

# ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY

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Recognized by UGC under section 2(f) of UGC Act 1956

Surampalem, E.G. Dist., AP- 533 437

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project entitled **"Corrosion Behavior of Ni Coated Aluminium Reinforced With Coconut Shell Ash Composites"** is being submitted by

PADALA VEERABHADRAM  
VULAVAKAYALA DATTA  
VALLAPUSETTI RAMAKRISHNA  
MYDU VENKATA SUMANTH  
KALAHASTI TEJA

18P35A0363  
17P31A0336  
17P31A0335  
18P35A0358  
18P35A0338

In partial fulfillment of the requirements for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2020-2021. The results embodied in this report have not been submitted to any other institute or university for the award of any degree.

**Dr. N. STANLEY EBENEZER, M.Tech., Ph.D**

Assistant Professor

Project Guide

**Dr. DANAIAH PULI, M.Tech., Ph.D**

Associate Professor & Head

Head of the Department

**EXTERNAL EXAMINER**

**PRINCIPAL**  
Aditya College of  
Engineering & Technology  
SURAMPALAM- 533 437

# ADITYA COLLEGE OF ENGG & TECHNOLOGY

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Surampalem East Godavari District 533437

## MECHANICAL ENGINEERING DEPARTMENT



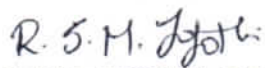
### CERTIFICATE

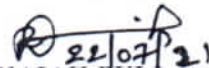
This is to certify that this project report entitled  
“DESIGN AND ANALYSIS OF AQUA FEED SPRAYER FOR EASY  
FORMING”

Submitted by

M.SAIGANESH	18P35A0350
S.S. PAVAN SAIRAM	17P31A0332
M.SUNIL	18P35A0348
J. LOKESH	18P35A0336
G.MANIKANTHA	18P35A0335

In partial fulfillment of requirements for the award of bachelor of technology degree in Mechanical Engineering during the Academic year 2020-2021. The results embodied in this project report have not been submitted to any other Institute or University for the award of any degree or diploma.

  
MS. R.S.M. JYOTHI, M.Tech.  
Assistant professor  
PROJECT GUIDE  
Mechanical Engineering Dept.,

  
Dr. DANAIAH PULLI, M.Tech., Ph.D.  
Associate professor & Head  
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Mechanical Engineering Dept.,

  
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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled “**DESIGN AND FABRICATION OF CONTACTLESS BRAKING SYSTEM**” Submitted by

K .SANTHOSH	18P35A0341
K .BHASKARA RAO	17P31A0353
G .MANIDHAR	18P35A0333
I .SATHIRAJU	17P31A0350
K .AMAR SAI TEJA	17P31A0355

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year **2020-2021**. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Mr. M. SRINIVAS M.Tech.

Assistant Professor

Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

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Associate Professor & HEAD

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Surampalem, East Godavari, A.P – 533437

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project entitled “**CHARACTERIZATION OF GLASS FIBER REINFORCED POLYMER COMPOSITE PREPARED BY HAND LAYUP METHOD**”

Submitted by

K. SRINU	(18P35A0339)
T. DHANESH	(17P31A0333)
L. SOMA RAJU	(18P35A0347)
Y. DEVI SHANKAR	(18P35A0364)
M. MURALI KRISHNA	(18P35A0352)
G. KIRAN SAI	(17P31A0348)

In partial fulfilment of the requirement for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2017-2021 The results embodied in this report have not been submitted to any other institute or university for the award of any degree.

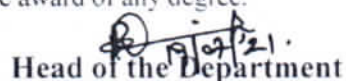
  
Project Guide

Mr. K. Sarinaba, M. Tech

Assistant professor

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Head of the Department

Dr. Danaiah Puli, M. Tech, Ph. D

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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled “DESIGN AND PROTOTYPE OF SMART MATERIAL HANDLING SYSTEM” Submitted by

18P35A0367

18P35A0368

18P35A0377

18P35A0366

P. LIKITH

P. PAVAN SURYA

P. S V S GIREESH KUMAR

P. MAHESH BABU

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

### PROJECT GUIDE

Mr. V. S. Surya Prakash, M.E

Assistant professor

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### HEAD OF THE DEPARTMENT

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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project entitled "DESIGN AND PROTOTYPE OF SMART HOISTED DELTA PICK AND PLACE ROBOT" submitted by

SHAIK DARWESH	(18P35A0385)
SAKA VEERA SHANKAR	(18P35A0380)
PAKKURTHI L N V KALYAN	(18P35A0365)
TELU PRASAD KUMAR	(18P35A0389)

In partial fulfilment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year **2020-2021**. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Mr. P. JAI KISHAN, M. Tech,

Assistant Professor

Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

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Surampalem, E.G. Dist., AP – 533 437.

