

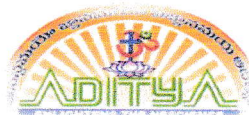
ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

(Permanently affiliated to JNTU, Kakinada and Approved by AICTE, New Delhi)

Aditya Nagar, ADB Road, Surampalem-533437, East Godavari District

Andhra Pradesh

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project entitled **"OPTIMISATION OF EMISSION BY USING GASOLINE BLENDS & TO ENHANCE THE PERFORMANCE OF AN ENGINE"**

Is being

Submitted by

A.BALAJI	15P31A0303	T.V.KALYAN	16P35A0311
CH.SURAJ SINGH	15P31A0313	V.ARUN KUMAR	16P35A0312
CH.VIJAY KUMAR	15P31A0308	CH.SURESH	15P31A0312
A.YAMANTH	15P31A0304	S.SRIDHAR	15P31A0350
		L.ENOCH TEJ	15P31A0318

In partial fulfilment for the award of the Degree of Bachelor of Technology in MECHANICAL ENGINEERING to Aditya college of Engineering & Technology affiliated to Jawaharlal Nehru Technological University, Kakinada is a record of the bonafide work carried out under my guidance and supervision.

The results presented in this project report have not been submitted to any other University or Institution for any degree.

PROJECT GUIDES

HEAD OF THE DEPARTMENT


M.LAKSHMI M.Tech & R.S.M. JYOTHI M.Tech

Assistant professors

Dept. of Mechanical Engineering

Aditya College of Engineering & Technology


T.S.SAGAR M.Tech

Assistant professor

Dept. of Mechanical Engineering

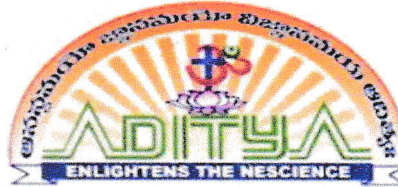
Aditya college of Engineering & Technology


EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY
(Approved by AICTE, Permanently Affiliated to JNTUK, Accredited by NAAC)
Recognized by UGC under section 2 (f) of UGC Act 1956
Kakinada-533003

2015-2019


DEPARTMENT OF MECHANICAL ENGINEERING




CERTIFICATE

This is to certify that the project report entitled “**DESIGN & FABRICATION OF HYDRAULIC LIFT PALLET TRUCK**” is being submitted by **P. B V Sivaram - 15P31A0343, S. Abhi Sai - 15P31A0351, G. Sai Kumar - 15P31A0320, S. Satya Bhaskar - 15P31A0352, K. N S D Shiva Shankar 15P31A0329**, in partial fulfillment for the award of the Degree of Bachelor of Technology in Mechanical Engineering to the Jawaharlal Nehru Technological University, Kakinada is a record of bonafied work carried out under my guidance and supervision.

The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.


Project Guide
Miss R. Gayatri Devi, M.E
Assistant Professor
Department of M.E.
Aditya College of Engg. & Tech.


Head of the Department
Mr. T. S Sagar,
Head of the Department
Department of M.E.
Aditya College of Engg. & Tech.


External Examiner

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, Affiliated to JNTUK, Accredited by NAAC)

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

ADITYA NAGAR, ADB ROAD, SURAMPALEM-533437

2015-2019

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project report entitled **FABRICATION OF GYMBIKE** being submitted by **S.NAVEEN ROYAL, 16P35A0310, B.MANI POSIBABU, 15P31A0305, M.SURENDRA REDDY, 16P35A0310, E.VENKATESH, 15P31A0317, K.DURGA PRASAD, 15P31A0327** In partial fulfilment for the award of the **BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING** to the Jawaharlal Nehru Technological University, Kakinada is a record of bonafied work carried out by them under the esteemed guidance and supervision of **Mrs. A.LALITHA JYOTHI**.

