

Dr. Ambedkar Institute of Technology
Department of Mechanical Engineering

The documents enclosed are verified and approved.



HOD

Dept. of Mechanical Engineering

Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bengaluru - 560 056.



Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,

BANGALORE – 560056

(An Autonomous Institution Affiliated to Visvesvaraya Technological University, Belagavi)

DEPARTMENT OF MECHANICAL ENGINEERING

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
1	1DA18ME074	NITHIN N	DEVELOPMENT AND TESTING OF SYNTHETIC AND NATURAL FIBRE REINFORCED HYBRID COMPOSITE	C Ramprasad	Dr. AIT
	1DA18ME089	RAGHU G			
	1DA18ME093	RAJATH S			
	1DA18ME0107	SANJAY KUMAR D C			
2	1DA18ME014	ANMOL N	EXPERIMENTAL STUDIES FOR THE MECHANICAL BEHAVIOUR OF A18011 ALUMINIUM ALLOYS REINFORCED WITH CNT METAL MATRIX COMPOSITES	Dr. M M Vishwanath	Dr. AIT
	1DA18ME018	BARKATH KHAN			
	1DA18ME024	CHETHAN			
	1DA18ME031	DEEKSHITH G NAYAK			
3	1DA18ME048	JAYANTH KUMAR H K	Design and development of Motor Cycle Helmet using Natural Fiber	Dr. M M Vishwanath	Dr. AIT
	1DA18ME053	KISHORE N			
	1DA18ME073	NITHIN KUMAR B S			
	1DA18ME0111	SHAMIK PATIL			
4	1DA18ME057	MAHADEV REDDY	CFD ANALYSIS OF AUTOMATIVE RADIATOR FOR ENHANCED HEAT TRANSFER USING NANOFLUIDS	Byregowda K C	Dr. AIT
	1DA18ME066	N N AMOGHA RAO			
	1DA18ME091	RAJAT S NAVARATHNA			
	1DA18ME101	ROHITH KUMAR K N			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
5	1DA18ME008	AKSHAY R HEGDE	DROP WEIGHT IMPACT ANALYSIS OF BASALT - KEVLAR REINFORCED POLYESTER COMPOSITES	Rajesh Chandra C	Dr. AIT
	1DA18ME009	AKSHAY KUMAR VAIDYA			
	1DA18ME016	BALAJIGOWDA H S			
	1DA18ME046	INDRESH SRINIVAS KATTI			
6	1DA18ME052	KIRAN	EXPERIMENTAL STUDIES ON JET IMPINGEMENT COOLING OF A HEAT SINK	Sharath Kumar S N	Dr. AIT
	1DA18ME060	MALLIKARJUN			
	1DA18ME072	NISHANTH			
	1DA18ME098	RAVIKANTH R PATIL			
7	1DA18ME054	KRISHNA POL	EXPERIMENTAL INVESTIGATION OF MICRO-CHANNEL HEAT EXCHANGER USING Al ₂ O ₃ (NANO-FLUID)	Byregowda K C	Dr. AIT
	1DA18ME069	NANDITHA R			
	1DA18ME100	RESHMA N			
	1DA18ME138	VINUTHA K V			
8	1DA18ME050	K HANUMANTHA	JOINING OF ALUMINIUM AND STEEL USING SURFACING AND FRICTION STIR WELDING	Dr. Mahadevasamy M	Dr. AIT
	1DA18ME078	PAVAN P			
	1DA18ME088	RACHAPPA			
	1DA18ME095	RAKESH GOUNDI			
9	1DA15ME021	C V K SAI JAGADISH	DESIGN OPTIMISATION & DEVELOPMENT OF MONOWHEEL BIKE	S K Jagadeesh	Dr. AIT
	1DA15ME026	CHIRANJEEVI R B			
	1DA18ME064	MANOJ S			
	1DA18ME068	NAGESH			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
10	1DA18ME067	NAGARAJ L	CFD ANALYSIS OF PIN FIN HEAT SINK WITH A SINGLE AND MULTI JET IMPINGEMENT CONDITION	Sharath Kumar S N	Dr. AIT
	1DA18ME113	SHASHANK GOWDA P K			
	1DA18ME047	JAGAN SIMHA			
	1DA18ME002	ABHILASH K A			
11	1DA17ME105	PRABHU	THE EFFECT OF MACHINING ENVIRONMENT ON TURNING PERFORMANCE OF ASTEMPERED DUCTLILE IRON	Chandrashekar M	Dr. AIT
	1DA16ME115	UMESH			
	1DA17ME161	VISHAL PATIL			
	1DA17ME084	MANOJ JANGID			
12	1DA18ME071	NIRANJAN Y P	EFFECT OF ZIRCONIUM DIOXIDE NANO PARTICLES ON MICRO STRUCTURE AND WEAR BEHAVIOUR OF HYBRID GLASS FIBER REINFORCED POLYMER	Manjunath H S	Dr. AIT
	1DA18ME077	PAVAN KUMAR S D			
	1DA18ME058	MAHESH B R			
	1DA18ME087	R HEMANTH			
13	1DA18ME028	CHIRAG G S	SYNTHESIS AND ANALYSIS OF BIODIESEL USING JATROPHA CURCAS SEEDS	T Srinath	Dr. AIT
	1DA18ME015	ASHRAF			
	1DA18ME006	AKASH			
	1DA18ME021	C PRAJNAN			
14	1DA19ME414	MOHAMMED FAISAL	EXPERIMENTAL INVESTIGATION ON CRDI ENGINE BY VARYING INJECTION TIMING AND PRESSURE WITH COMBUSTION CHARACTERISTICS	Vinod K L	Dr. AIT
	1DA19ME413	MALLIKARJUN K B			
	1DA19ME412	MALLIKARJUN B			
	1DA19ME400	ABDUL SALAM			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
15	1DA18ME010	AKSHITH KUMAR K N	SOLAR BASED MULTI PURPOSE AGRICULTURAL ROBOT	Dr. B Gangadhar Shetty	Dr. AIT
	1DA18ME017	BANNAPPA PATROT			
	1DA18ME019	BHARATH G			
	1DA18ME056	MADHU C			
16	1DA18ME011	AMITH R S	STUDY ON 7075 ALUMINUM ALLOY UNDER T-7 CONDITION	Dr. Pavan Tejaswi T	Dr. AIT
	1DA18ME082	PRAJWAL			
	1DA18ME096	RAKSHITH N			
	1DA18ME062	MANOJ K			
17	1DA18ME110	SATHVIK M PATEL	GENERATIVE DESIGN AND FABRICATION OF A SWING ARM SUITABLE FOR ELECTRIC VEHICLE	Venkatesha Reddy	Dr. AIT
	1DA18ME112	SHARAT M K			
	1DA18ME092	RAJATH J M			
	1DA18ME104	SACHIN B TALAKERI			
18	1DA18ME099	REDDY KUMAR V	FABRICATION, TESTING AND COMPARISON OF NATURAL AND SYNTHETIC FIBER REINFORCED POLYMER COMPOSITES	C Ramprasad	Dr. AIT
	1DA18ME084	PRAVEEN KUMAR R			
	1DA18ME090	RAGHU V T			
	1DA18ME081	PRAJWAL B M			
19	1DA19ME416	NAVEENA M R	DESIGN AND DEVELOPMENT OF FOLDABLE ELECTRIC MOPED	Tejesh S	Dr. AIT
	1DA19ME407	CHARAN C			
	1DA19ME411	KUMARSWAMY M D			
	1DA19ME421	RUDRESH			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
20	1DA19ME404	BHASKAR N	EXPERIMENTAL INVESTIGATION OF MECHANICAL CHARACTERISTICS OF EPOXY WITH RAMIE & SILK FIBRE REINFORCED COMPOSITES	Dr. M M Nataraja	Dr. AIT
	1DA18ME012	AMODH C NADIGER			
	1DA18ME037	GURUKIRAN S N			
	1DA18ME043	HARSHITH KUMAR			
21	1DA18ME004	ADITYA	DESIGN AND PERFORMANCE ANALYSIS OF TANKLESS SOLAR WATER HEATER FOR DOMESTIC APPLICATIONS	Doddanna K	Dr. AIT