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project report entitled “DESIGN AND ANALYSIS OF WINDMILL OPERATED WATER PUMP WITH TWO DIFFERENT AIRFOILS” Submitted by

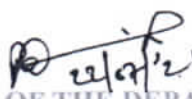
PANGA YESU	18P35A0369
KOTIPALLI VIJAYA KUMAR	18P35A0396
KADA NARENDRA	17P31A0384
TURPATI LOKESH ARUN KUMAR	18P35A0394
SIRIKI RAJESH BABU	16A91A0381

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree.

  
PROJECT GUIDE

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2020-2021

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project entitled "DESIGN AND STRUCTURAL ANALYSIS OF HYBRID TWO-WHEELER BIKE" is being submitted by

PALLAPU RAMU (17P31A0367)

TANETI PRUDHVI RAJU (18P35A0387)

PERUMAALLA NAGA DURGA GANESH (16P31A0397)

SUNKARA GANGADHAR (17P31A0372)

TOTTALA ANIL KUMAR (18P35A0393)

in partial fulfillment of the requirement for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2020-2021. The results embodied in this report have not been submitted to any other institute or university for the award of any degree.

PROJECT GUIDE

Dr. V V M J SATISH CHEMBULY M. Tech, Ph. D

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Mechanical Engineering Department

HEAD OF THE DEPARTMENT

Dr. Danaiah Puli M. Tech, Ph. D

Associate Professor & Head

Mechanical Engineering Department

  
EXTERNAL EXAMINER  
PRINCIPAL  
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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled "FABRICATION OF ELECTROMAGNETIC BRAKING SYSTEM" Submitted by

P. VENKAT SRIRAM	18P35A0370
T. NAGA NANAJI	18P35A0388
T. SANDEEP	18P35A0392
B. ADITYA NAGA SANTHOSH	17P31A0378
L. RAMANJI	17P31A0359

In partial fulfilment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

PROJECT GUIDE

Mr. N. Chaitanya Krishna, M.Tech

Assistant professor

Mechanical Engineering Department

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Associate professor & Head

Mechanical Engineering Department

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Surampalem East Godavari District 533437

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE


This is to certify that this project report entitled

#### **“CFD ANALYSIS OF SOLAR FLAT PLATE COLLECTOR”**

Submitted by

R.RAGHU RAM	18P35A0379
SARISE.SRINIVAS	18P35A0382
PERLA. SATISH	18P35A0373
P.N.S SWAMY	17P31A0370
B.S.P.K YADAV	17P31A0377

In partial fulfillment of requirements for the award of bachelor of technology degree in Mechanical Engineering during the Academic year 2020-2021. The results embodied in this project report have not been submitted to any other Institute or University for the award of any degree or diploma.

  
Mr. P. V. S MURALI KRISHNA  
M.Tech., (Ph.D)

Sr.Assistant Professor  
PROJECT GUIDE

  
Dr. DANAIAH PULI  
M.Tech.,Ph.D.

Associate Professor  
HEAD OF THE DEPARTMENT

  
EXTERNAL EXAMINER

  
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MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled "DESIGN AND ANALYSIS OF CONVERTABLE WHEEL CHAIR TO SLEEPING BED" Submitted by


G. SANJAY SIVARAM	17P31A0382
P. VERA BABU	18P35A0372
D. SIVA LAKSHMAN RAJU	17P31A0381
I. SURYA	16A91A03D9
U. SAI	18P35A0395

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

### PROJECT GUIDE

  
Mr. T. SRINAMA SAGAR, M. Tech  
Assistant professor  
Mechanical Engineering Department

### HEAD OF THE DEPARTMENT

  
Dr. DANAIAH PULI, M. Tech, Ph.D  
Head of the Department  
Associate professor & Head  
Mechanical Engineering Department  
SURAMPALAM 533 437

### EXTERNAL EXAMINER

  
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Surampalem, E.G. Dist., AP – 533 437.

