SOLAR POWERED AIR COOOLING SYSTEM FOR CARS WHILE PARKING

PROJECT REPORT

Submitted by

ABDUL HASEEB V P (RCE15ME002)
AHAMMED SUHAIL M (RCE15ME012)
MOHAMED AZHAR (RCE15ME058)
HANEESH T H (RCE15ME045)

To

APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering





CERTIFICATE

This is to certify that the report entitled SOLAR POWERED AIR COOLING SYSTEM WHILE PARKING CARS to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr.Ibish T. Sunny

Assistant prof.

ME Dept.

Partition.

Project Coordinator

Mr.Geno John K.

Assistant prof.

ME Dept.

Head of the dept.

Mr. Sangeeth T.S.

AQUA GENERATOR USING PELTIER EFFECT

PROJECT REPORT

Submitted by

ABDULRAZIK P A RCE15ME004
AZIF A Y RCE15ME038
BIBITO JOSE RCE15ME039
MISHAL RAHMAN RCE15ME057
MOHAMED SHABEEB RCE15ME060

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled AQUA GENERATOR USING PELTIER EFFECT to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor Aghana E L Assistant prof.

ME Dept.

Project Coordinator Geno John K Assistant prof. ME Dept.

Head of the dept Sangeeth T S Assistant Professor Head of the dept., ME

DESIGN AND FABRICATION OF SELF- PROPELLED POWER TROLLEY

PROJECT REPORT

Submitted by

ABIN K B LRCE15ME127

ARJUNT V LRCEI5ME131

ATHUL RAJ K R RCE15ME037

GOPAKUMAR P G LRCE15ME132

To

APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree

caj^f

Bachelor of Technology in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY CHIRAMANANGAD P.O.

AKKIKAVU

APRIL 2019



CERTIFICATE

This is to certify that the project report entitled **DESIGN AND FABRICATION OF SELF-PROPELLED POWER TROLLEY** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Raisen Joy

Assistant prof.

ME Dept.

Project Coordinator

Geno John ·K

Assistant prof.

ME Dept.

Head of Dept.

titud of Dept.

Sangeeth T S

Head of Dept., ME

PLACE: AKKIKAVU

DATE: 25/04/2019

DESIGN AND FABRICATION OF FOOT OPERATED VEHICLE FOR ARMLESS PEOPLE

PROJECT REPORT

Submitted by

AJEESH K S RCE15ME013
ABIL JOY RCE15ME009
AKSHAY RAMESH RCE15ME022
JOSHUAL JOHNSON RCE15ME053

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering





CERTIFICATE

This is to certify that the report entitled **DESIGN AND FABRICATION OF FOOT OPERATED VEHICLE FOR ARMLESS PEOPLE** to APJ Abdul Kalam Technological
University in partial fulfillment of the requirements for the award of the Degree of Bachelor
of Technology in Mechanical Engineering is a bonafide record of the project work carried out
by them under my/our guidance and supervision. This report in any form has not been
submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr. Gopi Krishna N

Assistant prof.

ME Dept.

Project Coordinator

Mr. Geno John K

Assistant prof.

ME Dept.

Head of the department

Mr. Sangeeth T S

DESIGN AND FABRICATION OF COCONUT HARVESTING ROBOT

PROJECT REPORT

Submitted by

AKHIL V RCE15ME019

ABDUL RASHID K RCE15ME003

AJMAL ROSHAN T LRCE15ME128

MOHAMED SADHIK KM RCE15ME064

To

the APJ Abdul Kalam Technological University
in partial fulfillment of the equirements for the award of the Degree
of

Bachelor of Technology in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING
ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY
CHIRAMANANGAD P.O.
AKKIKAVU

APRIL 2019



CERTIFICATE

This is to certify that the report erailed 'DESIGN AND FABRICATION OF COCONUT HARVESTING ROBOT' submitted to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

drog upon

Internal Supervisor

Leo A J

Assistant prof.

ME Dept.

Project Coordinator

Geno John k

Assistant prof.

ME Dept.

Head of the dept

Sangeeth T S,

Assistant Professor

SOLAR POWERED AIR PURIFICATION SYSTEM USING ELECTROSTATIC PRECIPITATOR

PROJECT REPORT

submitted by

AKSHAY A RCE15ME021
ASHWIN AJAY RCE15ME035
AJESH PREMNATH P RCE15ME014
MOHAMED NASIF SANEEN RCE15ME062

To

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the

Degree of

Bachelor of Technology in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING
ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY
CHIRAMANANGAD P.O.

AKKIKAVU APRIL 2019



BONAFIDE CERTIFICATE

This is to certify that the report SOLAR POWERED AIR PURIFICATION SYSTEM USING ELECTROSTATIC PRECIPITATOR to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.



Mr. Geno John K

Assistant prof.

ME Dept.



Project Coordinator

Mr.Geno John K

Assistant prof.

ME Dept.



Head of the dept

Mr.Sangeeth T S

Head of the dept.

ME Dept.