	1DA18ME023	CHANDRASHEKAR MOLKERE			
	1DA18ME080	PRAJWAL			
	1DA18ME135	VINAY H M			
22	1DA19ME423	SANDEEPA GOWDA	EVALUATION OF ANTI CORROSION PROPERTIES OF AITiB ₂ COMPOSITES PRODUCED BY STIR CASTING METHOD	Amith Kumar S N	Dr. AIT
	1DA19ME415	NAVEENA K S			
	1DA19ME417	NAVEENA V			
	1DA19ME408	CHARAN R N			
23	1DA19ME410	KSHITIJ K	DESIGN AND DEVELOPMENT OF ROBOTIC ARM USING STRAIN WAVE GEAR MECHANISM	Dr. T N Raju	Dr. AIT
	1DA19ME419	RAGHAVENDRA S			
	1DA19ME409	DHANUSHGOWDA K S			
	1DA19ME418	NITHISH MITHRA T			
24	1DA18ME059	MALAGOUD PATIL	FABRICATION OF SOLAR WATER HEATER FOR POWER GENERATION	Dr. K M Purushothama	Dr. AIT
	1DA18ME079	PAVAN R			
	1DA18ME094	RAJESH K			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
25	1DA18ME076	PAVAN J	STUDY ON THE WATER RETENTION TEST ON SILANE TREATED BASALT/KEVLAR EPOXY HYBRID COMPOSITES	Dr. Bhanuprathap R	Dr. AIT
	1DA18ME105	SALIL DESHPANDE			
	1DA18ME106	SANJAY H P			
	1DA18ME108	SANJITH P S			
26	1DA19ME422	SAGAR B	IMPACT OF REPETATIVE CORRUGATION & STRENGTHENING ON MICRO STRUCTURE, MECHANICAL PROPERTIES OF STAINLESS STEEL	Dr. Bhanuprathap R	Dr. AIT
	1DA19ME427	SUDHINDAR K S			
	1DA19ME428	SYED ANWAAR ASHRAFF			
	1DA19ME430	VIMALA S			
27	1DA18ME118	SIDDARTH	EFFECT OF COLD ROLLING ON MICRO STRUCTURE OF ALUMINIUM COMPOSITES AND STUDY OF ITS MECHANICAL PROPERTIES	Chandan R	Dr. AIT
	1DA18ME122	SUHAS			
	1DA18ME130	TEJAS B H			
	1DA17ME056	HARSHITHA V			
28	1DA19ME425	SHASHANK A	SYNTHESIS AND CHARACTERISATION OF GLASS FIBER AND CARBON NANO TUBE REINFORCED HYRID COMPOSITES	Dr. Mohan Kumar B	Dr. AIT
	1DA19ME431	VINAY KUMAR M G			
	1DA19ME434	YOGESH M			
	1DA19ME435	YUVARAJACHARI A			
29	1DA18ME070	NIKHIL SURYAN	STUDY OF FLOW PATTERNS OVER A HEAT SINK USING SMOKE GENERATOR	Dr. Sathish S	Dr. AIT
	1DA18ME065	MOHAMMED SUMAIR			
	1DA18ME121	SUFIYAN AHMED S			
	1DA18ME124	SUKESH			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
30	1DA18ME022	CHANDAN P KESTUR	DESIGN AND FABRICATION OF ADVANCED MULTI PURPOSE AGRICULTURAL VEHICLE	Jayanth H	Dr. AIT
	1DA18ME026	CHETHAN KUMAR N R			
	1DA18ME027	CHETHAN S BSETTY			
	1DA18ME034	GANGADHAR GOWDA			
31	1DA18ME114	SHIVAKUMAR P K	THE INFLUENCE OF COMPOSITION AND AUSTEMPERING TEMPERATURE ON MACHINABILITY (MILLING) OF AUSTEMPERED DUCTILE IRON	Srinivasu N	Dr. AIT
	1DA18ME116	SHREYASRAJU R K			
	1DA18ME127	SUNIL N S			
	1DA18ME133	VARSHITHA S			
32	1DA18ME129	SYED ATEEQUE MOINUDDIN QUADRI	DESIGN AND FABRICATION OF SOLID WASTE COLLECTING ROOT IN WATER BODIES USING IOT	Dr. A S Prashanth	Dr. AIT
	1DA18ME132	THULASI RAM T R			
	1DA18ME139	VISHAL			
	1DA18ME140	VISHWANATH ABHISHEK M			
33	1DA18ME103	S VIGNESH PRABHU	THE INFLUENCE OF ASTEMPERING CONDITIONS ON THE MACHINABILITY (TURNING) OF CARBIDIC ASTEMPERED DUCTILE IRON	Srinivasu N	Dr. AIT
	1DA18ME063	MANOJ M			
	1DA18ME128	SURYA K			
	1DA18ME145	YOGESH N			
34	1DA18ME142	YASHRAJ B GOUDAR	STUDY ON THE QUASI STATIC TESTS OF SILANE TREATED BASALT/KEVLAR EPOXY HYBRID COMPOSITES	Shashikantha N	Dr. AIT
	1DA18ME137	VINAYAKA DESHPANDE			
	1DA18ME143	YASHWANTH E V			
	1DA18ME141	VIVEK G S			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
35	1DA18ME115	SHIVASHANKAR T C	DESIGN AND FABRICATION OF DRY LAND AGRICULTURAL CULTIVATOR	Preethi K	Dr. AIT
	1DA18ME126	SUMATH K N			
	1DA18ME134	VEERESH R			
	1DA18ME125	SUMANTH			
36	1DA19ME401	ABHISHEK V	STUDY ON THE PHYSICAL PROPERTIES OF NaOH TREATED BASALAT/KEVLAR EPOXY HYBRID COMPOSITES	Dr. Ranjith V	Dr. AIT
	1DA19ME406	CHANDAN K			
	1DA19ME426	SHREYAS R			
	1DA19ME403	BHARATH K L			
37	1DA18ME013	AMRUTH N R	DESIGN AND FABRICATION OF SOLAR GRASS CUTTER	Dr. H A Shivappa	Dr. AIT
	1DA18ME131	TEJAS T			
	1DA18ME119	SUBRADEEP MANNA			
	1DA18ME144	YATHIN M P			
38	1DA17ME048	GAGAN H SHAH	DESIGN OF ECO-FRIENDLY ELECTRIC VEHICLE	Dr. SHIVAPPA H A	Dr. AIT
	1DA17ME083	MANOJ K R			
	1DA17ME156	VARSHA B A			
	1DA17ME091	MOHAN B			
39	1DA18ME007	AKHILESH S	DESIGN AND FABRICATION OF ELECTRIC SCOOTER	Dr. Gangadhar N	Dr. AIT
	1DA18ME421	MANOJ KUMAR S			
	1DA18ME035	GOKUL A			
	1DA18ME117	SHUBAM			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
40	1DA18ME045	HEMANTH KUMAR T N	SYNTHESIS AND THERMAL STUDIES ON COPPER OXIDE (CuO) NANO FLUIDS	Dr. Mohan Kumar B	Dr. AIT
	1DA18ME044	HEMANTH KUMAR H S			
	1DA18ME042	HARISH T K			
	1DA18ME040	H N ROHITH			
41	1DA18ME003	ABHISHEK M V	PORTABLE INCUBATION SYSTEM FOR PLANT GROWTH USING HYDROPONIC TECHNIQUE	Dr. H M Somashekar	Dr. AIT
	1DA18ME029	DAWOOD MUZAWAR			
	1DA18ME033	DEEPAK N			
	1DA18ME030	DEEKSHITH			
42	1DA18ME036	GOWTHAM M R	FABRICATION OF LOW COST MECHANICAL VENTILATOR WITH PATIENT MONITORING	Dr. H M Somashekar	Dr. AIT
	1DA18ME041	HARIPRASAD			
	1DA18ME025	CHETHAN K			
	1DA18ME032	DEEKSHITH J N			
43	1DA18ME001	ABHAY P DEVANGAVI	1-D SIMULATION STUDIES ON IMPACT OF HVAC SYSTEM LOAD ON ELECTRIC VEHICLE	Aravinda D	Dr. AIT
	1DA18ME049	JIM PATRICK PEREIRA			
	1DA18ME005	AJAYSHANKAR A			
	1DA18ME020	BIRADAR ABHISHEK			
44	1DA19ME405	CHETHAN C	LOW COST SOLAR CUM BATTERY POWERED HYBRID CHAINLESS DRIVE SYSTEM TRICYCLE FOR PHYSICAL CHALLENGED PERSONS	Dr. Rajesh M	Dr. AIT
	1DA19ME424	SANTOSH			
	1DA19ME429	UMESH			
	1DA19ME433	VISHWANATH N			