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that this project report entitled

**“THERMAL ANALYSIS OF THE GAS TURBINE ROTOR BLADE”**

**S.SAI KUMAR**

**18P35A0386**

**N.PAPARAO**

**17P31A0362**

**S.VENKATA CHARAN**

**18P35A0383**


**DEEPAK KUMAR YADAV**

**17P31A0380**

**N.SESHA MANIKANTA**

**17P31A0363**

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year **2020-2021**. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
16/7/21

**PROJECT GUIDE**

**Dr.K.SIVA SATYA MOHAN,**

**M.Tech.,Ph.D**

**Associate professor**

**Mechanical Engineering Department**

  
16/07/21  
**HEAD OF THE DEPARTMENT**  
**Dr.DANAIAH PULI**

**M.Tech.,Ph.D**

**Associate professor**

**Mechanical Engineering Department**

  
**EXTERNAL EXAMINER**

  
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**Aditya College of**  
**Engineering & Technology**  
**SURAMPALAM- 533 437**

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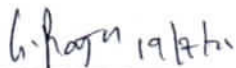
Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled “**DESIGN AND ANALYSIS ON SUSPENSION SYSTEM OF A HYBRID TWO WHEELER BIKE**” Submitted byin partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year **2020-2021**.The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Mr.G.RAJU, M.Tech  
Assistant Professor  
Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

Dr.DANAIAH PULI,M.Tech,Ph.D  
Associate Professor & Head  
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Surampalem, E.G. Dist., AP – 533437.  
MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled “PERFORMANCE AND EMISSION CHARACTERISTICS OF SI ENGINE BY USING OXYGENATED ADDITIVES BY VARYING LOAD AT DIFFERENT SPEEDS” Submitted by

P. PRABHU TEJA	18P35A0378
T. MOHAN KRISHNA	18P35A0390
B. HARISH	16P31A03B0
S. SIVA	17P31A0371
B. RAJSEKHAR	17P31A0376

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Mr. V. SIVA NAGI REDDY M.Tech.  
Assistant Professor  
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Surampalem, E.G. Dist., AP – 533 437

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project report entitled “An Investigation of Friction Stir Welding Process Parameters for Joining AL-LI Alloys”

Submitted by

S. GOPALA KRISHNA	18P35A0381
NISHANT DEEP	17P31A0366
V. SRIDHAR	17P31A0369
MD. SHAHID IQBQL	17P31A0361
T.G.S.N.VARA PRASAD	17P31A0373

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

*Pranod Kumar*  
PROJECT GUIDE

Dr. PRAMOD KUMAR, M.Tech, Ph.D.

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*Dr. Danaiah Puli*  
HEAD OF THE DEPARTMENT

Dr. DANAIAH PULI, M.Tech, Ph.D.

Associate Professor & Head

Mechanical Engineering Department

*[Signature]*  
EXTERNAL EXAMINER

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## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project report entitled “PERFORMANCE ANALYSIS OF A VCR ENGINE FOR VARIOUS PISTON DESIGNS AND CONFIGURATIONS” Submitted by

N V S SATYA SRIKAR

17P31A0365

K SAI MANOJ

17P31A0385

M VENKATA REDDY

17P31A0360

N RAM KALYAN

17P31A0364

K KAMESH KUMAR

17P31A0358

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree.

  
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Ms. A SWATHI, M. Tech

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Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

Dr. DANAIAH PULI M. Tech., Ph. D

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Mechanical Engineering Department

  
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MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled "DESIGN AND ANALYSIS OF ELECTRIC BIKE"  
Submitted by

V. E.S. NAGABHUSHANAM	17P31A03A9
P. SOMASEKHAR	17P31A0399
K.C.D. PRASAD	17P31A0386
T. VENKATA SAI	17P31A03A5
K. VEERA SATISH	17P31A0389
Y. CHINA VEERAJU	17P31A03B3

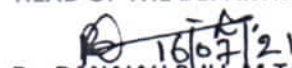
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any degree or diploma.

### PROJECT GUIDE

  
Mr. K. VIJAY, M.Tech.