The results embodied in the project report have not been submitted to any other university or institute for the award of any Degree or Diploma

A Lalitha Jyoti
PROJECT GUIDE

Mrs. A. L. JYOTHI

Assistant professor

Dept. of mechanical engineering

Aditya College Of Engg & Tech

Su...
HEAD OF DEPARTMENT

Mr. T. S. SAGAR

Assoc. professor

Dept. of mechanical engineering

Aditya College Of Engg & Tech

CP
EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Affiliated to JNTUK Kakinada, Approved by AICTE, New Delhi, Accredited by NAAC)

Surampalem, A.D.B.ROAD, East Godavari District

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project report entitled “Study of Temperature’s effect on Mild Steel” being submitted by

J. SRIMANTHA RAJU	--	15P31A0325
P. RAJGOPAL	--	16P35A0308
I. LAKSHMI RAVITEJA	--	15P31A0324
V. VARUN VENKATESH	--	15P31A0355
U. ROHIT KRISHNA	--	15P31A0354

In partial fulfillment for the award of the Degree of Bachelor of Technology in Mechanical Engineering to the Jawaharlal Nehru Technological University, Kakinada is a record of bonafied work carried out under my guidance and supervision. The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

Project Guide

Suribabu
02/04/19

Mr. K. Suribabu
Assistant Professor
Department of Mechanical Engineering
Aditya College of Engg & Technology.

Su
Head of the Department

Mr.T.S. Sagar
Assistant Professor
Department of Mechanical Engineering
Aditya College of Engg & Technology

External Examiner

CERTIFICATE

This is to certify that the project report entitled “**DETERMINING THE QUALITY OF STEAM USING CuO NANOFLUID USING SEPARATING AND THROTTLING CALORIMETER**” is being submitted by G. Ganesh – 15P31A0319, O. Bhanu Sucharitha – 15P31A0339, M. Sridhar – 15P31A0336, P. David Manikranth – 15P31A0347, M. Harishchandra Reddy – 15P31A0334. in partial fulfilment for the award of the Degree of Bachelor of Technology in Mechanical Engineering to the Jawaharlal Nehru Technological University, Kakinada is a record of bonafied work carried out under my guidance and supervision.

The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.


Project Guide

Mr. J. Rajashekar

M. Tech

Department of M.E.

Aditya College of Engg. & Tech.

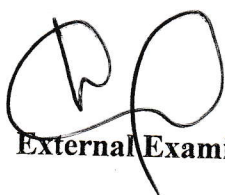

Head of the Department

Mr. T S Sagar

M. Tech

Department of M.E.

Aditya College of Engg. & Tech.


External Examiner

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, NAAC & Affiliated to JNTUK, Kakinada-533003)

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the thesis/dissertation entitled “**FABRICATION OF CONTACTLESS EDDY CURRENT BRAKING SYSTEM**” is being submitted by

P.PAVAN GOVIND RAJULU --- 15P31A0341

CH.NARESH KUMAR --- 15P31A0310

CH.TEJAS KUMAR --- 15P31A0311

K.GANESH --- 15P31A0326

P.CHINNA GOVIND RAJU --- 15P31A0345

In the partial fulfillment of the requirements for the award of Bachelor of Technology, in Mechanical Engineering, during the academic year 2015-2019. The results embodied in this report have not been submitted to any other institute or university for the award of any degree or diploma.


PROJECT GUIDE

Mr. J. RAJASHEKAR, M.TECH

Assistant professor

Department of mechanical engineering

Aditya College of Engg & Technology


HEAD OF THE DEPARTMENT

Mr. T.S. SAGAR M.TECH

Assistant professor

Department of mechanical engineering

Aditya College of Engg & Technology


EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY
(Permanently affiliated to JNTU, Kakinada and Approved by AICTE, New Delhi)
Aditya Nagar, ADB Road, Surampalem-533437, East Godavari District
Andhra Pradesh

DEPARTMENT OF MECHANICAL ENGINEERING
CERTIFICATE

This is to certify that the project entitled

“FABRICATION OF SOLAR WIND POWERED STREET LIGHT”