Gr. No.	USN	Name of the Student	Title of the Project	Name of the Guide	Place of Work
45	1DA18ME051	KARTHIK S	EXPERIMENTAL AND COMPUTATIONAL STUDIES FOR THE TEMPERATURE FIELDS TO ESTIMATE PEAK TEMPERATURE AND COOLING RATES IN LASER BEAM WELDING OF AISI304 STEEL	Rathika M	Dr. AIT
	1DA18ME075	PAVAN			
	1DA18ME097	RAVI KUMAR B			
	1DA18ME102	S MANJUNATH			

PROJECT REPORT ON
"DEVELOPMENT AND TESTING OF SYNTHETIC FIBER AND
NATURAL FIBER REINFORCED HYBRID COMPOSITE"



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnanasangama", Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE OF
BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

NITHIN N

1DA18ME074

RAGHU G

1DA18ME089

RAJATH S

1DA18ME093

SANJAY KUMAR D C

1DA18ME0107

Internal Guide

External Guide

Mr. RAMPRASAD C
Assistant professor
Dept. of Mech
Dr. AIT

**Dr. PRADEEP KUMAR
KUSHWAHA**
Scientist C
IPIRTI Bengaluru

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)



DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)

Department of Mechanical Engineering



CERTIFICATE

This is to certify that the Major project work (Eight Semester) entitled “DEVELOPMENT AND TESTING OF SYNTHETIC AND NATURAL FIBRE REINFORCED HYBRID COMPOSITE” is carried out by NITHIN N (1DA18ME074), RAGHU G (1DA18ME089), RAJATH S (1DA18ME093) and SANJAY KUMAR D C (1DA18ME107), Bonafede students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B. E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-22. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report. It is further certified that this work has not been submitted to any university/organization for the award of any other degree or diploma or certificate including a similar degree. The project report has been approved satisfying the academic requirements prescribed for the said Degree.

Signature of guide
(Mr. RAMPRASAD C)

Signature of HOD
(Dr. T.N. RAJU)

Signature of Principal
(Dr. M MEENAKSHI)

External Viva:

Name of the Examiner

1. Dr. SATHISH S
2. Dr. U.S. Mallikarjun

Signature with date

18.07.2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi , Accredited
by NAAC with A Grade)



PROJECT REPORT

On

“EXPERIMENTAL STUDIES FOR THE MECHANICAL BEHAVIOUR OF AL8011 ALUMINIUM ALLOYS REINFORCED WITH CNT METAL MATRIX COMPOSITES”

A dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfillment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING

Submitted By

Anmol N	1DA18ME014
Barkath Khan	1DA18ME018
Chethan	1DA18ME024
Deekshith G Nayak	1DA18ME031

Under the guidance of

Dr. Vishwanath M M B.E, M-Tech, Ph.D.

