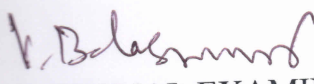
  
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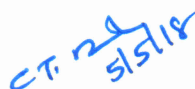
Station: Madurai


Date: 3/5/18

Submitted for project viva voce held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05.05.18.

  
INTERNAL EXAMINER

5/5/18

  
EXTERNAL EXAMINER

  
H.D.M.E



# THIAGARAJAR COLLEGE OF ENGINEERING

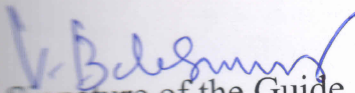
(An Autonomous Institution Affiliated to Anna University)



MADRURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. Abhishek Sudharsan (14G02)** of Eighth Semester B.E. (Mechanical  
Engineering) during the year 2017-2018.

  
Signature of the Guide

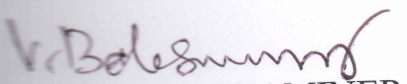
  
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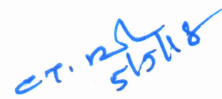
Station: Madurai


Date: 3/5/18

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Submitted for project Viva-Voice examination held at Thiagarajar College of  
Engineering, Madurai – 625 015, on 5/5/2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

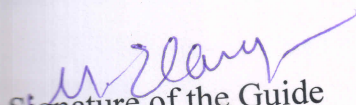
(An Autonomous Institution Affiliated to Anna University)




MADRURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. N.ABINASH RAJ (14G03)** and **Mr. I. NIRMAL RAJ (14G60)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

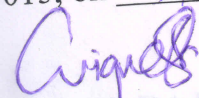
  
Signature of the Guide

  
Signature of H.D.M.E


Station: Madurai

Date: 4/5/18

Submitted for project work held at Thiagarajar College of Engineering, Madurai  
– 625 015, on 5/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

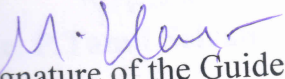
(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work & Viva Voce done by **Mr. T. Sivabalan (14G144)** and **Mr. P. Tamil Selvan (14G146)** of Eight Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

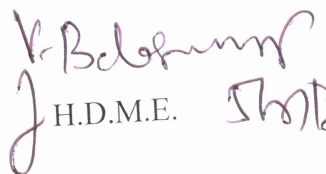
Date: 3.5.18

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Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 5/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

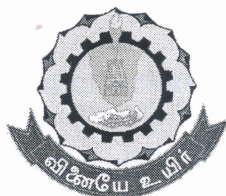
  
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# THIAGARAJAR COLLEGE OF ENGINEERING

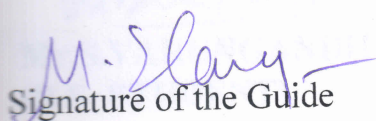
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MADURAI – 15



## BONAFIDE CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project & Viva Voce done by Mr.S.Varungandh (14G107) and Mr.V.Venkatachalam (14G108) of Eighth Semester B.E., Mechanical Engineering during the year 2017 – 2018.

  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

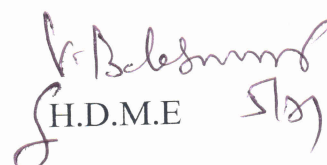
Date: 3.5.18

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Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05.05.2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E



# THIAGARAJAR COLLEGE OF ENGINEERING

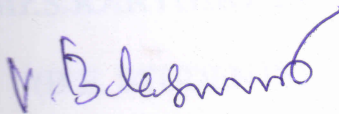
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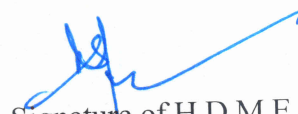
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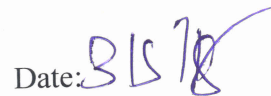
## CERTIFICATE

Certified that this is a Bonafide record of the 14ME880 Project done by Mr.A.GANESHAMOORTHY (14G22) and Mr. S.KARTHIKEYAN (14G36) of Eight Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

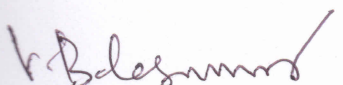
  
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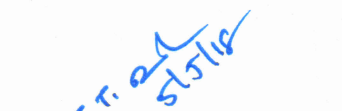
  
Signature of H.D.M.E


Station: Madurai

Date: 

Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05/05/2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

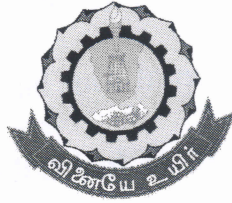
  
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# THIAGARAJAR COLLEGE OF ENGINEERING

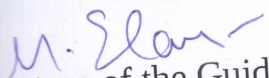
(A Govt. Aided, Autonomous Institution, Affiliated to Anna University)


MADURAI – 15



## BONAFIDE CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project & Viva Voce done by Mr. Jayanth.K.S (14G29) and Mr. Nirmal Jeffrey.B (14G59) of Eighth Semester B.E., Mechanical Engineering during the year 2017 – 2018.

