

Dissertation Report on

"Thermal performance & Experimental Investigation of Heat Sink used for Power Electronic Applications"

Submitted by

MAHENDRA SUKHADEO WALUNJKAR

Under the guidance of Dr. R. S. Pawar

&

Co – Guidance of
Prof. D.A. Deshmukh
In partial fulfillment of the award of
Master of Engineering (Mechanical Engineering)





This is to certify that the dissertation I report entitled

"Thermal Performance & Experimental Investigation of Heat

Sink used for Power Electronic Applications"

Submitted by

MAHENDRA SUKHADEO WALUNJKAR

Has completed as per the requirement of Dr. Babasaheb Ambedkar Marathwada University in partial fulfillment for the award of Master of Engineering (Mechanical Engineering) of Dr. Babasaheb Ambedkar University Aurangabad (M.S).

Place: Aurangabad

Date:

Prof. D.A. Deshmukh

Co-Guide

Department of Mechanical Engineering Prof. G. S. Dhage
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Shreeyash College of Engineering & Technology

Aurangabad (M.S.)

Department of Mechanical Engineering
Shreeyash College of Engineering & Technology

Aurangabad (Maharashtra)

[2017-18]



A Dissertation Report

On

"ENHANCEMENT OF MECHANICAL PROPERTIES OF COMPOSITE MATERIALS IN BRAKE PAD APPLICATION"

Submitted

 $\mathbf{B}\mathbf{y}$

MANGESH RAM LENDGULE

Under the Guidance

of

Dr. R.S. Pawar Guide Prof. D. D. Pawar Co-Guide

In partial fulfillment of the requirement for the Degree of Master of Engineering (Mechanical Engineering)

Year 2017-18



Department of Mechanical Engineering

Shreeyash College of Engineering and Technology, Aurangabad Maharashtra State, India

(2017-18)



CERTIFICATE

This is to certify that the Dissertation entitled

"ENHANCEMENT OF MECHANICAL PROPERTIES OF COMPOSITE MATERIALS IN BRAKE PAD APPLICATION"

Submitted by

MANGESH RAM LENDGULE

Has completed as per the requirements of the Dr. Babasaheb Ambedkar Marathwada
University in partial fulfillment for the award of Master of Engineering (Mechanical
Engineering) of Dr. Babasaheb Ambedkar University, Aurangabad. (M. S.)

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(Mechanical Engineering)

Prof. D. D. Pawar
Co-Guide

Prof. D. A. Deshmukh M.E. Co-ordinator

Dr. R. S. Pawar Principal

SYCET, Aurangabad



Dissertation Report on

"OPTIMIZATION OF PROCESS PARAMETERS AFFECTING ON SPRINGBACK IN V-BENDING PROCESS FOR DEEP DRAW STEEL HSLA 420 STEEL USING FEA AND TAGUCHI TECHNIQUE"

Submitted by
NAVAJYOTI PANDA
Under the guidance of
Dr. R.S Pawar

In partial fulfillment of the award of Master of Engineering (Mechanical Engineering)



MISSION EDUCATION

Department of Mechanical Engineering

Shreeyash College of Engineering

Technology,

Aurangabad (Maharashtra)

[2017-18]



This is to certify that the dissertation I report entitled

"OPTIMIZATION OF PROCESS PARAMETERS AFFECTING ON SPRING-BACK IN V-BENDING PROCESS FOR DEEP DRAW STEEL HSLA 420 STEEL USING FEA AND TAGUCHI TECHNIQUE"

Submitted by

NAVAJYOTI PANDA

Has completed as per the requirement of Dr. BabasahebAmbedkarMarathwada University in partial fulfillment for the award of Masterof Engineering (Mechanical Engineering) of Dr.BabasahebAmbedkarUniversity Aurangabad (M.S).

Place: Aurangabad

Date: 25 10 6 | 2018

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Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,

AURANGABAD (M.S.)

Dissertation Report on

"Experimental Investigation of Rotary Tiller Blades for Performance Analysis"

Submitted by mbooker Manthopela University

Mr. NIKHIL B. METANGE

Prof. K.T. PATIL

Prof. M.D. SHENDE

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In partial fulfilment of the award of

Master of Engineering (Mechanical Engineering)



Department of Mechanical Engineering

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SHREEYASH COLLEGE OF ENGINEERING & TECHNOLOGY

AURANGABAD

CERTIFICATE

This is to certify that Mr. Nikhil B. Metange has successfully completed the Dissertation entitled "Experimental Investigation of Rotary Tiller Blades for Performance Analysis" under my supervision, in the partial fulfilment of Master of Engineering (Mechanical) of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Date : 7 106 12018

Place: Aurangabad

Prof. K.T. Patil

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Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY.