Asst. Professor

Department of Mechanical Engineering
Dr. Ambedkar institute of Technology, Bangalore

DEPARTMENT OF MECHANICAL ENGINEERING
Dr. Ambedkar Institute Of Technology, Bangalore
2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi ,Accredited by
NAAC with A Grade)



CERTIFICATE

This is to certify that the Major project work titled “**EXPERIMENTAL STUDIES FOR THE MECHANICAL BEHAVIOUR OF AL8011 ALUMINIUM ALLOYS REINFORCED WITH CNT METAL MATRIX COMPOSITE**” is carried out by **ANMOL N, BARKATH KHAN, CHETHAN, DEEKSHITH G NAYAK**. Bonified students of **Dr Ambedkar Institute of Technology Bengaluru-56**. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature of the Guide


Signature of the HOD


Signature of the Principal


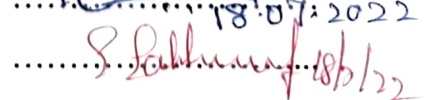
Dr. Vishwanath M M *PBE, M-Tech (TPE), PhD*
Asst. Professor.
Department of Mechanical Engineering
Ambedkar Institute of technology
Bangalore -560056

EXTERNAL VIVA VOICE

Name of the Examiners

1. Dr. U S Mallikarjuna
2. Dr. SATYISH S

Signature with date


..... 18.07.2022

..... 18/7/22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited
by NAAC with A Grade)



PROJECT REPORT
On

**“DESIGN AND DEVELOPMENT OF MOTOR CYCLE HELMET
USING NATURAL FIBER”**

A dissertation submitted to Visvesvaraya Technological University, Belagavi.
In the partial fulfillment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

Jayanth Kumar H K	1DA18ME048
Kishore N	1DA18ME053
Nithin Kumar B S	1DA18ME073
Shamik Patil	1DA18ME111

Under the guidance of
Dr. Vishwanath M M BE, M-Tech, Ph.D.
Asst, Professor
Department of Mechanical Engineering
Dr. Ambedkar institute of Technology, Bangalore

DEPARTMENT OF MECHANICAL ENGINEERING
Dr. Ambedkar Institute Of Technology, Bengaluru

2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited by NAAC with A Grade)



CERTIFICATE

This is to certify that the Major project work titled **“DESIGN AND DEVELOPMENT OF MOTOR CYCLE HELMET USING NATURAL FIBER”** is carried out by **JAYANTH KUMAR H K, KISHORE N, NITHIN KUMAR B S** and **SHAMIK PATIL**. Bonified students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering at **Dr. Ambedkar Institute of Technology, Bengaluru-56**. It is certified that all corrections/suggestions indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature of the Guide

Dr. Vishwanath M M
Assistant Professor
Dept. of ME, Dr. AIT

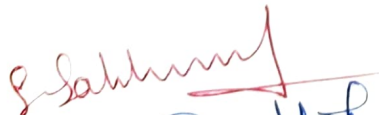


Signature of the HOD

Dr. T N Raju
Head of Department
Dept. of ME, Dr. AIT
Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology
Bengaluru - 560 086.



Signature of the Principal

Dr. Meenakshi M
Principal
Dr. AIT



18.07.2022

MAJOR PROJECT REPORT ON

“CFD ANALYSIS OF AUTOMOTIVE RADIATOR FOR
ENHANCED HEAT TRANSFER USING NANO FLUIDS”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnanasangama”, Belagavi-590018

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU



DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Mallathahalli, Bengaluru-560056
2021 - 2022

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

**MAHADEV REDDY
N N AMOGHA RAO
RAJAT S NAVARATHNA
ROHITH KUMAR K N**

**1DA18ME057
1DA18ME066
1DA18ME091
1DA18ME101**

Under the guidance of:

Mr. BYREGOWDA K C

Assistant Professor

Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)

BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru - 560056



Department of Mechanical Engineering

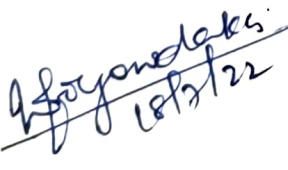

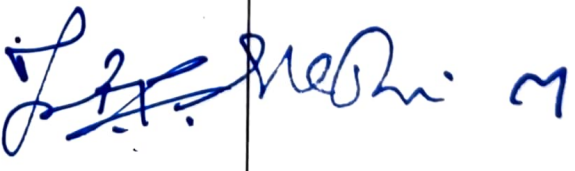
CERTIFICATE

Certified that the Major Project work (Eighth Semester) entitled “**CFD ANALYSIS OF AUTOMOTIVE RADIATOR FOR ENHANCED HEAT TRANSFER USING NANO FLUIDS**” is carried out by the following Bonafide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B. E (Mechanical) at Dr. Ambedkar Institute of Technology, Bengaluru, during the academic year 2021-2022.

SL NO	USN	NAME
1	1DA18ME057	MAHADEV REDDY
2	1DA18ME066	N N AMOGHA RAO
3	1DA18ME091	RAJAT S NAVARATHNA
4	1DA18ME101	ROHITH KUMAR K N

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report. The project report has been approved satisfying the academic requirements prescribed

for the said Degree.

			
Mr. BYREGOWDA K C		Dr. T N RAJU	Dr. Meenakshi
PROJECT GUIDE	EXAMINER	HOD, Dept of ME	PRINCIPAL, Dr AIT

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI-590018



Project Report

on

“DESIGN OPTIMISATION AND FABRICATION OF MONO WHEEL BIKE”

Submitted in partial fulfilment for the award of degree in

BACHELOR OF ENGINEERING

IN

“MECHANICAL ENGINEERING”

Submitted by :

C V K SAI JAGADISH (1DA15ME021)	
CHIRANJEEVI R B (1DA15ME026)	
MANOJ S (1DA18ME064)	
NAGESH (1DA18ME068)	

Under the Guidance of :

S K JAGADEESH

Associate Professor

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

Outer Ring Road Mallathahalli, Near Jnana Bharathi Campus, Bengaluru-560056

(An Autonomous Institution Aided by Government)



DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
Outer Ring Road Mallathahalli, Near Jnana Bharathi Campus, Bengaluru-560056
(An autonomous Institution Aided by Government)



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the project work entitled "DESIGN OPTIMISATION AND FABRICATION OF MONO WHEEL BIKE" carried out by C V K SAI JAGADISH (1DA15ME021) CHIRANJEEVI R B (1DA15ME026) MANOJ S (1DA18ME064) NAGESH (1DA18ME068), who are bonafide students of this institution have submitted in partial fulfillment for the award of degree of Bachelor of Engineering in Mechanical Engineering of **Visvesvaraya Technological University, Belagavi** during the academic year 2021-2022.