Is being

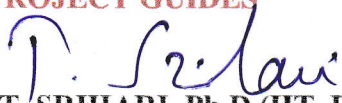
Submitted by

Mr. N. SATISH	16P35A0307
Mr. S.MANIRATNAM	16P35A0305
Mr. G. RAJESH	16P35A0303
Mr. Y. SRIRAM	15P31A0360
Mr. D. ANANDA RAO	15P31A0316

In partial fulfillment for the award of the Degree of Bachelor of Technology in
MECHANICAL ENGINEERING to Aditya college of Engineering & Technology
to Jawaharlal Nehru Technological University, Kakinada is a record of the bonafide work
affiliated carried out under my guidance and supervision.


The results presented in this project report have not been submitted to any other
University or Institution for any degree.

PROJECT GUIDES


Dr. T. SRIHARI, Ph.D (IIT, Delhi)
PROFESSOR

Dept. of Mechanical Engineering
Aditya College of Engineering & Tech

HEAD OF THE DEPARTMENT


T.S.SAGAR M.Tech
Assistant professor

Dept. of Mechanical Engineering
Aditya college of Engineering & Tech


EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY
(Approved by AICTE, Permanently Affiliated to JNTUK, Accredited by NAAC)
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SURAMPALEM-533437

2015-2019

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project report entitled **FABRICAATION OF UNCONVENTIONAL AIR COOLING SYSTEM** is being submitted by **A.SATYA SAI BHARADWAJ(15P31A0301), M.NAVEEN(16P35A0306), V.MANISHANKAR(15P31A0357), V.MANGA DEVI(15P31A0358), M.PRAKASH(15P31A0337)** in partial fulfillment for the award of the Degree of Bachelor of Technology in Mechanical Engineering to the Jawaharlal Nehru Technological University, Kakinada is a record of bonafied work carried out under my guidance and supervision.

The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

Project Guide

CH.PAVANKUMAR, M.Tech
Assistant professor
Department of M.E.
Aditya College of Engg. & Tech.

Head of the Department

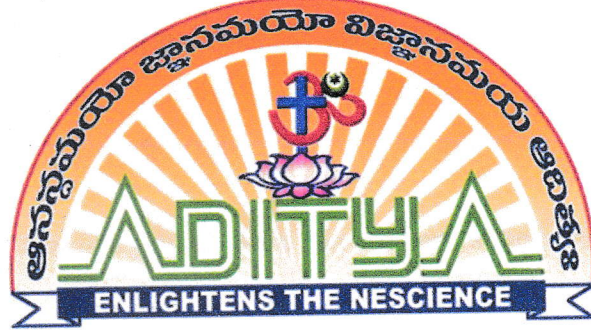
T.S.SAGAR, M.Tech
Associate professor
Department of M.E.
Aditya College of Engg. & Tech.

External Examiner

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to Jawaharlal Nehru Technological University, Kakinada

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project report entitled "DESIGN AND PROTOTYPE OF 3D PRINTED INDUSTRIAL ROBOTIC ARM" submitted by G.SIVA (15P31A0322), K.V.S.MANIDEEP(15P31A0331), S.SATYANARAYA(16P35A0309), G. R.CHAITANYA (15P31A0323), B.RAJESH (15P31A0306) in partial fulfilment for the award of the degree of bachelor of technology in MECHANICAL ENGINEERING to Aditya College Of Engineering and Technology affiliated to Jawaharlal Nehru Technological University, Kakinada is a record of the bonfire work carried out under any 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. P.JAI KISHAN, M.Tech

Assistant professor

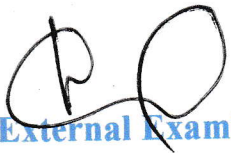
Mechanical engineering


HEAD OF THE DEPARTMENT

Mr. T.S.SAGAR, M.Tech

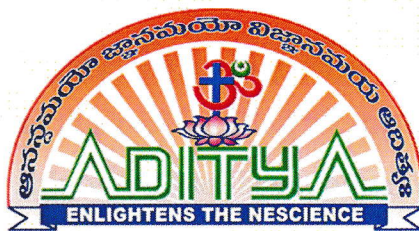
Assistant professor

Mechanical engineering


External Examiner

CERTIFICATE

DEPARTMENT OF MECHANICAL ENGINEERING



This is to certify that the Project report entitled.

