

### SREE SAKTHI ENGINEERING COLLEGE

TNEA Admission Code 2673

OOTY MAIN ROAD, KARAMADAI, | MOB: +91 92445 04444, +91 92445 02277 COIMBATORE- 641104. INDIA | Web: www.sreesakthi.edu.in

Affiliated to Anna University & Approved by AICTE, Accredited by NAAC

3.3.1

NUMBER OF PH.DS REGISTERED PER ELIGIBLE TEACHER



# ANNA UNIVERSITY CHENNAI - 600 025

## PROVISIONAL CERTIFICATE

Folio No .:

MAR012068

This is to certify that the candidate has qualified for the award of Degree of Doctor of Philosophy in compliance of the UGC Regulations 2009 as detailed below:

Name

PRADHAP RAJ M

Registration Number

4083032148

Degree

Ph.D.

Department/Centre

MECHANICAL ENGINEERING

Faculty

MECHANICAL ENGINEERING

Date, Month & Year of Viva-Voce

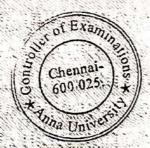
Examination held

08.05.2015

Title of the Thesis

STUDY AND PERFORMANCE IMPROVEMENTS

OF SOLAR AIR HEATER



Dr.R. PRABHU

SAKIHLENGINEERING COL

Controller of Examinations

-Menna**/ - 800 026** 

Vale

21-MAY-15



## ANNA UNIVERSITY CHENNAI - 600 025

### PROVISIONAL CERTIFICATE

Folio No.: MAR012134

This is to certify that the candidate has qualified for the award of Degree of Doctor of Philosophy in compliance of the UGC Regulations 2009 as detailed below:

Name : BENJAMIN LAZARUS S

Registration Number 7077032108

Degree Ph.D

Department/Centre : MECHANICAL ENGINEERING

Faculty: MECHANICAL ENGINEERING

Date, Month & Year of Viva-Voce

Examination held 25.09.2015

Title of the Thesis STUDIES ON MECHANICAL PROPERTIES

OF RANDOM AND WOVEN FIBRE SUNHEMP

POLYESTER COMPOSITES

Chennal - 600 025

Date: 01-OCT-15

PRINCIPAL

Dr.R. PRABHU

PRINCIPAL,

SAKTHI ENGINEERING COL

COMMENTORE-647 194

Controller of Examinations

# ANNA UNIVERSITY COMBATORE

(Established under Act No.42 of 2006 by the Government of Tamil Nadu)

Excellence in Technical Education and Research

ANNADASAN, M.Tech., Ph.D., 10R RESEARCH

CENTER FOR RESEARCH

**Academic Campus** Jothipuram post, Colmbatore - 641 047

AUCBE/CFR/ Ph.D./Reg.No.7077032108/CFM/

Date:

09-09-2009

Sub: Anna University Colmbatore - Ph.D., Programme - Provisional Registration of Research Scholars - Confirmation - Orders issued.

Ref: Minutes of Second Doctoral committee meeting held on 17.08.2009 at Kumaraguru College of Technology, Coimbatore-641 006.

The Provisional Registration granted to Mr./Ms.Benjamin Lazarus:S (Reg.No. 7077032108) to do Ph.D., Programme in Anna University Coimbatore is Confirmed with effect from 26.07.2007 and he/she is permitted to proceed with his/her Research Work further, as recommended by the Doctoral Committee constituted for this research scholar.

To

Supervisor

Dr.V.Velmurugan

Professor and Head Department of Aeronautical Engineering, Kumaraguru College of Technology, Coimbatore-641 006.

Part Time Research Scholar through the Supervisor Mr. S.Benjamin Lazarus Assistant Professor, Department of Mechanical Engineering, The Kavery Engineering College, Mecheri, Salem-636 453

3. File:

RINCIPAL Dr.R. PRABHU PRINCIPAL. SAKTHI ENGINEERING COL COMBATORE-641 104

Phone: +91-422-6546655 • email: research@annauniv.ac.in • www.annauniv.ac.in

Fwd: Anna University – Synopsis Acceptance Mail – Reg.

Benjamin Lazarus (sblslr24@gmail.com)

Velgoudham\_v@yahoo.com;

Monday, 6 April 2015 6:13 PM

Forwarded message ------
From: DIRECTOR Research < cfr.annauniv@gmail.com>

Date: Wed, Oct 15, 2014 at 5:21 PM

Subject: Anna University - Synopsis Acceptance Mail - Reg.