Signature of the Guide

S K JAGADEESH

Signature of HOD

Dr. T N RAJU

Signature of Principal

Dr. M MEENAKSHI

Name of the Examiners

1. Dr. SATISH S
2. Dr. U S Mallikarjun

Signature with Date

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,
[An Autonomous Institution, Affiliated to VTU, Belgaum and Aided by Government of Karnataka]
Near Jnana Bharathi Campus, Mallathalli, Bangalore-560056



Aided By Govt. of Karnataka

REPORT OF
MAJOR PROJECT WORK
ON
“IMPACT ANALYSIS OF FIBRE REINFORCED
POLYESTER COMPOSITES”

Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

SUBMITTED BY

AKSHAY R HEGDE

1DA18ME008

AKSHAYAKUMAR VAIDYA

1DA18ME009

BALAJIGOWDA H S

1DA18ME016

INDRESH SHRINIVAS KATTI

1DA18ME046

Under the guidance of
Mr. RAJESH CHANDRA C.,
Assistant Professor,


Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology, Bangalore.


Dr. Ambedkar Institute of Technology
B.D.A, Outer Ring Road, Mallathahally, Bangalore-560056
DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled “Impact Analysis of Fiber Reinforced Polyester Composites” is a bonafide work carried out by Akshay R Hegde bearing USN: 1DA18ME008, Akshayakumar Vaidya bearing USN: 1DA18ME009, Balajigowda H S bearing USN: 1DA18ME016, Indresh Shrinivas Katti bearing USN: 1DA18ME046 in partial fulfillment of the requirements for the award of the degree of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belgaum during the academic year 2021-2022. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for Bachelor of Engineering.


Mr. RAJESHCHANDRA C.,
Assistant Professor, Dept. of ME
Dr. AIT, Bangalore-560056


Dr T.N. RAJU
HOD, Dept. of ME
Dr.AIT, Bangalore-560056


Dr. M.M MEENAKSHI
Principal

Dr. Ambedkar Institute of Technology, Bangalore – 560056

EXTERNAL VIVA VOCE

Name of the Examiners

Signature with date

1. Dr. Satish S



2. Dr. U S Mallikarjun


18/07/22

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056
(An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



PROJECT REPORT

On

"EXPERIMENTAL STUDIES ON JET IMPINGEMENT COOLING OF A HEAT SINK"

A Dissertation submitted to Visvesvaraya Technological University, Belgaum.

In the partial fulfilment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING

in

MECHANICAL ENGINEERING

Submitted By:

KIRAN	1DA18ME052
MALLIKARJUN	1DA18ME060
NISHANTH	1DA18ME072
RAVIKANT R PATIL	1DA18ME098

Under The Guidance Of

SHARATH KUMAR S N

Assistant Professor

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute of Technology, Bangalore

2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi)



CERTIFICATE

This is to certify that the project work titled **“EXPERIMENTAL STUDIES ON JET IMPINGEMENT COOLING OF A HEAT SINK”** is carried out by KIRAN, MALLIKARJUN, NISHANTH, RAVIKANT R PATIL. Bonafide students of **Dr. Ambedkar Institute of Technology** Bangalore. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide

Signature of the HOD

Signature of the Principal

28/07/22

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056

(An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



PROJECT REPORT

On

“EXPERIMENTAL INVESTIGATION ON MICRO CHANNEL HEAT EXCHANGER USING Al_2O_3 AND SiO_2 NANO FLUIDS”

A Dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfilment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING
in
MECHANICAL ENGINEERING

Submitted By:

KRISHNA POL

1DA18ME054

NANDITHA R

1DA18ME069

RESHMA N

1DA18ME100

VINUTHA K V

1DA18ME138

Under The Guidance Of

BYREGOWDA K C

Assistant Professor

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute of Technology, Bangalore

2022

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056
(An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work (Eight Semester) "EXPERIMENTAL INVESTIGATION ON MICRO CHANNEL HEAT EXCHANGER USING Al_2O_3 AND SiO_2 NANO FLUIDS" is carried out by the following bonafide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B.E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-2022.

KRISHNA POL

1DA18ME054

NANDITHA R

1DA18ME069

RESHMA N

1DA18ME100

VINUTHA K V

1DA18ME138

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

[Signature]
12/07/2022
Guide

[Signature]
HOD

[Signature]
Principal

Sl. No	Name of the examiner	Signature with date
1	<i>[Signature]</i>	<i>[Signature]</i>
2	Dr. U.S. Malibarijan	<i>[Signature]</i> 12/07/22

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056
(An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



Aided By Govt. of Karnataka

PROJECT REPORT

On

"JOINING OF ALUMINIUM 6061 AND MILD STEEL BY USING SURFACING AND FRICTION STIR WELDING"

A Dissertation submitted to Visvesvaraya Technological University, Belgaum.

In the partial fulfilment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING

in

MECHANICAL ENGINEERING

Submitted By:

KADAPPANAVARA HANUMANTHA	1DA18ME050
PAVAN P	1DA18ME078
RACHAPPAA	1DA18ME088
RAKESH GOUNDI	1DA18ME095

Under The Guidance Of

Dr. MAHADEVA SWAMY M

Assistant Professor

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute of Technology, Bangalore

2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi)



CERTIFICATE

This is to certify that the project work titled “**JIONING OF ALUMINIUM 6061 AND MILD STEEL BY USING SURFACING AND FRICTION STIRR WELDING**” is carried out by K HANUMANTHA, PAVAN P, RACHAPPA, RAKESH GOUNDI. Bonafide students of **Dr. Ambedkar Institute of Technology** Bangalore. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide

Signature of the HOD

Signature of the Principal

3 Sathumf 18/2
- 18/07/22

Report On
“CFD ANALYSIS OF PIN FIN HEAT SINK WITH
A SINGLE AND MULTI JET IMPINGEMENT
CONDITION”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnanasangama”, Belgaum-590018
SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE OF
BACHELOR OF ENGINEERING

IN
MECHANICAL ENGINEERING

Submitted By

ABHILASH K A

1DA18ME002

JAGAN SIMHA

1DA18ME047

NAGARAJ L

1DA18ME067

SHASHANK GOWDA P K

1DA18ME113

Under The Guidance Of
SHARATH KUMAR S N
Assistant Professor, Department of Mechanical Engineering
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALORE

DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Mallathahalli, Bangalore-
5600562021-2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru - 560056



Department of Mechanical Engineering

CERTIFICATE

Certified that the project work - Phase I (Seventh Semester) entitled "CFD ANALYSIS OF PIN FIN HEAT SINK WITH A SINGLE AND MULTI JET IMPINGEMENT CONDITION" is carried out by the following bonafide students of Mechanical Engineering in partial Fulfilment for the award of Bachelor of Engineering, B.E (Mechanical) at **Dr. Ambedkar Institute of Technology, Bangalore**, During the academic year 2021-2022.