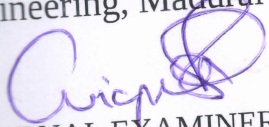
  
Signature of the Guide

  
Signature of H.D.M.E


Station: Madurai

Date: 3.5.18

Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05-05-2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E



# THIAGARAJAR COLLEGE OF ENGINEERING

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MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. S. Hari Prasath (14G26)** of Eighth Semester B.E. (Mechanical  
Engineering) during the year 2017-2018.

Signature of the Guide

Signature of H.D.M.E

Session: Madurai

Date: 06/05/2018

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Submitted for viva-voce examination held at Thiagarajar College of  
Engineering, Madurai – 625 015, on 06/05/2018.

  
6/5/18  
INTERNAL EXAMINER  
EXTERNAL EXAMINER  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

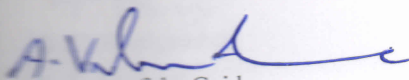
(An Autonomous Institution Affiliated to Anna University)



MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
Mr. P.Manigandan(14G45) and Mr. B.Mahesh (14G137) of Eighth  
Semester B.E. (Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide

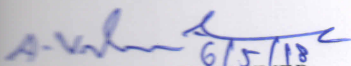
  
Signature of H.D.M.E

Station: Madurai

Date: 06/05/18

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Submitted for project work held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 06/05/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
for H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated to Anna University)




MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
Mr. N.Ranjith (14G77) and Mr. T.Kanagaraj (14G130) of Eighth Semester  
B.E. (Mechanical Engineering) during the year 2017-2018.

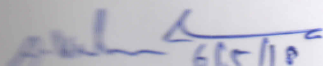
  
Signature of the Guide

  
Signature of H.D.M.E


Station: Madurai

Date: 06/05/2018

Submitted for project work held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 06/05/2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING


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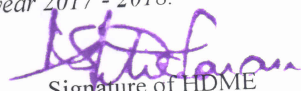
MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project & Viva Voce done by Mr. NISHESH, J. (14G43) and Mr. NISSHOK KUMAR, M. (14G61) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

  
Signature of the Guide  
(Dr. PRABALAN)


  
Signature of HDME  
(Dr. S MURALIDHARAN)

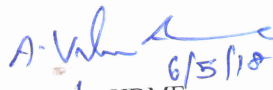
Station: Madurai

Date: 5.05.2018

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai - 625 015, on 6.05.2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
for HDME  
6/5/18



# THIAGARAJAR COLLEGE OF ENGINEERING

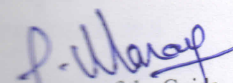
(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)


MADURAI-625 015



## CERTIFICATE

*Certified that this is a bonafide record of the 14ME880 Project done by  
Mr. PRADEEP, M.S (14G68) and Mr. SRIVARU SUNDARAM, P (14G94) of  
English Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.*

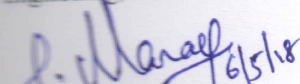
  
Signature of the Guide  
(Dr. P. MARAN)

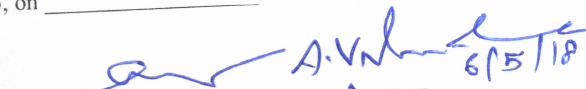
  
Signature of HDME  
(Dr. S. MURALIDHARAN)

Station: Madurai

Date: 5/5/18

Submitted for Viva-voce Examination held at Thiagarajar College of  
Engineering, Madurai -625 015, on \_\_\_\_\_.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

for HDME



# THIAGARAJAR COLLEGE OF ENGINEERING

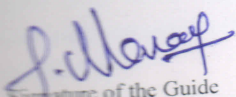
(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)


MADURAI-625 015



## CERTIFICATE

Certified that this a bonafide record of the 14ME880 Project & Viva  
Voice done by Mr. R.C.P.Sankar (14G82) and Mr. T.A.Sathish (14G85) of  
Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

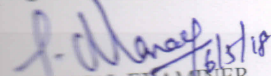
  
Signature of the Guide  
Dr. P. MARAN

  
Signature of HDME  
Dr. S. MURALIDHARAN


Station: Madurai

Date: 05.05.2018

Submitted for Viva-voice Examination held at Thiagarajar College of  
Engineering, Madurai -625 015, on 06.05.2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
for HDME 6/5/18

# THIAGARAJAR COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated to Anna University)

MADURAI - 625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
Mr. T. SATHYANANDI (14G81) and Mr. M. SARAVANA BAVA (14G84) of  
Eggn Semester B.E. (Mechanical Engineering) during the year 2017-2018.

*[Signature]*  
Signature of the Guide

*[Signature]*  
Signature of H.D.M.E

Name: Madurai

Date: 5-5-2018

Submitted for Vice-voce Examination held at Thiagarajar College of  
Engineering, Madurai - 625 015, on 6.5.2018

*[Signature]*  
INTERNAL EXAMINER

*[Signature]*  
EXTERNAL EXAMINER  
*[Signature]*  
H.D.M.E. 6/5/18



# THIAGARAJAR COLLEGE OF ENGINEERING

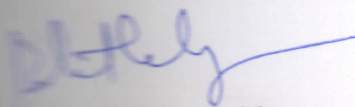
(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.




