

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





2020-2021

Criteria 2 Teaching-Learning and Evaluation 350

Key Indicator-Experiential Learning Method (90)

DEPARTMENT OF MECHANICAL ENGINEERING



DEPARTMENT OF MECHANICAL ENGINEERING

S.No	Project Title	No Students
1	DESIGN AND ANALYSIS OF CO ₂ 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 & Si3N4	04

DESIGN AND ANALYSIS OF CO₂ SCRUBBER FOR BOILER

A PROJECT REPORT

Submitted by

COLLEGE OF ENDINGS

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

 \mathbb{N}

MECHANICAL ENGINEERING

INDRA GANESAN COLLEGE OF ENGINEERING

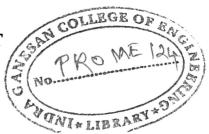
TIRUCHIRAPPALLI - 620 012

ANNA UNIVERSITY: CHENNAI 600 025

DESIGN AND ANALYSIS OF CO₂ 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

ANNA UNIVERSITY: CHENNAL 600 025

BONAFIDE CERTIFICATE

This is to certified that the project report "DESIGN AND ANALYSIS OF CO, NCRUBBER FOR BOILER" in the bonsfide work of M.PHAVEEN EUMAR, S.B.NAFFAR HUNNAIN, M.NANTHONH, N.VINCENTPAUL, RAJ. Whoestriedout the project work under mysupervision:

SIGNATURE

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

HEAD OF THE DEPARTMENT

Department of Mechanical Engineering,

Indra Ganesan CollegeofEngineering

Trichirappalli-620012

MIGNATURE

MER THIRUNAVUKARASU, M.E.

NUPERVISOR

ABBINTANT PROFESSOR

Department of Mechanical Engineering,

Indra Ganesan College of Engineering,

Tiruchirappalli-620012

Submitted for the university viva-voce examination held on よんりしょ

INTERNÁLÍCKAMINER

EXTERNALEXAMINED

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

A PROJECT REPORT

Submitted by

DINESH KUMAR B

GOPIP

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 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

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

MECHANICAL ENGINEERING

Indra Ganesan College of Engineering Tiruchirappalli – 620 012. A. Del Augustus

SIGNATURE

Mr. A. DINESH ANTONY, M.E.,

ASSISTANT PROFESSOR

MECHANICAL ENGINEERING

Indra Ganesan College of Engineering Tiruchirappalli – 620 012.

Submitted for the university viva-voce Examination held on .. 2.5.03.2019.

INTERNAL EXAMINER

EXTERNAL EXAMINER

DESIGN AND FATEGUE ANALYSIS ON METAL MATRIX COMPONITE CONNECTING, ROBS BY UNENG PENTER ELEMENT ANALYMES

A PRICERY T REPURET

Submitted by

杨军是 5 五数男师提出的 4

亨弼《胡椒汀弼礼毅成斯 截

BRATLE P

· 新建设及设施设备 解取研究

衛祖 医复合中间 日 鎮轄部隊

通讯及众司中的 医精髓管 一

in partial fulfilment for the award of the degree

BACHELOR OF ENGINEERSNG

動

MERCHANICAL ENGINEERICHG

医帕蓬酸品 化成功能压成为 化双亚基比亚 化胂 医外孔皮附近医淋巴外孔 李金融文 C 2000年 A.P.P. A.L.L.J. - 6/24 年以上

ANNA EMPERNITY: CHENNAL 660 025 MAANK M - DEEP

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 \mathbf{BY} FINITE ELEMENT ANALYSIS" is the bonafide work of "S.SELVA

KUMAR, K.THAMOTHARAN, P.DEEPAK

K. WANTEN

carried out the project work under my supervision.

Dr.K.BALAMURUGAN, M. Tech.,

Ph.D.,

HEAD OF THE DEPARTMENT

MECHANICAL ENGINEERING

Indra Ganesan College of

Engineering Tiruchirappalli

620 012.

B.E.,M.Tech.,Ph.D.

Mr.C.SARAVANAHIMAR College of Engineering Tiruchirappalli-620 012

M.Tech.,

ASSISTANT PROFESSOR

MECHANICAL ENGINEERING

Indra Ganesan College of

Engineering Tiruchirappalli –

620 012.

Submitted for the university viva-voce Examination held on 25/3/19

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

BACHELOR OF ENGINEERING

IN

DEPARTMENT OF MECHANICAL ENGINEERING
INDRA GANESAN COLLEGE OF ENGINEERING
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

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 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.

SIGNATURE

Dr. S. BHARATHI PARTURE

Dr.K.BALAMURUGAN, M. Teele, PINE, I PAMr. A.DINESH ANTONY, M.E., Indra Ganesan College of Engineering

HEAD OF THE DEPARTMENT ASSISTANT PROFESSOR

MECHANICAL ENGINEERING

MECHANICAL ENGINEERING

IndraGanesan College of

IndraGanesan College of

Engineering Tiruchirappalli –

Engineering Tiruchirappalli –

620 012.

620 012.

Submitted for the university viva-voce Examination held on .25.03-2019

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

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

OPTIMIZATION OF DRILLING PARAMETERS OF SS304 BY TAGUCHI METHOD

A PROJECT REPORT

Submitted by



811215114035

SABARINATHAN.P

811215114042

SHYAM SUNDAR.R

811215114048

KARTHICK.R

811215114304

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

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.

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

HEAD OF THE DEPARTMENT

Department of Mechanical Engineering,

Indra Ganesan College of Engineering

Trichirappalli-620 012

P. Rauf P. 1 SIGNATURE 243119,

Mr.R.RAMESH BABU, M.E,D.I.S,

SUPERVISOR

ASSISTANT PROFESSOR

Department of Mechanical Engineering,

Indra Ganesan College of Engineering,

Tiruchirappalli-620 012

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



EXPERIMENTAL ANALYSIS AND ENHANCEMENT OF MECHANICAL PROPERTIES OF HYBRID

AL6082 & Si3N4

A PROJECT REPORT

Submitted by

HARIHARAN .S

811215114014

PRAVEEN KUMAR .J

811215114036

PREM KUMAR.R

811215114038

GANESH.M

811215114303

In partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

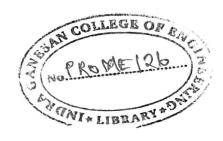
IN

MECHANICAL ENGINEERING

INDRA GANESAN COLLEGE OF ENGINEERING

TIRUCHIRAPPALLI- 620012

ANNA UNIVERSITY: CHENNAI 600 025



EXPERIMENTAL ANALYSIS AND ENHANCEMENT OF MECHANICAL PROPERTIES OF HYBRID

AL6082 & Si₃N₄ A PROJECT REPORT

Submitted by

HARIHARAN.S

811215114014

PRAVEEN KUMAR .J

811215114036

PREM KUMAR.R

811215114038

GANESH.M

811215114303

In partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

INDRA GANESAN COLLEGE OF ENGINEERING

TIRUCHIRAPPALLI- 620012

ANNA UNIVERSITY: CHENNAI 600 025

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 ...

SIGNATURE

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

Mr.R.THIRUNAVUKKARASU, M.E.,

HEAD OF THE DEPARTMENT

SUPERVISOR

Department of Mechanical Engineering,

Assistant Professor,

Indra Ganesan College of Engineering,

Department of Mechanical Engineering,

Tiruchirappalli-620012.

Indra Ganesan College of Engineering,

Tiruchirappalli-12.

Submitted for the university viva-voce examination held on 25:. 93.2019 CAN)

INTERNAL EXAMINER

EXTERNAL EXAMINER