Sl. No	Name of Student	U S N
1	ABHILASH K A	1DA18ME002
2	JAGAN SIMHA	1DA18ME047
3	NAGARAJ L	1DA18ME067
4	SHASHANK GOWDA P K	1DA18ME113

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

Guide	HOD Department of Mechanical Engineering Dr. Ambedkar Institute of Technology Bengaluru - 560 056.	Principal

External Viva:

Sl. No	Name of the examiner	Signature with date
1	Dr. B G Shetty	18.07.2022
2	Dr. N.V.N. Joadhya RVEE	18.7.22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(Near Jnana Bharathi Campus, Mallathahally, Bengaluru- 560056)

(An autonomous Institute Affiliated to Visvesvaraya Technological University,
Belagavi and Aided by Government of Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING



PROJECT WORK PHASE II REPORT ON

“The Effect of Machining Environment on Turning Performance of Austempered Ductile Iron”

Submitted in partial fulfilment for the award of the degree.

Submitted By

UMESH

1DA16ME115

MANOJ KUMAR JANGID

1DA17ME084

PRABHU

1DA17ME105

VISHAL PATIL

1DA17ME161

Under the Guidance of

CHANDRASHEKAR M

Associate Professor

**DEPARTMENT OF MECHANICAL ENGINEERING,
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,
BENGALURU- 560056**

2021-2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous Institute Affiliated to Visvesvaraya Technological University,
Belagavi and Aided by Government of Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project entitled "THE EFFECT OF MACHINING ENVIRONMENT ON TURNING PERFORMANCE OF DUCTILE IRON" is carried out by UMESH (1DA16ME115), MANOJ KUMAR JANGID (1DA17ME084), PRABHU (1DA17ME105) and VISHAL PATIL (1DA17ME161), bonafide student of Dr Ambedkar Institute of Technology, Bangaluru-56, under the guidance during the academic year 2021-22 and is in partial fulfilment for the award of the Degree of Bachelor Engineering in Mechanical Engineering. It is to certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in the report deposited in the department. It is further certified that this work has not been submitted to any university/organization for the award of any degree or diploma or certificate including a similar degree. The project report has been approved as it satisfied the academic requirements prescribed by the institute for the Bachelor of Engineering Degree.

Signature of the Guide

(CHANDRASHEKAR .M)

Signature of HOD

(T.N. RAJU)

Signature of Principal

(Dr. M. MEENAKSHI)

Name of the Examiners

1) Dr. B.G. Shetye

2) Dr. N.V.N. Anandhya

Signature with Date

13/08/2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to VTU, Belagavi, Accredited by NAAC with A' Grade)



PROJECT REPORT

On

“EFFECT OF ZIRCONIUM OXIDE NANO PARTICLES ON MICRO STRUCTURE AND WEAR BEHAVIOUR OF GLASS FIBRE REINFORCED POLYMER”

(Subject Code:18MEP81)

SUBMITTED BY:

MAHESH B R	1DA18ME058
NIRANJAN Y P	1DA18ME071
PAVAN KUMAR S D	1DA18ME077
R HEMANTH	1DA18ME087

UNDER THE GUIDANCE OF:

H S MANJUNATH

Assistant Professor, Dept.of ME,Dr.AIT



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JULY-2022

ACADEMIC YEAR 2021-2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

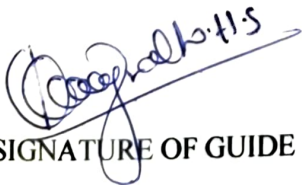
(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi , Accredited by NAAC with A Grade)



Aided By Govt of Karnataka

CERTIFICATE

This is to certify that the Major project work titled “EFFECT OF ZIRCONIUM OXIDE NANO PARTICLES ON MICRO STRUCTURE AND WEAR BEHAVIOR OF GLASS FIBRE REINFORCED POLYMER” is carried out by MAHESH B R, NIRANJAN Y P, PAVAN KUMAR S D and R HEMANTH, bonified students of Dr.Ambedkar Institute of Technology, Bengaluru-560056. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


SIGNATURE OF GUIDE

H S MANJUNATH
Assistant professor


SIGNATURE OF HOD

Dr. T N RAJU
Associate Professor & HOD


SIGNATURE OF PRINCIPAL

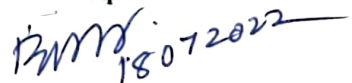
Dr. M MEENAKSHI
Principal

EXAMINER : 1

Dr B G shetty

EXAMINER : 2

Dr. V. V. N. Jondhye


18/07/2022


ORVICE
18/7/22

FINAL REPORT
ON

“Synthesis and Analysis of BioDiesel using Jatropha Curcas Seeds”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE

OF

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

Akash	1DA18ME006
Ashraf	1DA18ME015
C. Prajnan	1DA18ME021
Chirag G.S	1DA18ME028

Under The Guidance Of

T. Srinath

Associate Professor, Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALORE



Aided By Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

BDA Outer ring Road, Mallathahalli, Bengalore-560056


2021 - 2022


Dr. Ambedkar Institute of Technology
B.D.A, Outer Ring Road, Mallathahally, Bangalore-560056
DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "SYNTHESIS AND ANALYSIS OF BIO-DIESEL USING JATROPHA CURCAS SEEDS" is a bonafide work carried out by **AKASH** bearing USN: 1DA18ME006, **ASHRAF** bearing USN: 1DA18ME015, **C PRAJNAN** bearing USN: 1DA18ME021, **CHIRAG G.S** bearing USN: 1DA18ME028 in partial fulfillment of the requirements for the award of the degree of **Bachelor of Engineering in Mechanical Engineering** of the **Visvesvaraya Technological University, Belgaum** during the academic year 2021-2022. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for Bachelor of Engineering.


Mr. T. SRINATH
Associate Professor, Dept. of
ME Dr. AIT, Bangalore-560056


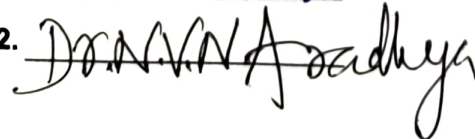

Dr. T.N. RAJU.
HOD, Dept. of ME
Dr. AIT, Bangalore-560056


Dr. M. Meenakshi
Principal

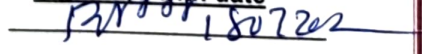
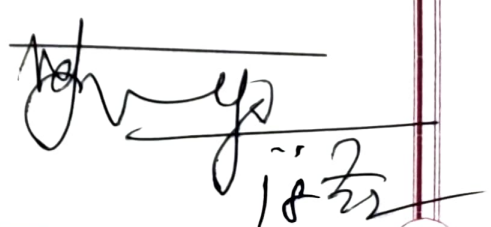
Dr. Ambedkar Institute of Technology, Bangalore – 560056

EXTERNAL VIVA VOCE

Name of the Examiners

1. 
2. 