FABRICATION OF SOLAR CYCLE

Submitted By

D.VENKATA RAO (16P35A0301)


P.ASHA (15P31A0346)

D.LOKESH (16P35A0302)

R.MANIKANTA (15P31A0349)

M.DURGA PRASAD (15P31A0338)

In partial fulfillment of the requirement for the award of the degree of the Bachelor of Technology in Mechanical Engineering. It is a record of bonafied work, carried out by them under the esteemed guidance and Supervision of Mr. **A.CHIRANJEEVI** M.Tech.


Project guide

Mr. A.CHIRANJEEVI M.Tech

Sr. Assistant Professor

Dept. of Mechanical Engineering
Engineering

Aditya College of Engg& Tech
Engg& Tech


Head of Department

Mr. T.S. SAGAR

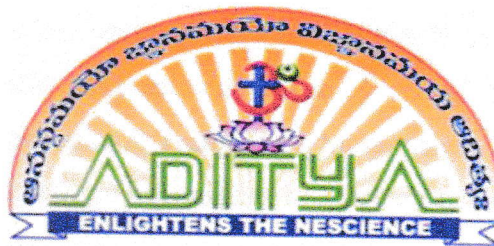
Head of Department

Dept. of Mechanical

Aditya College of


External Examiner

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY
SURAMPALEM



CERTIFICATE

This is to certified that the project entitled **DESIGN AND FABRICATION OF EXOSKELETON ARM** is being submitted by

Gopal karan	15P31A0373
Debashis De	15P31A0314
Subham Shaw	15P31A0353
Raichandra. H	15P31A03A1
U. S. Praveen	15P31A03B6
CH. Avinash	16P35A0315

submitted in partial fulfillment of requirement for the award of Bachelor of Technology degree in Mechanical Engineering during the academic year **2015-2019**. 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.


Signature of the Internal Supervisor

Mr. M. SRINIVAS, M.Tech
Assistant Professor,
Department of Mechanical
Engineering,
Aditya College of Engg. & Tech.
Surampalem


Signature of the Head of Department

Mr. T. S. SAGAR, M.Tech
Assistant Professor,
Department of Mechanical
Engineering,
Aditya College of Engg. & Tech.
Surampalem


EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY
(Permanently affiliated to JNTU, Kakinada and Approved by AICTE, New Delhi)
Aditya Nagar, ADB Road, Surampalem-533437, East Godavari District
Andhra Pradesh

DEPARTMENT OF MECHANICAL ENGINEERING
CERTIFICATE

This is to certify that the project entitled

"FABRICATION OF SOLAR WIND POWERED STREET LIGHT"

Is being

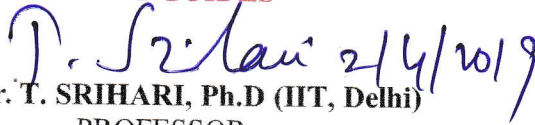
Submitted by

Mr R. SAI	15P31A03A4
Mr S.MANIKANTA SWAM	15P31A03A6
Mr K. RAGHU SAI RAM	15P31A0385
Mr A. RANJITH	16P35A0313
Mr K. LOKESH KUMAR	16P35A0322


In partial fulfillment for the award of the Degree of Bachelor of Technology in MECHANICAL ENGINEERING to Aditya college of Engineering & Technology to Jawaharlal Nehru Technological University, Kakinada is a record of the bonafide work affiliated carried out under my guidance and supervision.

The results presented in this project report have not been submitted to any other University or Institution for any degree.