FABRICATION OF SMART CRASH SENSING HELMET

PROJECT REPORT

Submitted by

AMAL V B

RCE15ME027

ANAND S MENON

RCE15ME028

AKSHAY KUMAR P A

RCE15ME024

AJMAL P V

RCE15ME015

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Te

logy in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY CHIRAMANANGAD P.O.

AKKIKAVU APRIL 2019



CERTIFICATE

This is to certify that the report entitled **FABRICATION OF SMART CRASH SENSING HELMET** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr. MANEESH V

Assistant prof.

ME Dept.

Project Coordinator

Mr. GENO JOHN K

Assistant prof.

ME Dept.

Head of the dept

Mr. SANGEETH T S,

Assistant Prof.

COMPOSITE MATERIAL USING BANANA AND SISAL FIBRE TO COMAPARE WITH STANDERD PLASTIC

PROJECT REPORT

Submitted by

AMARJINAL K LRCE15ME129

MELBINJAMES LRCE15ME133

SINTO ANTONY RCE15ME111

SHAMEEM ALI N RCE15ME081

To

The APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree

Of

Bachelor of Technology in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY CHIRAMANANGAD P.O.

AKKIKAVU APRIL 2019



BONAFIDE CERTIFICATE

This is to certify that the report entitled **COMPOSITE MATERIAL USING BANANA**, **SISAL FIBRE TO COMPARE WITH STANDARD PLASTIC** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr. IBISH T SUNNY

Assistant professor

Dept. of mechanical

engineering

Project Coordinator

Mr. LEO A J

Assistant professor

Dept. of mechanical

engineering

Head of the dept

Mr. SANGEETH T S,

HOD, Mechanical

engineering

DESIGN AND FABRICATION OF HYBRID SCOOTER

PROJECT REPORT

Submitted by

ARJUN M A RCE15ME031
ASWATH T S RCE15ME036
DHANIL K S RCE15ME040

HAFIS ALI RCE15ME043

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY CHIRAMANANGAD P.O.

AKKIKAVU APRIL 2019



CERTIFICATE

This is to certify that the report entitled **DESIGN AND FABRICATION OF HYBRID SCOOTER** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr. Sandeep K.

Assistant Professor

ME Dept.

Project Coordinator

Mr. Geno John K.

Assistant Professor

ME Dept.

Head of the dept

Mr. Sangeeth T.S.

SPEED RECOGNIZED PNEUMATIC BUMPER

PROJECT REPORT

Submitted by

FADHIL FAKHRUDHEEN REG NO :RCE15ME042
HAFSHAD MAJEED REG NO :RCE15ME044
HARIPRASAD C.C REG NO :RCE15ME046
A.V.VIBIN REG NO :RCE15ME001

To

the APJ Abdul Kalam Technological University $in\ partial\ fulfillment\ of\ the\ requirements\ for\ the\ award\ of\ the\ Degree$ of

Bachelor of Technology in Mechanical Engineering





CERTIFICATE

This is to certify that the report entitled SPEED RECOGNIZED PNEUMATIC BUMPER to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Ms.Neethu P

Assistant prof.

ME Dept.

Project Coordinator

Geno John k

Assistant prof.

ME Dept.

Head of the dept

Sangeeth T S,

Assistant Professor

DESIGN AND FABRICATION OF THERMAL ENERGY STORAGE USING PCMs

PROJECT REPORT

Submitted by

MOHAMMED U.H.

(RCE15ME069)

MOHAMMED HARIS N.A. (RCE15ME070)

VIKAS M.D.

(RCE15ME120)

SURYA T.S.

(RCE15ME118)

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled **THERMAL ENERGY STORAGE USING PCMs** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Leo A J

Assistant prof.

ME Dept.

Project Coordinator

Leo A J

Assistant prof.

ME Dept.

Head of the dept

Sangeeth T S

Assistant Professor

BED AIR CONDITIONING SYSTEM

PROJECT REPORT

Submitted by

MOHAMMED NASEEF -RCE15ME068

SARATH PS -RCE15ME104

MOHAMMAD ASHIR -RCE15ME066

SHAHEL MOIDEEN -RCE15ME106

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY CHIRAMANANGAD P.O. AKKIKAVU

APRIL 2019



Bonafide CERTIFICATE

This is to certify that the report entitled **BED AIR CONDITIONER** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Sandeep K,

Assistant professor

ME Dept.

Project Coordinator

Leo A J,

Assistant professor

ME Dept.

Head of the dept

Sangeeth T S,

Assistant Professor

COOLING USING PELTIER AND ZEER POT

PROJECT REPORT

Submitted by

MUSFAR IBRAHIM - RCE15ME082

PRAVEEN P.P. - RCE15ME90

RAGENDH M.S. - LRCE15ME135

RAHUL E.R. - LRCE15ME136

To

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of

Bachelor of Technology in Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING ROYAL COLLEGE OF ENGINEERING & TECHNOLOGY CHIRAMANANGAD P.O.

AKKIKAVU APRIL 2019



BONAFIDE CERTIFICATE

This is to certify that the report entitled **COOLING USING PELTIER AND ZEER POT** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Ranju Joy

Assistant prof.