To: sblslr24@gmail.com, velgoudham\_v@yahoo.com

Sī/Madam,

Name of the research scholar:BENJAMIN LAZARUS S Reg. No:7077032108

Sub: Anna University - Synopsis Acceptance Mail - Reg.

Synopsis submitted by the scholar is accepted and he/she shall be permitted to submit the thesis to the office as per Anna University norms.

DIRECTOR (RESEARCH)

Note: Please don't reply to this mail)



Regards, Benjamin Lazarus. 5 191 94432 05800 DrR. PRABHU
PRINCIPAL,
SAKTHI ENGINEERING COL
COMMENTORE-642 104

becass is only a journey not your destination



## ANNA UNIVERSITY, CHENNAI - 600 025 CENTRE FOR RESEARCH

POST SCRUTINY THESIS SUBMISSION FORM

1, Scholar Details:

Scholar Name: Mr./Ms. BENJAMIN LAZARUS S

Reg. No.: 7077032108

Region: AUT-COIMBATORE

Faculty: Mech

category : Part-Time

2. Thesis Details:

Tamil Abstract in PDF format : Yes

English Abstarct in PDF format : Yes

Full Thesis in PDF format : Yes

Necessary corrections prescribed by the scrutiny committee have been carriedout.

Date: 14-02-2015

Place: coimbatore

Signature of the scholar

Submission Date: 14-02-2015 15:06:51

Signature of the Supervisor

(Name with seal)

Dr. V. Vel Murugan M.E., Phd.,

Principal

Sree Sakthi Engineering College

Colmbatore - 641 104.

PRINCIPAL

Dr.R. PRABHU

PRINCIPAL.

SAKTHI ENGINEERING COL

COMMENTORE-641 104

# ANNA UNIVERSITY

(Established under Act No.42 of 2006 by the Government of Tamil Nadu) Excellence in Technical Education and Research CENTRE FOR RESEARCH

KANNADASAN, M. Tech., Ph.D., ECTOR-RESEARCH

UCBE/CFR/Ph.D/ Admission/April-2008.

GCT Campus, Coimbatore - 641013

Date: 25-04-2008.

Velmurugan, ociate Professor,

ociate Plansing College of Technology, Conditional Engineering, Kumaraguru College of Technology, batore 6.

Madam,

Sub: Ph.D Programme Provisional Registration Orders issued -Reg. Ref: Res.No.1.6 of the 1st Board of Research Meeting held on 19.04.2008

Jam directed to inform you that Mr./Ms. Gunasekar.N is permitted to register provisionally for Ph.D. Programme on the April 2008 Tam directed to register provisionally for Ph.D. Programme on Time - Internal basis under the faculty of Mechanical Engineering in this University under your guidance in the April 2008

The programme fee will be collected at the Anna University Coimbatore, GCT Campus, Coimbatore-641 013 on 28.04.2008 at The programmed Draft. The Demand Draft should be obtained from any Nationalized Bank drawn in favour of the Director – by Delitaria by De ing in the Colleges affiliated to Anna University Coimbatore, or Rs.20,000/- (Rupees Eighteen Thousand Only ) for the Colleges affiliated to Anna University Coimbatore, or Rs.20,000/- (Rupees Twenty Thousand Only) for others.

The research scholar is directed to submit the enrolment form which is available in the university website within 20 days the date of payment of Programmee fee, otherwise it will be attributed that the research scholar has not completed the ission process in full and the Provisional Registration granted is liable for cancellation.

The 50% of the programme fee will be refunded if a candidate withdraws his / her admission within 30 days from the date imission and there after the programme fee will not be refunded. The caution deposit will be refunded in full subject to

The Registration Number of the research scholar is 4081032119 and quotes this registration number for all future spondence.

The research scholar will be governed by the regulations of the Programme of this University.

Director-Research

holar Mr/Ms.Gunasekar.N, Lecturer,

of Mechanical Engineering,

to

anakiammal College of Engineering & Technology, Kovaipudur, Coimbatore - 641 042. ad of the Institute No NOC

ad of the Department Mechanical Engineering No NOC

Dr.R. PRABHU PRINCIPAL SAKTHI ENGINEERING COL

COMBATORE-641 104

# ANNA UNIVERSITY

(Established under Act No.42 of 2006 by the Government of Tamil Nadu) Excellence in Technical Education and Research

## CENTRE FOR RESEARCH

KANNADASAN, M. Tech., Ph.D., CTOR-RESEARCH

GCT Campus,

Coimbatore - 641013

Lr. No. 003/Reg.No.4081032119 Ph.D./D.C/ dt: \$6 -06- 2008

Velmurugan, ciale Professor, natical Engineering, Braguru College of Technology, nbatore - 641 006.