PROJECT GUIDES


Dr. T. SRIHARI, Ph.D (IIT, Delhi)
PROFESSOR
Dept. of Mechanical Engineering
Aditya College of Engineering & Tech

HEAD OF THE DEPARTMENT


T.S.SAGAR M.Tech
Assistant professor
Dept. of Mechanical Engineering
Aditya college of Engineering & Tech


EXTERNAL EXAMINER

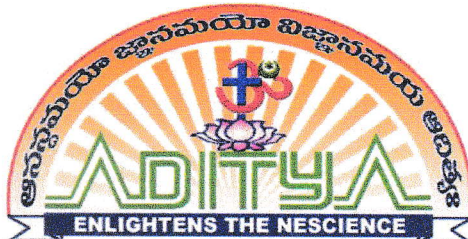
ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Affiliated to JNTU Kakinada, Approved by AICTE, New Delhi)

Surampalem, East Godavari District

2015-2019

Department of Mechanical engineering



CERTIFICATE

This is to certify that the project work entitled “**FABRICATION OF PNEUMATIC SHEET METAL CUTTING MACHINE**” is being submitted by **Mr. MEDISETTI SIVASAI KUMAR(15P31A0389)**, **Mr. GANAGALA NAGARAJU(16P35A0318)**, **Mr. BATHULA SATYA SRINIVAS(15P31A0368)**, **Mr. RAYI RAVINDRA(15P31A03A2)**, **Mr. TIPPA PRASAD(15P31A03B2)** in partial fulfilment of the requirements for the award of Bachelor of technology degree in Mechanical Engineering, During the academic year of 2015-2019.

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.


HEAD OF THE DEPARTMENT

Mr. T. SAGAR

Assistant professor,

Dept. of Mechanical engineering


PROJECT GUIDE

Mr. C. VENKATESH

Assistant professor,

Dept. of Mechanical Engineering


EXTERNAL EXAMINER

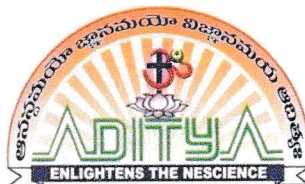
ADITYACOLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, Affiliated to JNTUK, New Delhi)

Surampalem, East Godavari District

2015-19

Department of mechanical engineering



CERTIFICATE

This is to certify that the project work entitled (FUEL EXTRACTION FROM PLASTIC) is being submitted by

V.V.MANIKANTHA (15P31A03B8) K.V.V.V.RAM GANESH (15P31A0384)


D.V.MALLIKARJUNA (16P35A0317) K.N.V.D. AJAY (16P35A0321)


K.S.SWAROOP (15P31A0380) K.S.K.L.REDDY (15P31A0386)

M.HAREESH KUMAR (15P31A0388) R.DURGA KUMAR (15P31A03A3)

P. VARUN SANDEEP (15P31A0397) A.VINOD KUMAR (16P35A0314)

In partial fulfilment of requirements for the award of Bachelor of Technology in Mechanical engineering, during the academic year 2015-2019. The results embodied in this project report have not been submitted to any institute or university for the award of any degree or diploma.


PROJECTGUIDE
ABDUL ARIF
Assistant Professor
Dept. of Mechanical Engineering


HEAD OF THE DEPARTMENT
T.S.SAGAR
Assistant Professor
Dept. of Mechanical Engineering


EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

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Recognized by UGC under section 2(f) of UGC ACT 1956 Kakinada-533003
2015-2019

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is certify that the project entitled “**FABRICATON OF MULTI PURPOSE OPERATING MACHINE**” is being submitted by

A.VEERA BABU (15P31A0362),

G.PRAVEEN KUMAR (15P31A0371),

V.KUMAR RAJA (15P31A03B9),

P.VENKATESH (15P31A0394),

D.APPALA SWAMI (15P31A0369)

in partial fulfilment of the requirement for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2015-2019. The results embodied in this report have not been submitted to any other institute or university for the award of any degree.