Signature with date

MAJOR PROJECT REPORT

ON

“Experimental investigation on CRDI engine by varying injection timing and pressure with combustion characteristics”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE

OF

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

ABDUL SALAM

1DA19ME400

MALLIKARJUN BANGARER

1DA19ME412

MALLIKARJUN K BANAGONDE

1DA19ME413

MOHAMMED FAISAL

1DA19ME414

Under The Guidance Of

VINOD K. L

Assistant Professor, Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALORE



Added By Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

BDA Outer ring Road, Mallathahalli, Bengalore-560056

2021 - 2022

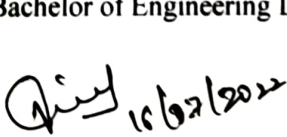
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University,
Belagavi, Accredited by NAAC with A Grade)



CERTIFICATE

This is to certify that the project work titled “EXPERIMENTAL INVESTIGATION ON CRDI ENGINE BY VARYING INJECTION TIMING AND PRESSURE WITH COMBUSTION CHARACTERISTICS” is carried out by ABDUL SALAM, MALLIKARJUN BANGARER, MALLIKARJUN K BANAGONDE, MOHAMMED FAISAL. Bonafide students of Dr. Ambedkar Institute of Technology Bangalore. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree



Signature of the Guide

KL VINOD



Signature of the HOD

Department of Mechanical Engineering
Dr. T.N. BIJU
Dr. Ambedkar Institute of Technology
Bangalore - 560 056.



Signature of the Principal

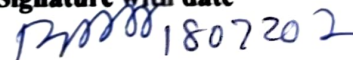
Dr. M. MEENAKSHI


Name Of The Examiners

1) Dr. BG Shetty

2) Dr. N.V.N. Anandhys

Signature with date





MAJOR PROJECT REPORT

ON

“SOLAR BASED MULTI-PURPOSE
AGRICULTURAL ROBOT”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE OF

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

AKSHITH KUMAR. K. N
BANNAPPA PATROT
BHARATH G
MADHU C

1DA18ME010
1DA18ME017
1DA18ME019
1DA18ME056

Under The Guidance Of

Dr. B GANGADHARA SHETTY
Professor, Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALORE
BDA Outer ring Road, Mallathahalli, Bengalore-560056
2021 – 2022



DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution. Affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the major project work titled “**SOLAR BASED MULTI-PURPOSE AGRICULTURAL ROBOT**” is carried out by AKSHITH KUMAR K N (1DA18ME010), BANNAPPA PATROT (1DA18ME017), BHARATH G (1DA18ME019), MADHU C (1DA18ME056) bona fide students of Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, Bengaluru-56, during the academic year 2021-22 and is partial fulfilment for the award of degree in Bachelor of Engineering. It is certified that all correction / suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university for award of any other degree or diploma or certificate including a similar degree. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

Signature of the Guide

Signature of HOD

Signature of the Principal

External viva:

1. Dr BG Shetty

2. Dr. N. V. N. Aoudhya

18/07/2022

18/7/22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,
[An Autonomous Institution, Affiliated to VTU, Belgaum and Aided by Government of Karnataka]
Near Jnana Bharathi Campus, Mallathalli, Bangalore-560056



Aided By Govt. of Karnataka

**REPORT OF
MAJOR PROJECT WORK
ON**

**“STUDIES ON PROPERTIES OF 7075 ALUMINIUM ALLOY
WITH SILICON CARBIDE SUBJECTED TO
RETROGRESSION AND REAGING”**

Submitted in partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING
SUBMITTED BY**

AMITH R S

1DA18ME011

MANOJ K

1DA18ME062

PRAJWAL P

1DA18ME082

RAKSHITH N

1DA18ME096

**Under the guidance of
Dr. Pavan Tejasvi T
Assistant Professor,**

**Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology, Bangalore.**

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution, Aided by Govt. of Karnataka, Affiliated to VTU)

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the Project work titled “Studies on Properties Of 7075 Aluminium Alloy with Silicon Carbide Subjected To Retrogression and Reaging” carried out by **Mr. Amith R S (1DA18ME011)**, **Mr. Manoj K (1DA18ME062)**, **Mr. Prajwal P (1DA18ME082)**, and **Mr. Rakshith N (1DA18ME096)**, bonified students of Dr. Ambedkar Institute of Technology, Bangalore-56, under my guidance during the academic year **2021-2022** and is in partial fulfillment for the award of **Bachelor of engineering** in the Department of **Mechanical Engineering** of the **Dr. Ambedkar Institute of Technology, Bangalore-56**. It is certified that all the corrections/suggestions indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that this work has not been submitted to any University/Organization for the award of any other degree or diploma or certificate including a similar degree. The Project report has been approved as it satisfies the academic requirements in respect to project work prescribed for the said degree.

Dr. Pavan Tejasvi T
Assistant Professor
Department of ME, Dr. AIT

Dr. TN Raju
Head of the Department of ME
Dr. AIT

Dr. M Meenakshi
Principal, Dr. AIT

External VIVA:

Sl. No.

Name of the Examiner

Signature with date

1. Dr B G Shetty

2. Dr. N. V. N. Asadhya

3.

18/07/2022

18/07/22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited
By NAAC with A Grade)



Aided By Govt. of Karnataka

PROJECT REPORT

On

“GENERATIVE DESIGN AND FABRICATION OF SWING ARM SUITABLE FOR ELECTRIC VEHICLE”

**A dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfillment of the requisites for the award of the Degree of**

BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING

Submitted By

Rajath J M	1DA18ME092
Sachin B T	1DA18ME104
Sathvik M Pate	1DA18ME110
Sharat M K	1DA18ME112

Under the guidance of
Mr. Venkatesh Reddy.