Sub.: Ph.D. Programme - Mr. / Ms. Gunasekar.N, Research Scholar - Constitution of Doctoral

Mr. / Ms. Gunasekar.N, has been granted the Provisional Ph.D. Registration in the faculty of Mechanical Engineering the guidance of Dr.V.Velmurugan,, Accordingly a Doctoral Committee has been constituted comprising of the following the guine garding a Doctoral Committee there for the above research scholar as required by Clause 7 of the Ph.D. Re

| SL.<br>NO. | NAME OF THE SUPERVISOR/MEMBER                                                                                                 | DESIGNATION                   |  |
|------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--|
| <b>1</b> . | Dr.V.Velmurugan, Associate Professor, Aeronatical Engineering, Kumaraguru College of Technology, Coimbatore - 641 006.        | SUPERVISOR CUM<br>CHAIRPERSON |  |
| 2.         | Dr.P.Palanisamy, Associate Professor, Dept. of Mechanical Engineering, Kumaraguru College of Technology, Coimbatore - 641 006 | MEMBER                        |  |
| 3.         | Dr.K.Manomani, Senior Lecturer Dept. of Mechanical Engineering, Government College of Technology, Coimbatore - 641 013.       | MEMBER                        |  |

The Doctoral Committee shall meet within 3 weeks from the date of receipt of this communication to prescribe the course as per the annexure for the research scholar. The Committee shall function as per rules of the Ph.D. regulations. The irperson and all the members of the Doctoral Committee are eligible for Sitting Fee. Outside members are eligible for Conveyance as per Anna University: Coimbatore TA rules.

The Convener shall convene the meeting of the Doctoral Committee and send the progress report periodically. ereceipt of the proceedings be acknowledged.

DIRECTOR - RESEARCH

The Supervisor to:

> All Members, Stock File.

PRINCIPAL Dr.R. PRABHU **PRINCIPAL** 

SAKTHI ENGINEERING COL

COMMBATORE-647 104
email: research@annauniv.ac.in, www.annauniv.ac.in Phone: +91-422-2454571 • Fax: +91-422-2453838 •

# Rediffmail

bilbox of ngunaa@rediffmail.com

Cancel Print

From: DIRECTOR Research <cfr.annauniv@gmail.com>

To: ngunaa@rediffmail.com, velgoudham\_v@yahoo.com

subject: Anna University - Synopsis Acceptance Mail - Reg.

pate: Wed, 25 Feb 2015 15:23:43 IST

ST/Madam,

vame of the research scholar.GUNASEKAR N

Reg. No:4081032119

Sub: Anna University - Synopsis Acceptance Mail - Reg.

synopsis submitted by the scholar is accepted and he/she shall be permitted to submit the thesis to this fice as per Anna University norms.

DRECTOR (RESEARCH)

Note: Please don't reply to this mail)



Print Cancel

PRINCIPAL Dr.R. PRABHU PRINCIPAL. SAKTHI ENGINEERING COL

CONVIGATORE-641 104

### CENTRE FOR RESEARCH ANNA UNIVERSITY, CHENNAI - 600 025



# PROFORMA FOR SUBMISSION OF THESIS

registration

ame of the Scholar:

N. GUNASEKAR

Registration No:

4081032119

Contact No:

mail ID

.9842217067

ngunaa@rediffmail.com

Name of the Joint Supervisor: Dr. M. MOHANRAJ

Contact No:

lame of the Supervisor: Dr. V. VELMURUGAN 9442001697

Contact No:

granted, if any

9486411896

mail ID

velgoudham\_v@yahoo.com

Email ID

mohanrajbavan@gmail.com

itegory at the time of registration onth and Year of egistration

Part time April 2008

Change of category, if any Period of break of study

late of confirmation 11.08.2009 ate of completion of 31.03.2014

Date of completion of minimum period Extension of period

31.03.2011 Upto 30.09.2015 (25.03.2014)

aximum period ate of DC meeting for 14.02.2015 proval of synopsis

approved (mention date) Date of submission of thesis

27.03.2015

time

of for

Thesis submission

beyond 3

months after the submission of synopsis

BY);

fee details :

Extension

| mount (Rs.) | D.D.<br>No. · | D.D. Date | Name of the Bank | Branch |
|-------------|---------------|-----------|------------------|--------|
| 5,000/-     |               |           |                  |        |

Whether No Dues Certificate is enclosed

: Yes

y that the information furnished above are true and correct to the best of my knowledge.

gnature of the Scholar

of the Supervisor

VEL MURUGAN

Signature of the Joint Supervisor Dr. M. MOHANRIAUS MAL, Ph.D.

