



# Indra Ganesan

## COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai  
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

# NAAC DOCUMENTS

## QUALITY INDICATOR FRAME WORK

### CRITERION – 2

## TEACHING-LEARNING AND EVALUATION

SUBMITTED BY

# IQAC

INTERNAL QUALITY ASSURANCE CELL

## INDRA GANESAN COLLEGE OF ENGINEERING





**Indra Ganesan**  
**COLLEGE OF ENGINEERING**

Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli - 620 012  
Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai  
NAAC Accredited, 2(F) Status Institution by UGC



# 2019-2020

**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

**Key Indicator-Experiential Learning Method (90)**

**DEPARTMENT OF MECHANICAL  
ENGINEERING**



# Indra Ganesan

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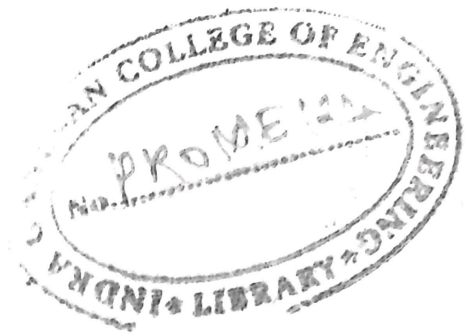
### DEPARTMENT OF MECHANICAL ENGINEERING

S.No	Project Title	No Students
1	DESIGN AND ANALYSIS OF CO <sub>2</sub> SCRUBBER FOR BOILER	04
2	ENHANCEMENT OF WIND TURBINE BLADE WITH GLASS FIBER AND FOAM CORE SANDWICH STRUCTURE	03
3	DESIGN AND FATIGUE ANALYSIS ON METAL MATRIX COMPOSITE CONNECTING ROD BY USING FINITE ELEMENT ANALYSIS	04
4	DESIGN ANALYSIS AND OPTIMISATION OF CHAIN SPROCKET	04
5	OPTIMIZATION OF DRILLING PARAMETERS OF SS304 BY TAGUCHI METHOD	03
6	EXPERIMENTAL ANALYSIS AND ENHANCEMENT OF MECHANICAL PROPERTIES OF HYBRID AL6082 & Si <sub>3</sub> N <sub>4</sub>	04

# DESIGN AND ANALYSIS OF CO<sub>2</sub> SCRUBBER FOR BOILER

A PROJECT REPORT

*Submitted by*



M.PRAVEEN KUMAR      811215114037

S.B.SAFFAR HUSSAIN      811215114043

M.SANTHOSH      811215114045

S.VINCENT PAUL RAJ      811215114059

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

**BACHELOR OF ENGINEERING**

**IN**

**MECHANICAL ENGINEERING**

**INDRA GANESAN COLLEGE OF ENGINEERING**

**TIRUCHIRAPPALLI – 620 012**

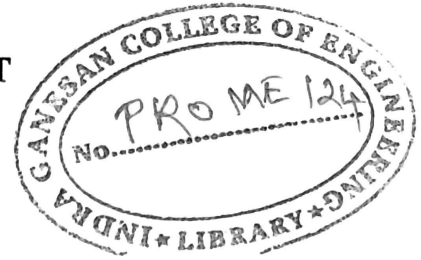
**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH 2019**

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**TIRUCHIRAPPALLI – 620 012**

**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH 2019**

**ANNA UNIVERSITY, CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

This is to certify that the project report "DESIGN AND ANALYSIS OF CO<sub>2</sub> SCRUBBER FOR BOILER" is the bonafide work of M.PRAVEEN KUMAR, S.B.SAFFAR HUSSAIN, M.SANTHOSH, S.VINCENT PAUL, RAJ. Who carried out the project work under my supervision.

  
SIGNATURE

Dr.K.BALAMURUGAN, M.Tech, Ph.D,  
HEAD OF THE DEPARTMENT

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SIGNATURE

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Department of Mechanical Engineering,  
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Submitted for the university viva-voce examination held on 25/3/19.....

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

**ENHANCEMENT OF WIND TURBINE BLADE  
WITH GLASS FIBER AND FOAM CORE  
SANDWICH STRUCTURE**

**A PROJECT REPORT**

*Submitted by*

**DINESH KUMAR B**

**GOPI P**

**KARUPAIYA R**

**KRISTEN KENNES K**



*In partial fulfilment for the award of the degree*

*Of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHANICAL ENGINEERING**

**INDRA GANESAN COLLEGE OF ENGINEERING  
TIRUCHIRAPPALLI – 620 012.**

**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH – 2019**

**ENHANCEMENT OF WIND TURBINE BLADE  
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**A PROJECT REPORT**

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TIRUCHIRAPPALLI – 620 012.**

**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH – 2019**



**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report "ENHANCEMENT OF WIND TURBINE BLADE WITH GLASS FIBER AND FOAM CORE SANDWICH STRUCTURE " is the bonafide work of "B.DINESH KUMAR, P.GOPI, R.KARUPAIYA, K.KRISTEN KENNES " who carried out the project work under my supervision.