PROJECT GUIDE

CH.RAMPRASAD, M.S

Sr.Assistant Professor

Dept of Mechanical Engineering

Aditya College of Engg & Tech


HEAD OF THE DEPARTMENT

M.S T.S.SAGAR M.Tech

Assistant Professor

Dept of Mechanical Engineering

Aditya College of Engg & Tech


EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING & TECNOLOGY

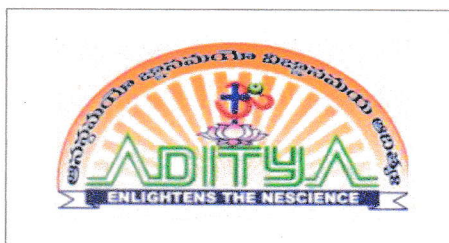
(Approved by AICTE, Permanently Affiliated to JNTUK, Accredited by NAAC)

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

Kakinada-533003

2015-2019

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is certify that the project entitled "Design, Fabrication& Experimental Analysis on Solar Concrete Flat Plate Collector" is being submitted by

A.S.L.Satyanarayana 15P31A0364

G.V.V.Adinarayana 15P31A0376

T.Sai Ram Gowtham 15P31A03A9

T.Balaji 15P31A03B3

S.Rama Krishna 15P31A03A8

In partial fulfilment of the requirement for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2015-2019. The results embodied in this report have not been submitted to any other institute or university for the award of any degree.

E.K.V. Subbarao
Project Guide 01/04/19

E.K.V.SUBBARAO, M.Tech

Assistant Professor

Dept of Mechanical Engineering

Aditya College of Engg & Tech

T.S. Sagar
Head of the Department

T.S.SAGAR, M.Tech

Assistant Professor

Dept of Mechanical Engineering

Aditya College of Engg & Tech

[Signature]
External Examiner

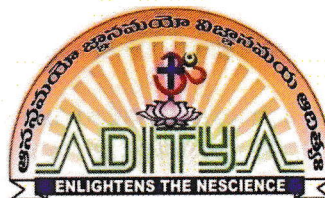
ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, Affiliated to JNTUK, New Delhi)

Surampalem, East Godavari District

2015-19

Department of mechanical engineering



CERTIFICATE

This is to certify that the project work entitled (Fabrication of **MULTI PURPOSE FLOOR CLEANING VEHICLE**) is being submitted by

P.SUDHAKAR (15P31A0324)

G.RAMA KRISHNA (15P31A0370)

A.V.PAVAN KIRAN (15P31A0361)

M.KRISHNA CHAND (15P31A0390)

P.SRINIVAS (15P31A0398)

G.RAMPRASAD (14P31A0368)

CH.VIJAY KRISHNA RAO (15P31A0316)

T.N.S GANGADHAR (15P31A03B1)

P.V.V.SAI MANIDEEP (15P31A0322)

B.SRINIVAS (15P31A0366)

S. LALITH SAI VENKATESH (15P31A03A5)

In partial fulfillment of requirements for the award of Bachelor of Technology in Mechanical engineering, during the academic year 2015-2019. The results embodied in this project report have not been submitted to any institute or university for the award of any degree or diploma.

PROJECT GUIDE

HEAD OF THE DEPARTMENT

E.RAGHAVENDRA YADAV M.Tech

Assistant Professor

Dept. of Mechanical Engineering

Aditya College of Engg.&Tech.

T.S.SAGAR M.Tech

Assistant Professor

Dept. of Mechanical Engineering

Aditya College of Engg.&Tech.

EXTERNAL EXAMINER

ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Affiliated to Jawaharlal Nehru Technological University Kakinada)

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project entitled “**DESIGN AND PROTOTYPING OF QUDRAPED ROBOT USING THEOJANSEN MECHANISM**” submitted by **GUDIVADA RAMESH (15P31A0375)** , **KATA PAVAN KALYAN(15P31A0382)** , **MUDDA JOHN VARAPRASAD(15P31A0391)** , **MUDUNURI TEJA VARMA(15P31A0387)** , **SEELAM VENKATA RAMANA(15P31A03A7)** in partial fulfillment of the degree of Bachelor of Technology in **MECHANICAL ENGINEERING** to Aditya College of Engineering and Technology affiliated to Jawaharlal 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.P.Jaikishan M.Tech

Assistant professor
Mechanical engineering
Date :


HEAD OF THE DEPARTMENT

Mr. S.Sagar M.Tech

Assistant professor
Mechanical engineering
Date:


External Examiner

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

Permanently Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi,
Recognised by UGC under section 2(f) of UGC Act 1956, Accredited to NAAC, ADB Road,
Surampalem-533437



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE


This is to certify that the project work entitled, “FABRICATION OF OMNI AMBULANCE”, is being submitted in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering, during the academic year 2018-2019.