## BONAFIDE CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
Mr. P. DEVIPRASATH (Reg.No.14G18) Mr. V. GOKULA KRISHNAN  
(Reg.No.14G23) and of Eighth Semester B.E. Mechanical Engineering during  
the year 2017 - 2018.

  
Signature of the Guide


Station: Madurai

  
Signature of H.D.M.E

Date: 06.05.2018.

---

Submitted for Viva-Voce examination held at Thiagarajar College of  
Engineering, Madurai – 625 015, on 06.05.2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E. nominee

# THIAGARAJAR COLLEGE OF ENGINEERING


(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

*Certified that this is a bonafide record of the 14ME880 Project done by Mr. SATHIYAN, R (14G28) and Mr. SATHIYA RAJAN, D (14G87) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.*

  
Signature of the Guide  
(Dr. S. KARTHIKEYAN)

  
Signature of HDME  
(Dr. S. MURALIDHARAN)

Station: Madurai  
Date: 06/05/18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai - 625 015, on 06/05/2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME Nominee



# THIAGARAJAR COLLEGE OF ENGINEERING

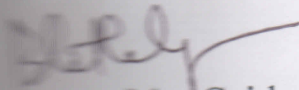
(An Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

**MADURAI-625 015**

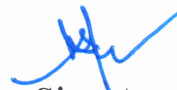


## CERTIFICATE

Certified that this is a bonafide record of the **14ME880-** final year project done by **S.KISHORE RAJA (14G39)** and **M.S.VISHNU (14G316)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.



Signature of the Guide

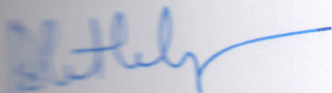


Signature of H.D.M.E

Station: Madurai

Date: 6/5/18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 6/5/18.



INTERNAL EXAMINER



EXTERNAL EXAMINER



H.D.M.E Nominee

# THIAGARAJAR COLLEGE OF ENGINEERING

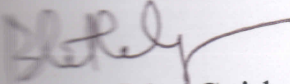
(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the **14ME880-** final year project done by **S.KISHORE RAJA (14G39)** and **M.S.VISHNU (14G116)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

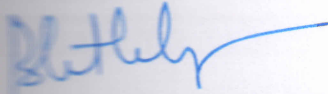
  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

Date: 04/05/18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 6/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E Nominee



# THIAGARAJAR COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work & Viva Voice done by **Mr. R.ARVIND (14G09)** and **Mr. P.EASHWAR (14G21)** of Eight Semester B.E. (Mechanical Engineering) during the year 2017-2018.

Signature of the Guide

Signature of H.D.M.E

Station: Madurai

Date: 6/5/18

Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 6/5/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

H.D.M.E. Nominee

# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. M. Balaharikrishnan (14G10)** and **Mr. R. Manivasagan (14G139)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

Signature of the Guide

Signature of HDME

Station: Madurai

Date: 04/05/2018

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 06/05/2018.

INTERNAL EXAMINER

EXTERNAL EXAMINER

HDME Nominee



# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by Mr. K.R. RAM SURAJ (14G75) and Mr. G. SRIVISHNU (14G95) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

Signature of the Guide

Signature of HDME

Station: Madurai

Date: 4-5-18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 6.05.18.

INTERNAL EXAMINER

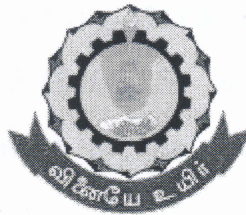
EXTERNAL EXAMINER

HDME Nominee

# THIAGARAJAR COLLEGE OF ENGINEERING

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MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 - project work & viva voce done by **Mr. J.VINIX RAJ (14G115)** and **Mr.P.ANANTHAN (14G122)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

Signature of the Guide  
Dr. A. SAMUEL RAJA  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL  
ENGINEERING)

Signature of HDME  
(Dr.S.MURALIDHARAN  
ASSOCIATE PROFESSOR AND  
HEAD OF THE DEPARTMENT  
OF MECHANICAL ENGINEERING)

Station: Madurai

Date: 05.05.2018

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,  
Madurai - 625 015, on 06.05.2018.

INTEREXAMINER

EXTERNAL EXAMINER

HDME Nominee



# THIAGARAJAR COLLEGE OF ENGINEERING



(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

**MADURAI-625 015**



## CERTIFICATE

Certified that this is a bonafide record of the **14ME880** – Project done by  
**A.WOHEAMED ANSARUDEEN (14G51)** and **A.SELVAKUMAR (14G88)**  
of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

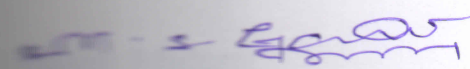
  
  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

Date: 06-05-2018

Submitted for Viva-voce Examination held at Thiagarajar College of  
Engineering, Madurai – 625 015, on 06/05/2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E Nominee

# THIAGARAJAR COLLEGE OF ENGINEERING


(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 - project done by  
K.S.RAAGUL (14G70) and T.J.VIGNESHWARAN (14G113) of Eighth  
Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

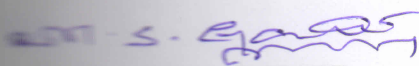
  
Signature of the Guide

  
Signature of HDME

Station: Madurai

Date:

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 06/05/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME Nominee

MAY 2018



# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this a bonafide record of the **14ME880** project done by **Mr.D.SURESH KUMAR (14G98)** and **Mr.A.KARTHICK PANDIYAN (14G131)** of Eighth Semester B.E-Mechanical Engineering during the academic year **2017 - 2018**.