Assistant professor  
Mechanical Engineering Department

### HEAD OF THE DEPARTMENT

  
Dr. DANAIAH PULI, M.Tech, Ph.D.,  
Associate professor & Head  
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EXTERNAL EXAMINER

  
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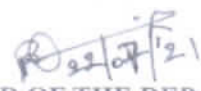
## CERTIFICATE

This is to certify that the project report entitled "STUDY ON USE OF RADIANT ENERGY WELDING PROCESSES IN DEFENCE AND SPACE APPLICATIONS" Submitted by

T.LAKSHMI GANESH	18P35A03C5
V.DURGA PRASAD	18P35A03A6
A.NAGA VARUN	17P31A03B4
Y.VINEETH KUMAR	18P35A03B1
T.SIVA MANIKANTA	17P31A03A6
K.NAVEEN KUMAR	17P31A0390

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE  
Dr. T. SRIHARI Ph.D. (IIT DELHI)  
Professor  
Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT  
Dr. DANAIAH PULI MTech., Ph.D.  
Associate Professor & Head  
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## DEPARTMENT OF MECHANICAL ENGINEERING

### CERTIFICATE

This is to certify that the project report entitled “DESIGN AND 3D PROTOTYPING OF HORIZONTAL TURBINE - IOT BASED TESTING”. Submitted by

BIBEK KUMAR KARNA	17P31A03B6
TELU SIVA SANKAR	18P35A0399
TEPPALA SAI AMAN	18P35A03C4
DASARI SUBRAHMANYAM	18P35A0398
KAMIREDDY CHIRANJEEVI	16P31A03E1

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Dr. AKHILESH KUMAR SINGH

Associate Professor

Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

Dr. DANAIAH PULI, M.Tech., Ph.D.,

Associate Professor & Head

Mechanical Engineering Department

  
EXTERNAL EXAMINER

  
PRINCIPAL  
Aditya College of  
Engineering & Technology  
SURAMPALAM- 533 437

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY  
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Recognized by UGC under section 2(f) and 12(B) of UGC Act 1956.

Surampalem, E.G. Dist., AP – 533 437.  
MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project report entitled “**DESIGN AND ANALYSIS OF OMNIBALL SPHERICALWHEEL ROBOT**” Submitted by

Y.SATISH KUMAR	(17P31A03B2)
MPRAVEEN KUMAR	(18P35A03C6)
MSAMUDRA SWAMY	(18P35A03B8)
U.SRINU	(18P35A03A1)
V.SATYA SAI	(17P31A03A4)
V. GABRIEL	(16A91A0343)

in partial fulfilment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year **2020-2021**. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Mr. ABDUL ARIF, M.Tech  
Assistant professor

  
HEAD OF THE DEPARTMENT

Dr. DANAIAH PULI, M.Tech, Ph.D  
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MECHANICAL ENGINEERING DEPARTMENT

  
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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled "**FABRICATION OF FRICTIONLESS ELECTROMAGNETIC BRAKING SYSTEM**"

Submitted by

B.LOKESH	18P35A03C0
N.PHANI SAESWAR	18P35A03C2
K.SAIKOTI	18P35A03B6
C.VEERATEJA	18P35A03C9
V.GYANENDRA	17P31A03B0

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year **2020-2021**. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Mr. A. CHIRANJEEVI, M.Tech.  
Assistant professor  
Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

Dr. DANAIAH PULI, M.Tech., Ph.D.  
Associate Professor & Head  
Mechanical Engineering Department

  
EXTERNAL EXAMINER

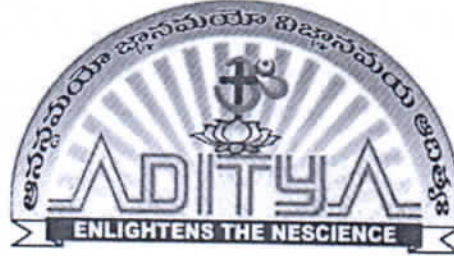
  
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Surampalem E.G. Dist., AP-533437.




## DEPARTMENT OF MECHANICAL ENGINEERING

### CERTIFICATE

This is to certify that the project report entitled "Design and Simulation of Vortex Tube with Different Conical Control Valves" Submitted by

Y.DHANRAJ	18P35A03B0
Y. SRINUBABU	18P35A03A9
K. SUBASH	18P35A03B9
M. BHARATH CHANDRA	18P35A03C1
V. SAI SANJAY PRATAP	18P35A03A2

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
22/07/21  
PROJECT GUIDE

Mr. PAVAN KUMAR CHINTALAPATI

Assistant Professor

Mechanical Engineering Department

  
22/07/21  
HEAD OF THE DEPARTMENT

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EXTERNAL EXAMINER

  
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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled "MONITORING AND DETECTION OF VEHICLE EMISSION"

Submitted by

U. VINAY CHOWDARY

18P35A03A0

S.SAI KUMAR

17P31A03A3

P. CHANDRA SEKHAR

18P35A03B5

A.L.N ESWAR PRASAD


18P35A0397

K. VENKATA KISHORE

17P31A0388

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

### PROJECT GUIDE

  
Mr. B. JAGADISH, M.Tech

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Mechanical Engineering Department

### HEAD OF THE DEPARTMENT

  
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Surampalem, E.G. Dist., AP – 533 437.