Submitted By

G. UDAY (15P31A0372)
K. YUBRAJ (15P31A03C0)
I.V GIRI (15P31A0377)
P.T SANTOSH (15P31A0395)
B. SUBHASH (15P31A0367)
P. GOPI (15P31A0399)

J.S.V.D.VAMSI (15P31A0379)
G.S.K.VARMA (15P31A0374)
P.R.S.S.KRISHNA (15P31A0396)
T.BHANU PRAKASH (15P31A03B0)
P.VENKATA RAO (15P31A03A0)
K. VINAY (15P31A0381)

The results of this project have not been submitted to any other University or Institute for the award of any diploma or degree.


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EXTERNAL EXAMINER

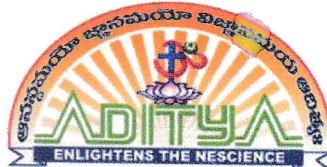
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Affiliated to Jawaharlal Nehru Technological University, Kakinada

Kakinada-533 003

2015-2019

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that work entitled **“INVESTIGATION ON TORQUE IMPROVEMENT OF SMALLSCALE VORTEX TURBINE USING NUMERICAL AND EXPERIMENTAL STUDIES”**, is being submitted by

K.SAIRAM	15P31A03J9
K.MANIKANTA	16P35A0342
G.VENKATESH	15P31A03I8
K.V.V.CHINNA RAO	15P31A03J8
B.SATISH KUMAR	15P31A03I3
M.KARTHIKEYA	15P31A03K9
A.KANAKA SAI PARDHU	15P31A03L0

Submitted in partial fulfillment of the requirements for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2015-2019. The results embodied in this 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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EXTERNAL EXAMINER

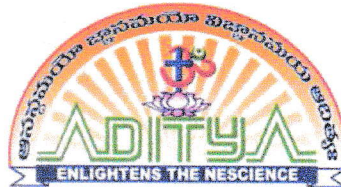
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2015-2019

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that work entitled "EXPERIMENTAL INVESTIGATION ON ENGINE PERFORMANCE AND EMISSION ANALYSIS OF DIESEL ENGINE OPERATED ON MUSTARD OIL BIODIESEL USING Al_2O_3 NANOPARTICLES WITH EGR", is being submitted by

V.VENKATA PRASANNA	15P31A03H2
P.GANESH KUMAR	15P31A03F8
N.KIRAN SAI	15P31A03F5
A.NAGA BHEEMESH	15P31A03H8
Y.SAI RAM	15P31A03H6
M.SURYA NAIDU	15P31A03F0

Submitted in partial fulfillment of the requirements for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2014-2018. The results embodied in this report have not been submitted to any other institute or university for the award of any degree or diploma.

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CERTIFICATE

This is to certify that Design And Fabrication Work entitled

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NATURAL COMPOSITE FIBERS"**, is being submitted by

J.SRIHARI

REGD.NO.15P31A03J7

R.SURESH

REGD.NO.15P31A03M1

M.BHAVANI PRASAD

REGD.NO.15P31A03K8

K.RAJASEKHAR

REGD.NO.15P31A03K1

I.NAVA VINAYBABU

REGD.NO.15P31A03J6

K.BHAGAVATPAD

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M.LAXMAN

REGD.NO.15P31A03K5

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This is to certify that the fabrication work entitled
"EXPERIMENTAL ANALYSIS AND FABRICATION OF 2-WHEELER PISTON WITH GRAPHITE-GRANITE
PARTICLES REINFORCED A 356 HYBRID METAL MATRIX COMPOSITES", is being submitted by