*M.S. Ganesan*  
Signature of the Guide

*[Signature]*  
Signature of HDME

Station: Madurai

Date: 5-5-18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,

Madurai - 625 015, on 6-5-18.

*M.S. Ganesan*  
INTERNAL EXAMINER

*[Signature]*  
EXTERNAL EXAMINER

*[Signature]*  
HDME Nominee

# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated

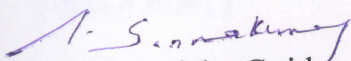
To Anna University)

**MADURAI-625 015**



## CERTIFICATE

Certified that this is a bonafide record of the **14ME880 Project** done by **Mr. N.VIGNESH (14G112)** and **Mr. B.JEEVA SUBRAMANIAM (14G128)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018

  
Signature of the Guide

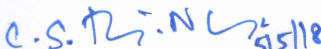
  
Signature of HDME

Station: Madurai

Date: 04-05-18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05-05-18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME



# THIAGARAJAR COLLEGE OF ENGINEERING

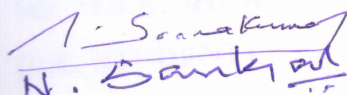
(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project by  
Mr. **KISHORE.M.J** (14G38) and Mr. **MANOJKUMAR.S** (14G47) of  
Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

  
N. Sankaranarayanan  
Signature of the Guide

  
Signature of HDME

Station: Madurai

Date: 06-05-18

Submitted for Viva-voce Examination held at Thiagarajar College of  
Engineering, Madurai -625 015, on 05-05-18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME

# THIAGARAJAR COLLEGE OF ENGINEERING

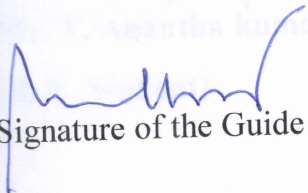
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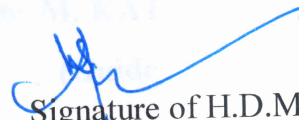


MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. T. Anantha kumar(14G06)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide

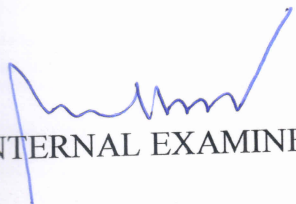
  
Signature of H.D.M.E


Station: Madurai

Date: 04.05.18

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Submitted for project viva voce held at Thiagarajar College of Engineering, Madurai – 625 015, on 05.05.18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E



# THIAGARAJAR COLLEGE OF ENGINEERING

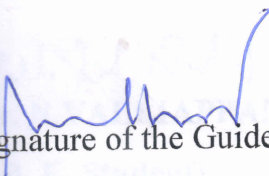
(An Autonomous Institution Affiliated to Anna University)



MADRURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. N. VALLIAPPAN (14G106)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

Date: 04.05.18

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Submitted for project viva voce held at Thiagarajar College of Engineering, Madurai – 625 015, on 05.05.18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E

# THIAGARAJAR COLLEGE OF ENGINEERING

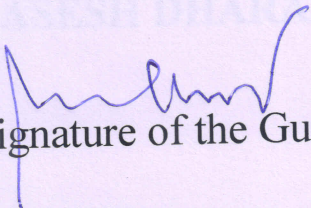
(A Govt. Aided ISO: 9001: 2008 Certified Autonomous Institution Affiliated to Anna University)

MADURAI-625 015



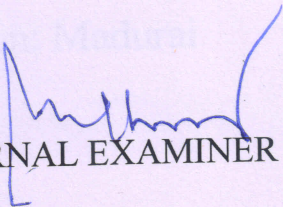
## CERTIFICATE

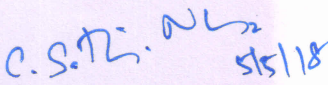
*Certified that this is a bonafide record of the 14ME880 Project Work by Mr. RASESH DHARAN A B (14G78) and Mr. SHARON SAMVEL.R (14G89) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.*

  
Signature of the Guide

  
Signature of HDME

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai -625015, on 05/05/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME



# THIAGARAJAR COLLEGE OF ENGINEERING

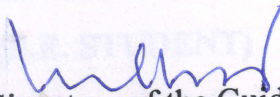
(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work done by **K.SURESH** (14G145) of Eight Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

  
Signature of the Guide

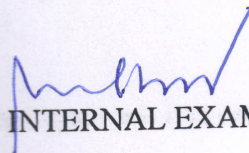
  
Signature of H.D.M.E

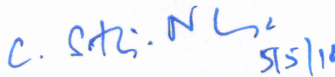
Station: Madurai

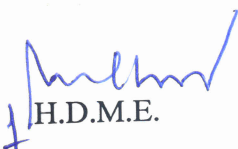
Date: 04.05.18

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Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05.05.18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.

# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work by  
Mr. YOGESH KUMAR. S (14G118) and Mr. SATHISH.E (14G143) of Eighth  
Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

*M. Karthi*  
Signature of the Guide

(MR. M. KARTHIC  
ASSISTANT PROFESSOR  
DEPARTMENT OF  
MECHANICAL  
ENGINEERING )

*N. Sankar*  
Signature of Co-guide

(DR.N. SANKARA  
SUBRAMANIAN  
ASSOCIATE PROFESSOR  
DEPARTMENT OF  
PHYSICS)

*[Signature]*  
Signature of HDME

(DR. S.MURALIDHARAN  
ASSOCIATE PROFESSOR  
AND HEAD OF  
DEPARTMENT OF  
MECHANICAL  
ENGINEERING)

Station: Madurai

Date: 4/5/2018

Submitted for Viva-voce Examination held at Thiagarajar College of  
Engineering, Madurai -625 015, on 5/5/2018.

*M. Karthi*  
INTERNAL EXAMINER

*C. S. R. N. L.*  
EXTERNAL EXAMINER

*[Signature]*  
HDME



# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

*Certified that this is a bonafide record of the 14ME880 Project Work by  
Mr. RAGHUNANDHAN.K.S (14G71) and Mr. VIGNESH KUMAR (14G110) of  
Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.*

*[Signature]*  
Signature of the Guide

(DR S.SARAVANA PERUMAAL  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL  
ENGINEERING )

*[Signature]*  
Signature of HDME

( DR S.MURALIDHARAN  
ASSOCIATE PROFESSOR AND HEAD  
DEPARTMENT OF MECHANICAL  
ENGINEERING )

Station: Madurai  
Date: 03.05.2018

Submitted for Viva-voce Examination held at Thiagarajar College of  
Engineering, Madurai -625 015, on 05/05/2018.

*[Signature]*  
INTERNAL EXAMINER

*C.S.R.N.*  
EXTERNAL EXAMINER

*[Signature]*  
HDME

# THIAGARAJAR COLLEGE OF ENGINEERING

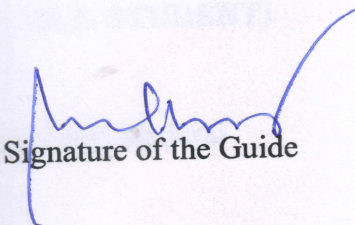
(An Autonomous Institution Affiliated to Anna University)


MADURAI – 625 015.



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work & Viva Voce done by **Mr T. Swathik Prasanna (14G101)** of Eight Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

  
Signature of the Guide

  
Signature of H.D.M.E

Station: Madurai

Date: 04.05.18

---

Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05.05.2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME



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## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work by Mr. SUNDHARA RAJAN (14G97) and Mr. THARIC AKRAM (14G104) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

*M. Karthi*  
4/5/18  
Signature of the Guide

(MR. M. KARTHIC  
ASSISTANT PROFESSOR  
DEPARTMENT OF  
MECHANICAL  
ENGINEERING )

*DR.N. Kottaisamy*  
Signature of Co-guide

(DR.N. KOTTAISAMY  
ASSOCIATE PROFESSOR  
AND HEAD OF  
DEPARTMENT OF  
CHEMISTRY)

*DR.S. Muralidharan*  
Signature of HDME

(DR.S.MURALIDHARAN  
ASSOCIATE PROFESSOR  
AND HEAD OF  
DEPARTMENT OF  
MECHANICAL  
ENGINEERING)

Station: Madurai

Date: 04-05-18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai -625 015, on 05-05-2018.

*M. Karthi*  
5/5/18  
INTERNAL EXAMINER

*C. S. N. L.*  
5/5/18  
EXTERNAL EXAMINER

*DR.S. Muralidharan*  
HDME

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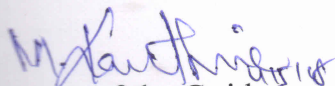
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## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by Mr. PRABHAKARAN.P (14G64) and Mr. SANKAR GANESH.K. G (14G83) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

  
Signature of the Guide

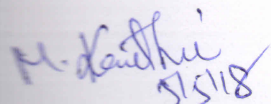
  
Signature of HDME


Station: Madurai


Date: 4-5-2018

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Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai -625 015, on 5-5-2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME



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Certified that this is a bonafide record of the 14ME880 Project Work by **Mr.M.HARINARAYANAN (14G25)** and **Mr.M.KALIDHAS (14G32)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

*M. Karthi*  
Signature of the Guide

(Mr. M.KARTHIC  
ASSISTANT PROFESSOR  
DEPARTMENT OF  
MECHANICAL  
ENGINEERING )

*N. Sankar*  
Signature of the co-Guide

(Dr.N.SANKARA SUBRAMANIAN  
ASSOCIATE PROFESSOR  
DEPARTMENT OF  
PHYSICS)

*[Signature]*  
Signature of HDME

(Dr S.MURALIDHARAN  
HEAD  
DEPARTMENT OF  
MECHANICAL  
ENGINEERING)

Station: Madurai

Date: 04/05/2018

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai -625 015, on 05.05.2018.