Professor,

Coimbatore - 641 032. INDIA.

Dealing Hand

Dr.R. PRABHU

PRINCIPAL, SAKTHI ENGINEERING COL COMMENTORE-641 104

hi Engineering College madai, Coimbatore



## CENTRE FOR RESEARCH

ANNA UNIVERSITY CHENNAI - 600 025



Telephone: +91-44-2235 7366/2235 0361 +91-44-2220 1213

Fax Email dirresearch@annauniv.edu dirresearch@gmail.com

Date: 06.07.2015

Toceedings. No. 7077032108/Ph.D./AR4

Ph.D. Programme - Constitution of Oral Examination Board - Conduct of Viva-Voce in respect of Mr.S.BENJAMIN LAZARUS - orders issued - Regarding.

The Vice-Chancellor is pleased to constitute an Oral Examination Board consisting of the following experts to conduct the viva-voce Examination in respect of the research Scholar, Mr.S.BENJAMIN LAZARUS.

Dr.V.Velmurugan

Professor Department of Mechanical Engineering Sree Sakthi Engineering College Coimbatore - 641104

2 Dr.N.V. Nanjundaradhya

Professor Department of Mechanical Engineering R V College of Engineering Mysore Road Bangalore - 560 059

3. Dr.P.K. Palani

Professor Department of Mechanical Engineering Government College of Technology Coimbatore - 641 013

Supervisor/Convener

Member

Member

The Convener of the Oral examination Board is requested to conduct the Oral examination within three months on a convenient date except Saturday, Sunday and public holidays. The Oral Examination for the above scholar shall be conducted as an "Open Defence Type". The outside members are eligible for TA/DA as per Anna University norms.

The convener shall conduct the Oral Examination after a minimum of one week from the date of Viva-Voce notification signed by the HoD/Director of Centre. A minimum of ten members excluding the examiners should attend the Viva-Voce examination.

A copy of the Viva-Voce notification and the minutes of the Oral Examination Board shall be sent to the undersigned as per the format specified in the Anna University website soon after the Viva-Voce is over for laking appropriate action. Download Viva-Voce proceedings from Supervisor Login.

The receipt of the proceedings may please be acknowledged.

To Dr.V. Velmurugan Professor

Department of Mechanical Engineering

Sree Sakthi Engineering College, Coimbatore - 641104

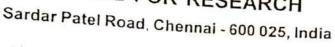
RINCIPAL Dr.R. PRABHU PRINCIPAL, SAKTHI ENGINEERING COL

CONVENTORE-641 104



# **ANNA UNIVERSITY**

# CENTRE FOR RESEARCH





nof. R. JAYAVEL, Ph.D.

Ref: No. 4081032119/Ph.D./AR4

Date: 18.11.2015

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr.N.GUNASEKAR, Ph.D. Research Scholar in the Faculty of Mechanical Engineering, Anna University, Chennai - 25 has successfully completed his Oral Examination held on 06.11.2015. The Oral Examination Board has recommended the award of Ph.D. degree to Mr.N.GUNASEKAR.

The Ph.D. degree is in compliance of the UGC Regulations 2009.

DIRECTOR (RESEARCH)

relieles

Dr.R. PRABHU
PRINCIPAL,
SAKTHI ENGINEERING COL
COIMBATORE-641 104

<sup>44 22357354, +91 44 22357366 •</sup> Fax : +91 44 22201213 • E-mail : dirresearch@annauniv.edu, dirresearch@gmail.com



#### ANNA UNIVERSITY, CHENNAI - 600 025 CENTRE FOR RESEARCH



Woceedings of the Ph.D. Viva-Voce Examination of Mr./Ms. GUNASEKAR.N held at 11:30 AM on 06.11.2015 in gminar Hall, Sree Sakthi Engineering College, Coimbatore - 641104

Ph.D. Viva-Voce Examination of Mr./Ms. GUNASEKAR.N (Reg. No. 4081032119) on his/her Ph.D. Thesis Entitled " WESTIGATIONS ON SOLAR PHOTOVOLTAIC THERMAL HYBRID HEAT PUMP WORKING WITH CIRCULAR AND RIANGULAR EVAPORATOR TUBE CONFIGURATIONS " was conducted on 06.11.2015 at 11:30 AM in the Seminar الرام Sree Sakthi Engineering College, Coimbatore - 641104.

og following Members of the Oral Examination Board were present:

Dr. P. Jayaraj, Assistant Professor, Department of Mechanical Engineering, National Institute of Technology Karnataka, Surathkal Mangalore

Indian Examiner

2 Dr. M. Sakthivel, Professor & Head, Department of Mechanical Engineering, Anna University Regional Centre, Navavoor Coimbatore Subject Expert

Or Velmurugan. V, Principal, Sree Sakthi Engineering College,

Supervisor & Convenor

Dr. Mohanraj, M, Professor, Hindusthan College of Engineering & Technology.