T.RAJESH	- 15P31A03M9
M.VINEETH	- 15P31A03K6
M.SAMPATH KUMAR	- 15P31A03K7
K.ABHISHEK	- 15P31A03K0
CH.AKHIL	- 15P31A03I5
D.ARAVIND	- 15P31A03M0
D.VINAYSAI KUMAR	- 15P31A03I6

Submitted in partial fulfillment of the requirements for the award of Bachelor of Technology in
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have not been submitted to any other institute or university for the award of any degree or diploma.

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Approved by AICTE • Permanently Affiliated to JNTUK •
ADB Road, Surampalem-533437 near KAKINADA, E.G. District


2015-2019



This is to certify that the project report entitled “**DESIGN AND IMPLEMENTATION OF A NOVEL CONTACT LESS PIEZOELCTRIC WIND ENERGY HARVSESTING DEVICE USING CONADA EFFECT**” being submitted by


S. JAYARAM MANIDEEP	15P31A03G4
A. MANOJ KUMAR	15P31A03C8
B. PAVANDURGA PRASAD	15P31A03D1
J. TEJA	15P31A03E2
A. NOOKA RAJU	15P31A03C2
T. JAYA SURYA	15P31A03HI
V.SURESH	14P31A03F4

in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Mechanical Engineering. It is the record of bona-fide work, carried out by them under guidance and supervision.


PROJECT GUIDE

(CH. SWETHA, M. Tech)

ASST.PROFESSOR


HEAD OF THE DEPARTMENT

(H.SURESH BABU RAO M. Tech (Ph.D.))

ASSOC. PROFESSOR


EXTERNAL EXAMINER

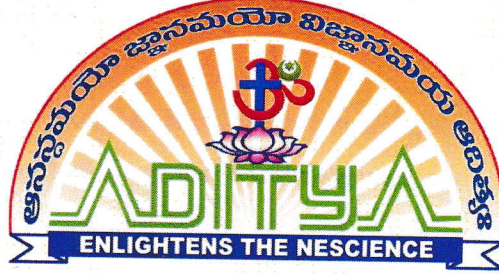
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Kakinada-533 003

2015-2019

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project entitled “**PERFORMANCE AND EMISSION ANALYSIS OF DIESEL ENGINE OPERATING ON MUSTARD BIODIESEL BLENDED WITH Al_2O_3 NANO PARTICALS BY CHANGING INJECTION TIMINGS**”, is being submitted by

MD MOINUDDEN SHAKIR	15P31A03N4	R.S. CHAITANYA	15P31A03L9
G. VEERA SURYA TEJA	15P31A03J0	P.S.S.S. SRINIVAS	15P31A03L7
T. RAKESH	15P31A03M7	G. BHARGAV	15P31A03I9
HARSHIT KUMAR SINGH	15P31A03J4	M. SIMHADRI RAJU	15P31A03L2

Submitted in partial fulfillment of the requirements for the award of Bachelor of Technology in Mechanical Engineering, during the academic year 2015-2019. The results embodied in this report have not been submitted to any other institute or university for the award of any degree or diploma.

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DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the Design & Fabrication work entitled “ **EXPERIMENTAL INVESTIGATION ON ENGINE PERFORMANCE AND EMISSIONS ANALYSIS OF DIESEL ENGINE OPERATED ON MUSTARD OIL BIO DIESEL USING Al_2O_3 NANO PARTICLES ADDITIVE**”, is being submitted by

T. RAMA KRISHNA	15P31A03M8
K.V.S. ANIL KUMAR	15P31A03K4
V.S.G.S. VISWA TEJA	15P31A03N2
R. TEJA SURYA	15P31A03M2
K. BALA SUBRAHMANYAM	15P31A03K2
G. SRINIVAS	15P31A03J2
M.NAVEEN	15P31A03L3

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ASSOC. Professor

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ASSOC. Professor

B. K. RAO
External Examiner