*M. Karthi*  
INTERNAL EXAMINER

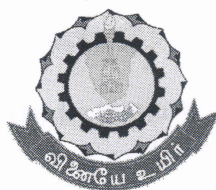
*C.S.T. N*  
EXTERNAL EXAMINER

*[Signature]*  
HDME

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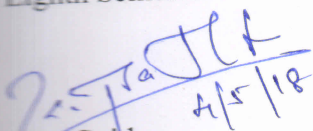
(A Govt. Aided ISO 9001:2008 Certified Autonomous Institution, Affiliated to Anna University).

MADURAI – 625 015.



## Certificate of Evaluation

Certified that this 14ME880 – Project Report titled “*CHRACTERIZATION OF COMPOSITES WITH RECYCLED PARTICLES TO CONTROL AIR POLLUTION*” is the bonafide work of **Mr. Bhushan Suriya. G (14G13)** and **Mr. Chellapandi. M. (14G15)** of Eighth Semester B.E – Mechanical Engineering during the academic year 2017 – 2018.

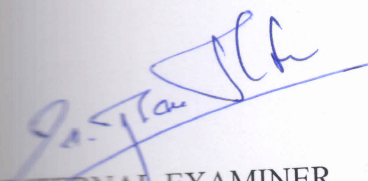
  
Project Guide


  
H.D.M.E.

Station : Madurai

Date : 4/5/18

Submitted for the final review 14ME880-Project Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015 on 5/5/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



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## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work by  
**Mr. DEEPAK KUMAR V** of Eighth Semester B.E. (Mechanical Engineering)  
during the year 2017 - 2018.

Signature of the Guide

(Dr. SIVASANKARAN R  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL  
ENGINEERING )

Signature of HDME

( Dr. MURALIDHARAN S  
ASSOCIATE PROFESSOR AND HEAD  
OF DEPARTMENT OF MECHANICAL  
ENGINEERING )

Station: Madurai

Date:

Submitted for Viva-Voce Examination held at Thiagarajar College of  
Engineering, Madurai -625 015, on 5/5/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

HDME

# THIAGARAJAR COLLEGE OF ENGINEERING

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## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr.E.GANESH(14G125)** and **Mr. D. HARI RAJ(14G126)** of Eighth Semester **B.E. (Mechanical Engineering)** during the year 2017-2018.

*T. Prakash*

Signature of the Guide

*[Signature]*

Signature of H.D.M.E

Station: Madurai

Date: 04/05/2018

---

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05/05/2018

*T. Prakash*

INTERNAL EXAMINER

*C. S. N. L.*  
5/5/18

EXTERNAL EXAMINER

*[Signature]*  
5/5/18

H.D.M.E.



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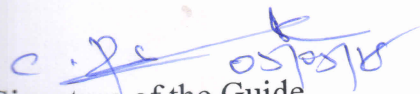


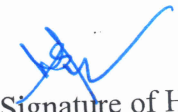
**MADRURAI – 625 015.**

**CERTIFICATE**

Certified that this is a bonafide record of 14ME880-Project done by

**Mr. K. KISHORE (14G040), Mr. K. NIVASH (14G140)** of Eighth Semester B.E.  
(Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide

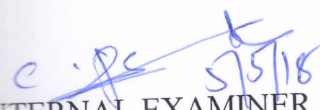
  
Signature of H.D.M.E

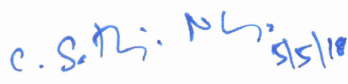
Station: Madurai

Date: 05.05.18

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Submitted for project work held at Thiagarajar College of Engineering, Madurai – 625  
015, on 05.05.18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E

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## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. K.RAJITH KUMAR(14G121)** and **Mr.P.KRISHNA MATHAN(14G135)**  
of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

*T. Prakash*

Signature of the Guide

*H.D.M.E.*

Signature of H.D.M.E

Station: Madurai

Date: 04/05/2018

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 5/5/2018

*T. Prakash*

INTERNAL EXAMINER

*C. S. Thi. N. L.*  
5/5/18  
EXTERNAL EXAMINER

*C. S. Thi. N. L.*  
H.D.M.E.



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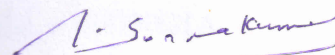
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**MADURAI – 625 015.**



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. T.MANICKAM** (14G44) and **Mr. I.MONGIA** (14G53) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

  
Signature of the Guide


  
Signature of H.D.M.E

Station: Madurai

Date: 06-05-18

---

Submitted for Viva-Voce examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05/05/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.

# THIAGARAJAR COLLEGE OF ENGINEERING

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MADURAI-625 015



## CERTIFICATE

*Certified that this is a bonafide record of the 14ME880 Project done by J. RISHWANTH - 14G79 and R. ABHILASH - 14G120 of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.*

*[Signature]*  
05/05/18

Signature of the Guide

*[Signature]*

Signature of HDME

Station: Madurai

Date:

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 5/5/18.