  
SIGNATURE

Dr.K.BALAMURUGAN,M.Tech.,PhD.,

**HEAD OF THE DEPARTMENT**

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620 012.

Submitted for the university viva-voce Examination held on ...25.03.2019.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER

**DESIGN AND FATIGUE ANALYSIS ON METAL  
MATRIX COMPOSITE CONNECTING ROD BY  
USING FINITE ELEMENT ANALYSIS**

**A PROJECT REPORT**

*Submitted by*

SELVAKUMAR S	010209000007
THANUTHARAN K	010209000008
DEEPAK P	010209000009
—DANTON SURESH—	—010209000010—

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

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**INDIRA GANESAN COLLEGE OF ENGINEERING,  
TIRUCHIRAPPALLI - 620 011**

**ANNA UNIVERSITY - CHENNAI 600 025  
MARCH - 2019**

**DESIGN AND FATIGUE ANALYSIS ON METAL  
MATRIX COMPOSITE CONNECTING ROD BY  
USING FINITE ELEMENT ANALYSIS**

**A PROJECT REPORT**

*Submitted by*

**SELVAKUMAR S**

**811215114047**

**THAMOTHARAN K**

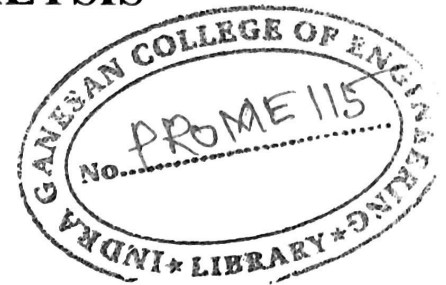
**811215114055**

~~**DEEPAK P**~~

~~**811215114302**~~

~~**WANTEN BERCK K**~~

~~**811215114311**~~



*in partial fulfilment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

**IN**

**MECHANICAL ENGINEERING**

**INDRA GANESAN COLLEGE OF ENGINEERING  
TIRUCHIRAPPALLI – 620 012.**

**ANNA UNIVERSITY: CHENNAI 600 025  
MARCH – 2019**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report “**DESIGN AND FATIGUE ANALYSIS ON METAL MATRIX COMPOSITE CONNECTING ROD BY USING FINITE ELEMENT ANALYSIS**” is the bonafide work of “**S.SELVA KUMAR, K.THAMOTHARAN, ~~P.DEEPAK,~~ ~~K.WANTEN BERCK~~**” who carried out the project work under my supervision.

*deleted  
Attendance place  
25/3/19*



**SIGNATURE**

**Dr.K.BALAMURUGAN,M.Tech.,  
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**SIGNATURE**

**Mr.C.SARAVANAN,  
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**Dr. S. BHARATHI RAJA,  
B.E.,M.Tech.,Ph.D.  
PRINCIPAL  
Indra Ganesan College of Engineering  
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Submitted for the university viva-voce Examination held on 25/3/19.....



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

**DESIGN ANALYSIS AND OPTIMISATION OF CHAIN  
SPROCKET**

**A PROJECT REPORT**

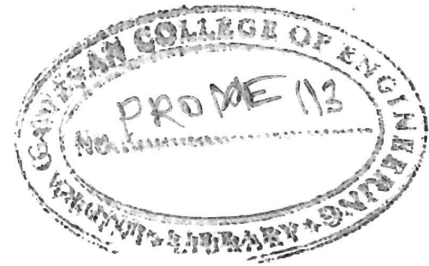
*Submitted by*

**RAMACHANTHIRAN M**

**RAMAKKANNAN A**

**SARAVANAN R**

**← PRASANTH C**



*In partial fulfilment for the award of the degree*

*Of*

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**TIRUCHIRAPPALLI**

**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH – 2019**

**DESIGN ANALYSIS AND OPTIMISATION OF  
CHAIN SPROCKET**

**A PROJECT REPORT**

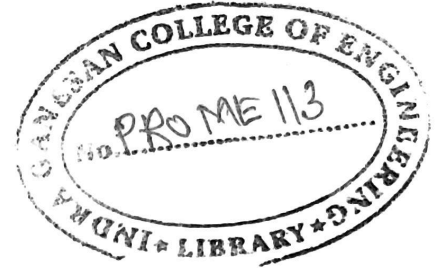
*Submitted by*

**RAMACHANTHIRAN M                      811215114039**

**RAMAKKANNAN A                        811215114040**

**SARAVANAN R                            811215114046**

~~**PRASANTH C                              811215114307**~~



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**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH – 2019**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report "DESIGN ANALYSIS AND OPTIMISATION OF CHAIN SPROCKET" is the bonafide work of "RAMACHANTHIRAN.M, RAMAKKANNAN.A, SARAVANAN.R, PRASANTH C" who carried out the project work under my supervision.