(2020-2021)

MECHANICAL ENGINEERING DEPARTMENT



**CERTIFICATE**

This is to certify that the project report entitled “IMPROVING PRODUCTIVITY OF DOUBLE SLOPE SOLAR STILL USING NANO COATED BASIN MATERIALS” Submitted by

NAKKA SWAPNA	18P35A03B3
PONNAMANDA RAJU	18P35A03C7
NAGIREDDY NAGENDRA	17P31A0393
P UMAMAHESWARAO	18P35A03B2
NATTE PRASAD	17P31A0398
NARRA VENUGOPAL	17P31A0397

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Dr. M MURUGAN M.E., Ph.D.

Associate professor

MECHANICAL ENGINEERING DEPARTMENT

  
HEAD OF THE DEPARTMENT

DR. DANAIAH PULI M.TECH., Ph.D.

Associate Professor & Head

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EXTERNAL EXAMINER

  
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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled “DESIGN AND FABRICATRIION OF PHASE CHANGE MATERIAL AIR COOLER” Submitted by

1.S SIVA PRASAD	18P35A03B7
2.L SAIRAM	18P35A03C8
3.N S SATYA KRISHNA	17P31A0396
4.V A S K M SRINIVAS	17P31A03A7
5.M WILLSON	17P31A0391

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

*N Venkatesh*

PROJECT GUIDE

Mr. N VENKATESH M.Tech;

Assistant Professor

Mechanical Engineering Department

*D. Danaiahpuli*

HEAD OF THE DEPARTMENT

Dr. DANAIAHPULI, M.Tech., Ph.D.,

Associate Professor & Head

Mechanical Engineering Department

*Samir*

EXTERNAL EXAMINER

*✓*  
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SURAMPALAM- 533 437

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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled "OPTIMIZATION OF DESIGN AND STATIC THERMAL ANALYSIS OF DISC ROTOR USING FINITE ELEMENT METHOD" Submitted by

V. SATYA	18P35A03A3
Y. SAI RAJU	18P35A03A8
V. RAVI TEJA	17P31A03A8
P. SYAM PRASAD	17P31A03A0
K. RAVI CHARADHAR	17P31A0387

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Mr. R. PRASAD, M.Tech.  
Assistant professor  
Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled “EXPERIMENTAL STUDIES ON THE EFFECT OF OXYGENATED ADDITIVES ON SPARK IGNITION ENGINE” Submitted by

P.RAMA MANIKANTA	18P35A03B4
V.SAI KOUSIK	18P35A03A5
V.SAMPATH NIKHIL SAI	18P35A03A7
N.SAI PRASANTH	17P31A0395
P.AKHILESH	17P31A03A2
Y.NAVEEN JAYDEV	17P31A03B1

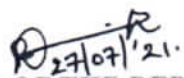
in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Dr. DANAIAH PULI M.Tech, Ph.D.

Associate Professor & HEAD

Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

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Aditya Nagar, ADB Road, Surampalem-533437

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project report entitled “**DESIGN AND FEA ANALYSIS OF COMPOSITE LEAF SPRING**” is being submitted by

GOPSETTI VAMSI	17P31A0316
B.PRABHAKAR RAO	18P35A0332
M.PAVAN KALYAN	17P31A0322
MADIREDDI GANESH	17P31A0321
EDA PRADEEP	17P31A0313

In partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY in MECHANICAL ENGINEERING to Aditya College of Engineering & Technology, during the academic year 2017-2021. The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree.

*N. Venkatesh*  
**PROJECT GUIDE**

**Mr. N. VENKATESH** M.Tech.

Assistant Professor

Mechanical Engineering Department

*Dr. Danaiah Puli*  
**HEAD OF THE DEPARTMENT**

**Dr. DANAIAH PULI** M.Tech, Ph.D.

Associate Professor & HEAD

Mechanical Engineering Department

*External Examiner*  
**External Examiner**

*Principal*  
**PRINCIPAL**  
Aditya College of  
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SURAMPALAM- 533 437

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Surampalem E.G. Dist., AP-533437.