*[Signature]*  
05/05/18

INTERNAL EXAMINER

*[Signature]*

EXTERNAL EXAMINER

*[Signature]*

HDME



# THIAGARAJAR COLLEGE OF ENGINEERING


(An Autonomous Institution Affiliated to Anna University)



MADURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project work done by **Mr. M.Kavin (14G134)** and **Mr. R.Karthikeyan (14G35)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide  
(Dr.ML. MAHADEVAN)


  
Signature of H.D.M.E

Station: Madurai

Date: 04/05/2018

---

Submitted for project work held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05/05/2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.

# THIAGARAJAR COLLEGE OF ENGINEERING


(An Autonomous Institution Affiliated to Anna University)




MADRURAI – 625 015

## CERTIFICATE

Certified that this is a bonafide record of 14ME880-Project done by **Mr. S. KITHER MOHAMED DASTHAKIR (14G041), Mr. S. PARAMESHWARAN (14G063)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

  
Signature of the Guide  
(ML. MAHADEVAN) 4/5/2018


  
Signature of H.D.M.E


Station: Madurai

Date: 4/5/2018

---

Submitted for project work held at Thiagarajar College of Engineering, Madurai – 625 015, on 05/05/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
H.D.M.E.



# THIAGARAJAR COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated to Anna University)



MADRURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. S. Bharaneeswaran (14G123)** and **Mr. E. K. Sanjeev(14G142)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

Signature of the Guide

Signature of H.D.M.E

Station: Madurai

Date: 03/05/18

---

Submitted for project work held at Thiagarajar College of Engineering, Madurai – 625 015, on 05/05/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

H.D.M.E.

# THIAGARAJAR COLLEGE OF ENGINEERING


(An Autonomous Institution Affiliated to Anna University)


MADURAI – 625 015



## CERTIFICATE

*Certified that this is a bonafide record of 14ME880-Project done by Mr.N.MOHAN KERISH (14G052) and Mr.U.K.HARIRAM SAIT (14G127) of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.*

  
Signature of the Guide  
(Dr.S.MURALIDHARAN  
ASSOCIATE PROFESSOR AND  
HEAD OF THE DEPARTMENT)

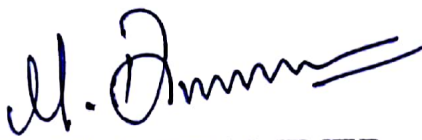
  
Signature of H.D.M.E  
(Dr.S.MURALIDHARAN  
ASSOCIATE PROFESSOR AND  
HEAD OF THE DEPARTMENT)

Station: Madurai

Date: 05/05/18

Submitted for viva-voce held at Thiagarajar College of Engineering, Madurai – 625 015, on \_\_\_\_\_.

  
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EXTERNAL EXAMINER

  
H.D.M.E.



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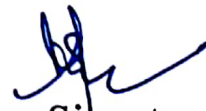


## CERTIFICATE

Certified that this is a bonafide record of the **14ME880** Project done by **Ms. K S Shridhivya (14G91)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

  
04/05/18.

Signature of the Guide



Signature of HDME

Station: Madurai

Date:

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Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05/05/18.



INTERNAL EXAMINER



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HDME

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MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the **14ME880** Project done by **Mr. R. MESHAC (14G050)** and **Mr. G. VIGNESH (14G111)** of **Eighth Semester B.E. (Mechanical Engineering)** during the year **2017 – 2018**.

  
04/05/18.

Signature of the Guide


  
Signature of HDME


Station: Madurai

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Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05/05/18.

  
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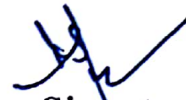


## CERTIFICATE

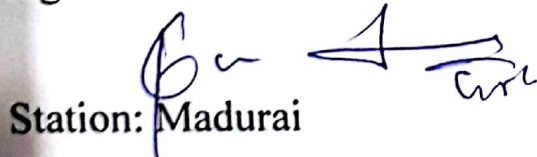
Certified that this is a bonafide record of the 14ME880 Project done by **Mr. C. Thirumoolasithar (14G105)** and **Mr. M. Vigneshwaran (14G114)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017– 2018.

  
04/05/18

Signature of the Guide



Signature of HDME


  
Station: Madurai

Date:

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05/05/18.



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## CERTIFICATE

Certified that this is a bonafide record of the **14ME880** Project done by **Mr. T. ABISHEK (14G04)** and **Mr. P. BALAMUKESH (14G11)** of **Eighth Semester B.E. (Mechanical Engineering)** during the year **2017 – 2018**.

  
24/05/18

Signature of the Guide



Signature of HDME

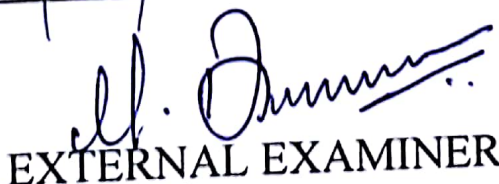
Station: Madurai

Date:

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05/05/18.