Joint Supervisor (If any)

he research scholar, Mr./Ms. GUNASEKAR.N presented the salient features of his/her Ph.D. work. This was followed by positions from the board members. The questions raised by the Foreign and Indian Examiners were also put to the bolar. The scholar answered the questions to the full satisfaction of the board members.

to corrections suggested by the Indian/Foreign examiner have been carried out and incorporated in the Thesis before the al examination.

and on the scholars research work, his/her presentation and also the clarifications and answers by the scholar to the lestions, the board recommends that Mr./Ms.GUNASEKAR.N be awarded Ph.D. degree in the Faculty of Mechanical

Dr. V. Vel Murugan Hamila

Indian Examiner

Subject Expert

Supervisor & Convenor

DY M MOHANRAJ

Joint Supervisor (If any)

Dr.R. PRABHU PRINCIPAL,

SAKTHI ENGINEERING COL

COMBATORE-641 104

Date 06-11-2015 09 11 30 Page 2 13



### ANNA UNIVERSITY, CHENNAI - 600 025 CENTRE FOR RESEARCH





#### Ph.D. / M.S. / M.Tech (By Research) - Synopsis / Thesis Registration details

Registration No.: 11180331013

Ph.D./M.S / M.Tech Ph.D.

**AUT-COIMBATORE** Region

**Registration No** 11180331013

**Date of Registration** Session: JAN Year: 2011

Name of the Scholar Dhanraj G

Gender Male

**Date of Birth** 19.02.1977

**Nationality** Indian

Community BC

**Email** g\_dhanraj2001@yahoo.com

**Mobile Number** 9443075767

**Faculty** Mechanical Engineering

Part-Time Category

**Title of the Synopsis** INVESTIGATION AND OPTIMIZATION OF MECHANICAL AND

METALLURGICAL PROPERTIES FOR HSLA STEEL IN SMAW AND TIG

**WELDING PROCESS** 

Broad area of research / Key words TIG WELDING, SMAW WELDING, OPTIMIZATION, MECHANICAL

PROPERTIES, METALLURGICAL ANALYSIS

**Special Character in the Title** no

Name of the Supervisor Dr. Vel Murugan V

> Designation Professor

**Department** Department of Mechanical Engineering

> Dr.R. PRABHU PRINCIPAL, SAKTHI ENGINEERING COL

COMBATORE-641 104

1/3

#### Ph.D. / M.S. / M.Tech (By Research) - Synopsis / Thesis Registration details

**Registration No.: 11180331013** 

Address Sree Sakthi Engineering College Karamadai,

Coimbatore - 641 104

**Mobile** 9442001697

Email velgoudham\_v@yahoo.com

Joint Supervisor Applicable

Name of the Joint Supervisor Dr. Balaji N

**Designation** Associate Professor

**Department** Department of Mechanical Engineering

Address Sri Krishna College of Engineering and Technology

Coimbatore - 641008

**Mobile** 9894451631

Email rajbalaji2001@yahoo.co.in

Date of DC meeting for approval of Synopsis 14.11.2018

Title of the seminar: MECHANICAL AND METALLURGICAL Date of the seminar: 26.06.2018

PROPERTIES OF HSLA STEEL

#### National / International Journal publications:

G.DHANRAJ, V.VELMURUGAN, N.BALAJI" METALLURGICAL JOURNAL OF BALKAN TRIBOLOGICAL ASSOCIATION BEHAVIOUR AND MECHANICAL PROPERTIES ON THE annexure\_1/13104772/2012/NOV 2018
SHIELDED METAL ARC WELDING AND TUNGSTEN INERT
GAS WELDING PROCESS OF DMR 249A STEEL

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PRINCIPAL,
SAKTHI ENGINEERING COL
COMMENTORE-641 104

Date: 15-11-2018 15:20:38

Signature of the scholar

Signature of the Supervisor (Name with seal)

3/3