*Deleted Attendance lack*  
*25/3/19*

SIGNATURE

Dr.K.BALAMURUGAN, M.Tech, Ph.D.,  
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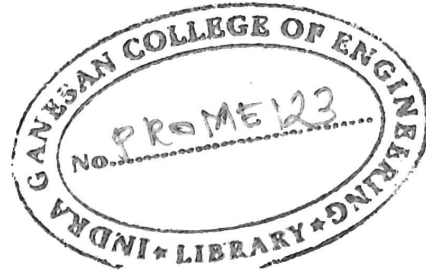
INTERNAL EXAMINER

EXTERNAL EXAMINER

# OPTIMIZATION OF DRILLING PARAMETERS OF SS304 BY TAGUCHI METHOD

A PROJECT REPORT

*Submitted by*



PRADEEP.N	811215114035
SABARINATHAN.P	811215114042
SHYAM SUNDAR.R	811215114048
KARTHICK.R	811215114304

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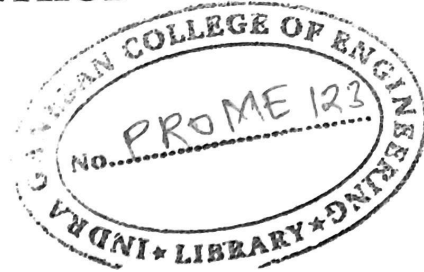
**MARCH 2019**



# OPTIMIZATION OF DRILLING PARAMETERS OF SS304 BY TAGUCHI METHOD

A PROJECT REPORT

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**TIRUCHIRAPPALLI – 620 012**

**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH 2019**

**ANNA UNIVERSITY: CHENNAI 600025**

**BONAFIDE CERTIFICATE**

This is to certified that the project report "OPTIMIZATION OF DRILLING PARAMETERS OF SS304 BY TAGUCHI METHOD" is the bonafide work of PRADEEP.N, SABARINATHAN.P, SHYAM SUNDAR.R, KARTHICK.R. who carried out the project work under my supervision.



**SIGNATURE**

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**SIGNATURE**

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**SUPERVISOR**

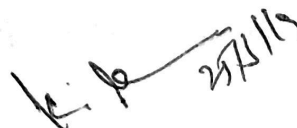
ASSISTANT PROFESSOR

Department of Mechanical Engineering,  
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Tiruchirappalli-620 012

Submitted for the university viva-voce examination held on ..25-03-2019



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



**EXPERIMENTAL ANALYSIS AND ENHANCEMENT  
OF MECHANICAL PROPERTIES OF HYBRID**

**AL6082 & Si<sub>3</sub>N<sub>4</sub>**

**A PROJECT REPORT**

*Submitted by*

<b>HARIHARAN .S</b>	<b>811215114014</b>
<b>PRAVEEN KUMAR .J</b>	<b>811215114036</b>
<b>PREM KUMAR .R</b>	<b>811215114038</b>
<b>GANESH .M</b>	<b>811215114303</b>

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**IN**

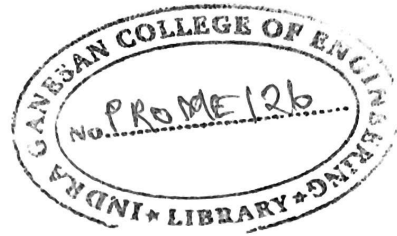
**MECHANICAL ENGINEERING**

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**TIRUCHIRAPPALLI- 620012**

**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH 2019**



**EXPERIMENTAL ANALYSIS AND ENHANCEMENT  
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**AL6082 & Si<sub>3</sub>N<sub>4</sub>**

**A PROJECT REPORT**

*Submitted by*

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<b>PRAVEEN KUMAR .J</b>	<b>811215114036</b>
<b>PREM KUMAR .R</b>	<b>811215114038</b>
<b>GANESH .M</b>	<b>811215114303</b>

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**ANNA UNIVERSITY: CHENNAI 600 025**

**MARCH 2019**

**ANNA UNIVERSITY : CHENNAI 600025**

**BONAFIDE CERTIFICATE**

This is to certify that the project report “EXPERIMENTAL ANALYSIS AND ENHANCEMENT OF MECHANICAL PROPERTIES OF HYBRID AL6082 & Si3N4” is the bonafide work of HARIHARAN.S (811215114014), PRAVEEN KUMAR.J (811215114036), PREMKUMAR.R (811215114038), GANESH.M (811215114303) who carried out the project under by supervision.

**SIGNATURE**



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**SIGNATURE**



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Tiruchirappalli-12.

Submitted for the university viva-voce examination held on 25.03.2019 (AN)

**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**