INTERNAL EXAMINER

  
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(A Govt. Aided ISO 9001: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. A Sri Krishna (14G93)** and **Mr. R. Manivannan (14G46)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

Signature of the Guide

Signature of HDME

Station: Madurai

Date:

---

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on \_\_\_\_\_.

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# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by **Mr. M. Manoj Prabakar (14G48)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

Signature of the Guide

Signature of HDME

Station: Madurai

Date: 04.05.2018

---

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 05.05.2018.

INTERNAL EXAMINER

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HDME



# THIAGARAJAR COLLEGE OF ENGINEERING

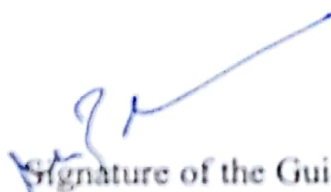
(A Govt. Aided ISO : 2008 Certified Autonomous Institution Affiliated To Anna  
University)

MADURAI-625 015



## CERTIFICATE


*Certified that this is a bonafide record of the 14ME880 Project  
done by Mr. A. ABDUL JABBAR WASITH(14G01.) and Mr. R.DHINESH  
KUMAR (14G19) of Eighth Semester B.E. (Mechanical Engineering)  
during the year 2014 – 2018.*

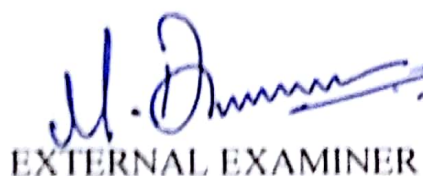
  
Signature of the Guide

  
Signature of HDME

Station: Madurai  
Date: 02/05/18

Submitted for Viva-voce Examination held at Thiagarajar College of  
Engineering, Madurai – 625 015, on 5.5.2018.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME

# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided ISO: 2008 Certified Autonomous Institution Affiliated To Anna University)

MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work by **Mr. ANANDA KUMAR J M (14G05)** and **Mr. DEEPAK A (14G17)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

Signature of the Guide

(Dr. KARTHIKEYAN B  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL  
ENGINEERING)

Signature of HDME

(Dr. MURALIDHARAN S  
ASSOCIATE PROFESSOR AND HEAD  
DEPARTMENT OF MECHANICAL  
ENGINEERING)

Station: Madurai

Date: 4/5/18

---

Submitted for Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai -625 015, on 5/5/18.

INTERNAL EXAMINER

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# THIAGARAJAR COLLEGE OF ENGINEERING

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MADURAI-625 015



## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project Work by **Mr. MURUGAN.M (14G54)** and **Mr. SIVARAMAKRISHNAN.R (14G92)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 - 2018.

Signature of the Guide

Signature of HDME

Station: Madurai

Date: 4/5/18

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 5.5.2018.

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## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project work done by **Mr .S.SHIVRAM (14G90)** and **Mr. R.ARUN KUMAR (14G08)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

Signature of the Guide

( Mr.C.VIGNESH  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL  
ENGINEERING )

Signature of HDME

(Dr S.MURALIDHARAN  
ASSOCIATE PROFESSOR AND HEAD  
DEPARTMENT OF MECHANICAL  
ENGINEERING )

Station: Madurai

Date: 4/5/18

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Submitted for Viva-voce Examination held at Thiagarajar College of Engineering, Madurai – 625 015, on 5/5/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

HDME



# THIAGARAJAR COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated to Anna University)



MADRURAI – 625 015.

## CERTIFICATE

Certified that this is a bonafide record of the 14ME880 Project done by  
**Mr. M. NITHIN KRISHNA (14G62)** and **Mr. E. SURYA KUMAR (14G99)**  
of Eighth Semester B.E. (Mechanical Engineering) during the year 2017-2018.

Signature of the Guide

Signature of H.D.M.E

Station: Madurai

Date: 04/05/2018

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Submitted for project work held at Thiagarajar College of Engineering, Madurai  
– 625015, on 05/05/2018.

INTERNAL EXAMINER

EXTERNAL EXAMINER

H.D.M.E.

# THIAGARAJAR COLLEGE OF ENGINEERING

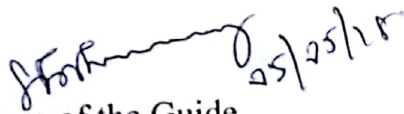
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MADURAI-625 015



## CERTIFICATE


Certified that this is a bonafide record of the 14ME880 Project done by **Mr. M.JOSHUA SAMUEL (14G31)** and **Mr. K.B.KRISHNA (14G42)** of Eighth Semester B.E. (Mechanical Engineering) during the year 2017 – 2018.

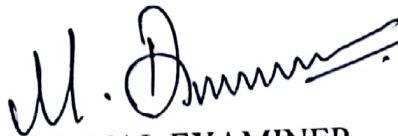
  
Signature of the Guide

  
Signature of HDME

Station: Madurai  
Date:

Submitted for Viva-voce Examination held at Thiagarajar College of Engineering,  
Madurai – 625 015, on 05/05/18.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

  
HDME