## DEPARTMENT OF MECHANICAL ENGINEERING

### CERTIFICATE

This is to certify that the project report entitled "DESIGN AND 3D PROTOTYPING OF VERTICAL TURBINE - IOT BASED TESTING" Submitted by

CH.S.D.S. NEELADRI	18P35A0317
P. S. BHANU SUDHEER	17P31A0326
DAVULURI JAI GANESH	18P35A0321
BANDARU NOOKARAJU	18P35A0306
MANYAM ARUN KUMAR	17P31A0323

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2017-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

Dr. AKHILESH KUMAR SINGH

Assistant Professor

Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

Dr. DANAIAH PULLI, M.Tech., Ph.D.

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Recognized by UGC under section 2(f) of UGC ACT 1956

ADB ROAD, SURAMPALEM-533437, EAST GODAVARI DISTRICT



## CERTIFICATE

This is to certify that the project entitled

### DESIGN AND FABRICATION OF ABRASIVE JET MACHINE

Submitted by

A.SRINIVAS (17P31A0306)

D.S.G.SWAMY (18P35A0322)

CH. KARTHIK (18P35A0314)

G.S. SHANKAR (17P31A0315)

A. ROHITH (18P35A0301)

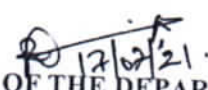
In partial fulfillment of the requirement for the award of Bachelor of Technology in Mechanical Engineering during the academic year 2020-2021. The results embodied in this report have not been submitted to any other institute or university for the award of any degree.

  
PROJECT GUIDE

Mr. T.SRI RAMA SAGAR

Assistant Professor

Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

Dr.DANAIAH PULI, M.Tech, Ph.D.

Associate Professor & Head

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EXTERNAL EXAMINER

  
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SURAMPALEM- 533 437

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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE


This is to certify that the project report entitled “DESIGN AND FLOW ANALYSIS OF INTAKE MANIFOLD FOR LIGHT COMMERCIAL VEHICLES BY USING COMPUTATIONAL FLUID DYNAMICS” Submitted by

G.KISHORE	18P35A0328
CH.SARATH CHANDRA KALYAN	18P35A0318
P.SRINIVAS	17P31A0328
K.YOGESH CHANDRA CHAITANYA	17P31A0320
P.PRAGNAN MANIPAL	17P31A0327
L.DURGA SAILENDRA	17P31A0319

in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE

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Assistant Professor  
Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT  
Mechanical Engineering  
Aditya College of Engineering & Technology  
SURAMPALAM 533 437  
Dr. DANAIAH PULI, M.Tech, Ph.D  
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Mechanical Engineering Department

  
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ABD ROAD, SURAMPALEM-533437, EAST GODAVARI DISTRICT

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project entitled

**"DESIGN & SIMULATION OF ALL – TERRAIN VEHICLE"**

is being submitted by

BUDDALA DURGAPRASAD

(18P35A0312)

KATSAVAYI SRI KRISHNA CHAITANYA VARMA

(18P35A03A4)

CHAKALA AJAY KUMAR

(18P35A0313)

BANDARI VISWA SATYA SAI KALYAN

(17P31A0308)


CHIDUPU MADHU NAGA VARA PRASAD

(17P31A0346)

KONURI HARISH

(17P31A0357)

In partial fulfillment of the requirement for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2017-2021. The results embodied in this report have not been submitted to any other institute or university for the award of any degree.

  
PROJECT GUIDE

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Assistant Professor


Mechanical Engineering Department

  
HEAD OF THE DEPARTMENT

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Mechanical Engineering Department

  
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## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project entitled "PERFORMANCE ANALYSIS OF  
RAISERLESS SOLAR WATER WITH DENTED ABSORBER PLATE" submitted  
by

BOTSA NANAJI	18P35A0310
AMBAVARAPU VEERESH	18P35A0303
GUBBALA BENNY KUMAR	18P35A0331
DALLI ANIL KUMAR	17P35A0311
AMBATI SWAMY	17P35A0305

in partial fulfillment of the degree of Bachelor of Technology in **MECHANICAL  
ENGINEERING** to Aditya College of Engineering and Technology affiliated to  
Jawahar Lal Nehru Technological University, Kakinada is a record of the bonfire work  
carried out under my guidance and supervision. The results presented in this project report  
have not been submitted to any other university or institute for the award of any degree.