ME Dept.

Project Coordinator

Leo A.J

Assistant prof.

ME Dept.

Head of the dept

Sangeeth T S,

Assistant Professor

DESIGN AND FABRICATION OF PAPER RECYCLING MACHINE

PROJECT REPORT

Submitted by

NANDAGOPAN O S (RCE15ME084)

RAHULC

(RCE15ME093)

RINO K R

(RCE15ME095)

To

the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree

0)

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled **DESIGN AND FABRICATION OF PAPER RECYCLING MACHINE** to the APJ Abdul Kalam Technological
University in partial fulfillment of the requirements for the award of the Degree of
Bachelor of Technology in Mechanical Engineering is a bonafide record of the project
work carried out by them under my/our guidance and supervision. This report in any
form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr.Geno John K

Assistant prof.

ME Dept.

Project Coordinator

Mr.Leo A.J

Assistant prof.

ME Dept.

Head of the dept

Mr.Sangeeth T S,

Assistant Professor

ELEPHANT IMMOBILIZER

PROJECT REPORT

Submitted by

RAHIB M.A RCE15ME087
RAMZEEN RCE15ME092
RCE15ME094

VISHAL VENU

To

RCE15ME122

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled ELEPHANT IMMOBILIZER to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Ms. Neethu P Assistant prof.

ME Dept.

Project Coordinator Mr. Leo A J

Assistant prof. ME Dept.

Head of the dept

Mr. Sangeeth T S Assistant Professor

STANDING WHEELCHAIR FOR SEMI-PARALYZED PEOPLE

PROJECT REPORT

Submitted by

PATIL SURAJ SHIVAJI (RCE15ME089)

NAMSHAD EK (RCE15ME083)

SREERAG KRISHNAN P (RCE15ME115)

SULAIMAN EH (RCE15ME116)

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of
Bachelor of Technology in Mechanical Engineering





Bonafide CERTIFICATE

This is to certify that the report entitled STANDING WHEELCHAIR FOR SEMI-PARALYZED PEOPLE to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

SANGEETH T S,

Assistant prof.

ME Dept.

Project Coordinator

LEO A J,

Assistant prof.

ME Dept.

Head of the dept SANGEETH T S.

Assistant prof.

Allin

RF CONTROLLED BEACH CLEANING VEHICLE

PROJECT REPORT

Submitted by

SACHIN K V, RCE15ME098 ROSHITH V T, RCE15ME097 SHAHIR M, RCE15ME107 MOHAMMED NADEER C, RCE15ME074

To

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled **RF CONTROLLED BEACH CLEANING VEHICLE** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Ms. AGHANA E L

Assistant prof.

ME Dept.

196/5/19

Project Coordinator

Mr. LEO A J

Assistant prof.

ME Dept.

Head of the dept

Mr. SANGEETH T.S.

Assistant Professor

DESIGN AND FABRICATION OF ARDUINO ASSISTED ABS

PROJECT REPORT

Submitted by

SAMMON, RCE15ME100 SANJEED T.K, RCE15ME103 S.M HARIS, RCE15ME108 VINESH M.V, RCE15ME121

To

APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled **DESIGN AND FABRICATION OF ARDUINO ASSISTED ABS** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr. DILEEPAN

BALAKRISHNAN

Assistant prof.

ME Dept.

10000

Project Coordinator

Mr. LEO A.J

Assistant prof.

ME Dept.

Head of the dept

SANGEETH T S,

Assistant Professor

Head of the dept.

ME

AN INVESTIGATIVE AND COMPARITIVE STUDY; WPPO

(WASTE PLASTIC PYROLYSIS OIL)

PROJECT REPORT

Submitted by

SHAHAL BASHEER, LRCE15ME138 PRAVEEN KP, LRCE15ME134 THOMSON GEORGE, LRCE15ME139 SULFIKAR ALI LATHEEF, RCE15ME117

To

the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled **AN INVESTIGATIVE AND COMPARITIVE STUDY; WPPO** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Mr. YOOSAF P P

Assistant professor

Dept. of Mechanical

Engineering

Project Coordinator

Mr.LEO A J

Assistant professor

Dept. of Mechanical

Engineering

Head of the dept

Mr.SANGEETH T S,

Assistant Professor

HoD, Mechanical

Engineering

DESIGN & FABRICATION OF PEPSO REFRIGERATOR

PROJECT REPORT

Submitted by

SHIYAF, RCE15ME110

NIDHEESH C M, RCE15ME086

SANJAIKUAMR T S, RCE15ME102

MUHAMMED SHAHEEN C, RCE15ME080

To

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology in Mechanical Engineering





BONAFIDE CERTIFICATE

This is to certify that the report entitled **DESIGN & FABRICATION OF PEPSO REFRIGERATOR** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.



Internal Supervisor
Mr.GOPI KRISHNA N
Assistant prof.
ME Dept.



Project Coordinator

Mr.LEO A J

Assistant prof.

ME Dept.

Head of the dept
Mr.SANGEETH T S,
Assistant Professor
Head of the dept., ME