AURANGABAD (M.S.)

Dissertation Report on

"Optimum Design & Analysis of Corrugated Sheet Box Size for an Industrial Application"

Submitted by

Sagar Garje

Under the guidance of

Dr. R.S. Pawar

Prof. K.T. Patil

Guide

Co-Guide

In partial fulfillment of the award of Master of Engineering (Mechanical Engineering)



MISSION EDUCATION



This is to certify that the dissertation I report entitled

"Optimum Design & Analysis of Corrugated Sheet Box Size for an Industrial Application"

Submitted by

Sagar Garje

Has completed as per the requirement of Dr. Babasaheb Ambedkar Marathwada University in partial fulfillment for the award of **Masterof Engineering** (Mechanical Engineering) of Dr. Babasaheb Ambedkar University Aurangabad (M.S).

Date: 7/6/2018

Place: Aurangabad

Prof. K.T. Patil

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Dissertation-II Report on

"Experimental Investigation of Heat Transfer Enhancement in Shell and Tube Heat Exchangers Using Al₂O₃/water and CuO/water Nanofluid"

Submitted by

Mr. Sakharam A. Shimple

Seat Number: [9D0000147]

Under the guidance of

Prof. M. D. Shende

In partial fulfillment of the award of Master of Engineering (Mechanical Engineering)





CERTIFICATE

This is to certify that the dissertation- II report entitled

"Experimental Investigation of Heat Transfer Enhancement in Shell and Tube Heat Exchangers Using Al₂O₃/water and CuO/water Nanofluid"

Submitted by

Mr. Sakharam A. Shimple

Seat Number: [9D0000147]

Has completed as per the requirement of Dr. Babasaheb Ambedkar Marathwada
University in partial fulfillment for the award of **Masterof Engineering**(MechanicalEngineering) of Dr.BabasahebAmbedkarUniversity Aurangabad (M.S).

Place: Aurangabad

Date: 7/6/18

Prof. M. D. Shende

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MANTECH PUBLICATIONS

Cerunicate No. MT/3014/2019

Certificate of Publication



This is to certify that the manuscript entitled "Experimental Investigation of Ten Turn Closed Loop

Pulsating Heat Pipe Thermal Performance and Validation Using CFD Simulation of Single Turn"

submitted by "Shailesh D Rajendra, Prof. Dipak A Deshmukh, Dr. Ramkisan S Pawar" has been

published in "Journal of Thermal Engineering and Technology" Volume 4 Issue 2 Year 2019

Date: 11th May 2019



Authorized Signatory

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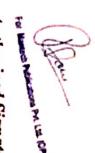
This is to certify that the manuscript entitled "Experimental Investigation of Closed Loop Pulsating Heat Pipe

Thermal Performance and CFD Validation" submitted by "Shailesh D Rajendra, Prof. Dipak A Deshmukh, Dr.

Ramkisan S Pawar" has been published in "Journal of Thermal Engineering and Technology" Volume 4 Issue 1

Year 2019

Date: 5th April 2019



Authorized Signatory

MANIECH Publications



Dissertation Report on

"COMPUTER AIDED ANALYSIS OF PRESS TOOL TO IMPROVE TOLERANCE ALLOCATION & PROCESS CONTROL"

Submitted by
SUBODH KUMAR
Under the guidance of
Dr. R.S Pawar

In partial fulfillment of the award of Master of Engineering (Mechanical Engineering)





This is to certify that the dissertation I report entitled

"COMPUTER AIDED ANALYSIS OF PRESS TOOL TO IMPROVE TOLERANCE ALLOCATION & PROCESS CONTROL"

Submitted by

SUBODH KUMAR

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A Dissertation Report

On

"THERMAL ANALYSIS OF CYLINDRICAL ROLLER BEARING WITH CHANGE IN ROLLER MATERIAL (SILICON CARBIDE AND STEEL)"

> Submitted By

SUBODH CHHOTU PAWAR

Under the Guidance

Of

Prof. M. D. SHENDE

In partial fulfillment of the requirement for the degree of Master of Engineering (Mechanical)

Year 2017-16



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CERTIFICATE

This is to certify that the Dissertation entitled

"THERMAL ANALYSIS OF CYLINDRICAL ROLLER BEARING WITH CHANGE IN ROLLER MATERIAL (SILICON CARBIDE AND STEEL)"

Submitted by

SUBODH CHHOTU PAWAR

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