Project Guide

Mr. V. KIRAN KUMAR, M.Tech.,

Assistant professor

Mechanical engineering Department

Head of The Department

Dr.DANAIAH PULI, M.Tech, Ph.D.,

Associate Professor & Head

Mechanical Engineering Department

External examiner

PRINCIPAL

Aditya College of  
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SURAMPALAM- 533 437

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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled "FABRICATION OF CHILLED WATER DISPENSER SYSTEM" Submitted by

A.N.V.A.CH. SANDEEP  
B.SURENDRA  
G.VINAY CHAITANYA  
CH.NAGA SANDEEP  
A.V.VENKATA GANESH

18P35A0305  
18P35A0308  
17P31A0314  
17P31A0310  
17P31A0304

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

*G. Raju 22/7/21*  
PROJECT GUIDE

Mr. G. RAJU, M.Tech.  
Assistant professor  
Mechanical Engineering Department

*[Signature]*  
HEAD OF THE DEPARTMENT

Dr. DANAIAH PULI, M.Tech., Ph.D.  
Associate Professor & Head  
Mechanical Engineering Department

*[Signature]*  
EXTERNAL EXAMINER

*[Signature]*  
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2017-2021

## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This to certify that the project entitled "DESIGN AND FABRICATION OF SERIAL ROBOTIC ARM" is

Submitted by

DEVADA HANUMA RAMA KRISHNA	(18P35A0323)
DOKUBURRA NAVEEN	(18P35A0324)
CHINTA RAVITEJA	(18P35A0315)
BANDI HARISH	(18P35A0307)
ADAPA PARISUDHA VISWA TEJAS	(17P31A0301)

In partial fulfilment of the requirement for the award of Bachelor of Technology in mechanical Engineering, during the academic year 2017-2021. The results embodied in this report have not submitted to any other institute or university for the award of any degree.

  
Project Guide

Dr. CH. V.V.M.J. SATISH, M. Tech, Ph.D.

Assistant Professor

Mechanical Engineering Department

Aditya college of Engg & Tech.

  
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External Examiner



  
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Surampalem, E.G. Dist., AP – 533 437.

MECHANICAL ENGINEERING DEPARTMENT



## CERTIFICATE

This is to certify that the project report entitled “ EXPERIMENTAL INVESTIGATION ON CNG AS A FUEL IN TWO WHEELER”Submitted by

D.SATHEESH	18P35A0320
G.SUBRAMANYAM	18P35A0326
G.SAICHAKRADHAR	18P35A0329
B.SURYA VARMA	18P35A0311
A.J.V.RAJESH REDDY	17P31A0303

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
19/07/21  
PROJECT GUIDE

Mr. R. PRASAD, M.Tech.  
Assistant professor  
Mechanical Engineering Department

  
19/07/21  
HEAD OF THE DEPARTMENT

Head of the Department  
Dr. DANALAXHI PILLAI, B.Tech, Ph.D.  
Associate Professor of Engineering & Technology  
Aditya College of Engineering & Technology  
Mechanical Engineering Department

  
EXTERNAL EXAMINER

  
Aditya College  
Engineering & Technology  
SURAMPALAM- 533 437

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY  
SURAMPALEM

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UGC under section 2(f) of UGC Act 1956  
Aditya Nagar, ADB Road,  
Surampalem - 533437

MECHANICAL ENGINEERING DEPARTMENT




CERTIFICATE


This to certify that the project entitled "MODELLING AND IMPLEMENTATION  
OF DUAL AXIS SOLAR TRACKING SYSTEM" is submitted by

CHINTALA JAGADEESH	(18P35A0316)
GORTHI SIVA VIJAY	(18P35A0330)
CORRELA SUBHAKAR GANESH	(17P31A0317)
BONDA PREM KUMAR	(18P35A0309)
GANTA THARUN PHANI SURYA PRASANTH	(18P35A0327)

In partial fulfilment of the requirement for the award of in **Bachelor of  
Technology in Mechanical Engineering**, during the academic year 2017-2021.  
The results embodied in this report have not submitted to any other institute  
or university for the award of any degree.

  
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2017 – 2021

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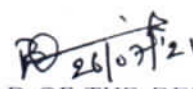
CERTIFICATE

This is to certify that the project entitled "Design and Analysis of Valve gear mechanism Using Finite element analysis" is being submitted by

BURRI SIVA	17P31A0309
NAGAM SATISH.	17P31A0325
DUDALA SURESH.	17P31A0312
MUHAMMED ASIN HIJAN	17P31A0324
K J D V KRISHNA	17P31A0318

In partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY in MECHANICAL ENGINEERING, during the academic year 2017-2021. The results embodied in this project report have not been submitted to any other University or Institute for the award of any degree.

  
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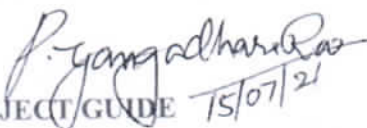


## CERTIFICATE

This is to certify that the project entitled “CRACK INITIATION AND PROPAGATION ANALYSIS ON HEAVY VEHICLE PROPELLER SHAFT BY USING WAVELET TRANSFORM” is being submitted by

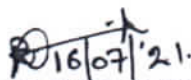
NAVUDU BHARGAV	[18P35A0361]
SHASHI SHANKAR MANDI	[17P31A0331]
D.V.S.S. SUBBARAJU	[17P31A0345]
CH SAIRAM	[17P31A0341]
P HARISH	[17P31A0349]

In partial fulfillment of the requirement for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2020-2021. The results embodied in this report have not been submitted to any other institute or university for the award of any degree.

  
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## CERTIFICATE

This is to certify that the project entitled "DESIGN AND PROTOTYPE OF SMART  
HOISTED DELTA PICK AND PLACE ROBOT" submitted by

KANTHI ANAND PRASAD	(18P35A0340)
MOHAMMAD ABDUL JAVEED	(18P35A0354)
MUPPIDI SRINIVASAREDDY	(18P35A0357)
MATTAPARTHI PURUSHOTHAM	(18P35A0351)
BONDA SRI GANESH SAI PAVAN	(17P31A0339)

In partial fulfilment of requirement for the award of Bachelor of Technology degree in  
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## CERTIFICATE

This is to certify that the project report entitled “**DESIGN AND PROTOTYPE OF SMART MATERIAL HANDLING SYSTEM**” Submitted by

18P35A0343

18P35A0353

18P35A0355

18P35A0342

17P31A0343

K. Uma Venkata Durga Rao

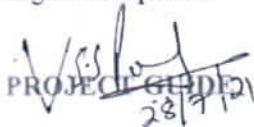
M. Bapiraju

Md. Mohiddin Khan

K. Surya Venkata Prakash Rao

D. Narasimha Ganesh

In partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year 2020-2021. The results embodied in this project report have not been submitted to any other institute or University for the award of any degree or diploma.

  
PROJECT GUIDE  
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CERTIFICATE

This is to certify that the project entitled " **DESIGN OF PORTABLE ELECTRIC POWER TRILLER MACHINE** "is being submitted In partial fulfilment of the requirement for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2020-2021

The results embodied in this report have not been submitted to any other institute or university for the award of any degree,

Submitted by

G.SAI	(18P35A0334)
R.KALYAN	(17P31A0330)
K.VINAY DATTA	(17P31A0352)
J.VEERA VENKATA SRINIVASU	(17P31A0351)
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## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

This is to certify that the project report entitled

**“FABRICATION AND TESTING OF NEEM SHELL RESIN,BAMBOO  
AND PINEAPPLE FIBER REINFORCED COMPOSITES”**

M.LAKSHMI VIGNESH	18P35A0349
K.SRIHARI	18P35A0345
N.CHANDRAMOULI	18P35A0359
P.JOEL VIJAYDEEP	16A91A03C9

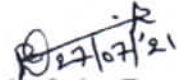
In partial fulfilment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY in MECHANICAL ENGINEERING to Aditya College of Engineering & Technology, during the academic year 2017-2021. The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree.

  
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## MECHANICAL ENGINEERING DEPARTMENT



### CERTIFICATE

*This is to certify that the project report entitled "Thermal Analysis and Optimization of I.C Engine Piston Using Finite Element Method" is being submitted by*

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K.SIVA SUBHRAMANYAM	18P35A0346
Y.SAI VAMSI REDDY	17P31A0337
N.UMA MAHESH	18P35A0360
K.LEELA SATYA KRISHNA	18P35A0337

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*K.Siva Satya Mohan*  
16/7/21

Dr.K.SIVA SATYA MOHAN, M.Tech., Ph.D

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*Dr. Danaiah Puli*  
16/07/21

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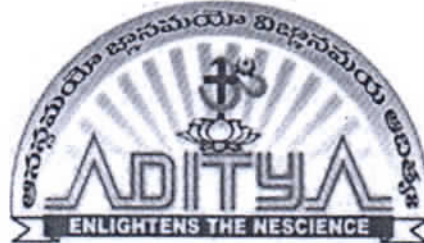
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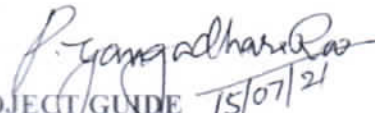


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