Asst, Professor ME

**Department of Mechanical Engineering
Dr. Ambedkar institute of Technology, Bangalore**

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute of Technology, Bangalore

2021-22


Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY


(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi ,Accredited by NAAC with A Grade)



CERTIFICATE

This is to certify that the Major project work titled “**GENERATIVE DESIGN AND FABRICATION OF SWING ARM SUITABLE FOR ELECTRICVEHICLE**” is carried out by **Rajath J M, Sachin B T, Sathvik M P, Sharat M K**. Bonified students of **Dr Ambedkar Institute of Technology Bengaluru-56**. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


Mr. Venkatesh Reddy
Assistant Professor, Dept. of ME
Dr. AIT, Bangalore-560056


Dr. T N RAJU
HOD, Dept. of ME
Dr. AIT, Bangalore-560056

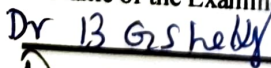
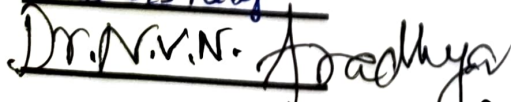

Dr. M MEENAKSHI

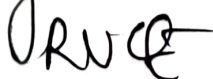
Principal

Dr. Ambedkar Institute of Technology, Bangalore – 560056



EXTERNAL VIVA VOCE

Name of the Examiners


Dr. B. G. S. Reddy

Dr. N. V. N. Pradhya


R. V. C.

Signature with date


18/07/22

18/07/22

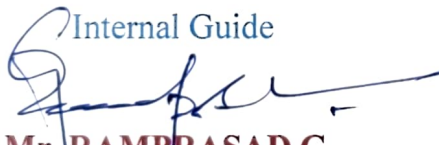
PROJECT REPORT ON
"EXTRACTION, FABRICATION AND TESTING OF NATURAL
FIBER COMPOSITES"

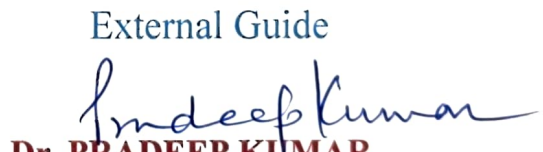


VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"Jnanasangama", Belgaum-590018
SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF
BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

PRAJWAL B M	1DA18ME081
PRAVEENKUMAR R	1DA18ME084
RAGHU V T	1DA18ME090
REDDY KUMAR V	1DA18ME099

Internal Guide

Mr. RAMPRASAD C
Assistant professor
Dept. of Mech
Dr. AIT

External Guide

Dr. PRADEEP KUMAR
KUSHWAHA
Scientist E
IPIRTI Bengaluru

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)



DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project entitled "**EXTRACTION, FABRICATION AND TESTING OF NATURAL FIBER COMPOSITES**" is carried out by **PRAJWAL B M (1DA18ME081), PRAVEENKUMAR R (1DA18ME084), RAGHU V T (1DA18ME090) and REDDY KUMAR V (1DA18ME099)**, bonafide students of Dr. Ambedkar Institute of Technology, Bengaluru-56, under my guidance during the academic year 2021-2022 and is in partial fulfillment for the award of the Degree of Bachelor of Engineering in Mechanical engineering. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in the report deposited in the department. It is further certified that this work has not been submitted to any university/organization for the award of any other degree or diploma or certificate including a similar degree. The project report has been approved as it satisfied the academic requirements prescribed by the institute for the Bachelor of Engineering Degree.

Signature of guide
(Mr. RAMPRASAD C)

Signature of HOD
(Dr. T N RAJU)

Signature of Principal
(Dr. M MEENAKSHI)

External Viva:

Name of the Examiner

[1] **Dr BGS Shetty**

[2] **Dr. N. V. N. Pradhya**
Dr. C E

Signature with date

Dr. M Meenakshi 18/07/2022

Dr. BGS Shetty
18/7/22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

An Autonomous Institute Affiliated to VTU, Belgaum and Aided by Government of Karnataka,
Near Jnana Bharathi Campus, Outer Ring Road, Mallathahalli, Bengaluru-560056



DEPARTMENT OF MECHANICAL ENGINEERING

A final year project report on

“DESIGN AND DEVELOPMENT OF PORTABLE ELECTRUM MOPED”

Submitted by

CHARAN C	1DA19ME407
KUMAR SWAMY M D	1DA19ME411
NAVEENA M R	1DA19ME416
RUDRESH B	1DA19ME421

Under the guidance of
Mr. TEJESH S
Assistant Professor
Department of Mechanical Engineering

Dr. AIT
2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

An Autonomous Institute Affiliated to VTU, Belgaum and Aided by Government of Karnataka,
Near Jnana Bharathi Campus, Outer Ring Road, Mallathahalli, Bengaluru-560056
DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project work titled **DESIGN AND DEVELOPMENT OF PORTABLE ELECTRUM MOPED** is carried out by Charan C 1DA19ME407, Kumar Swamy M D 1DA19ME411, Naveena M R 1DA19ME416 and Rudresh B 1DA19ME421 Bonafede students of Dr. Ambedkar Institute of Technology Bangalore-56. It is certified that all correction suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that his work has not been submitted to any university/organization for award of any other degree or diploma or certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.

Tejesh S
18/07/2022
Signature of the
guide

TEJESH.S

Dr. T. N. Raju
Signature of the
HOD

Dr.T. N RAJU

Dr. M. Meenakashi
Signature of the
Principal

Dr.M. MEENAKASHI

Examiners:

- Dr. G. S. Lakshmi*
18/08/22
Dr. G. S. Lakshmi
- Dr. C. S. Lakshmi*
18/07/2022
(Dr. C. S. Lakshmi)

PROJECT REPORT
ON

“EXPERIMENTAL INVESTIGATION OF MECHANICAL
CHARACTERISTICS OF EPOXY WITH RAMIE AND SILK
FIBER REINFORCED COMPOSITE”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF

BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

AMODH C NADIGAR
GURUKIRAN S N
HARSHITH KUMAR
BHASKAR N

1DA18ME012
1DA18ME037
1DA18ME043
1DA19ME404

Under The Guidance Of
Dr. M M NATARAJA

Assistant Professor, Department of Mechanical Engineering
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY



DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Malathahalli, Bengaluru-560056
2021– 2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU) BDA
Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru - 560056



Department of Mechanical Engineering

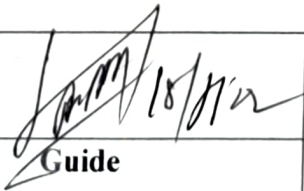
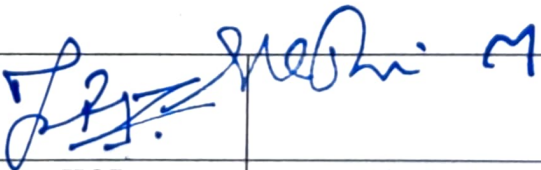
CERTIFICATE

Certified that the project work - Phase II (Eighth Semester) entitled **EXPERIMENTAL INVESTIGATION OF MECHANICAL CHARACTERISTICS OF EPOXY WITH RAMIE AND SILK FIBER REINFORCED COMPOSITE** is carried out by the following bonafide students of Mechanical Engineering in partial fulfillment for the award of Bachelor of Engineering, B. E (Mechanical) at **Dr. Ambedkar Institute of Technology, Bangalore**, during the academic year 2021-22.

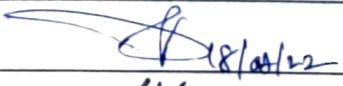
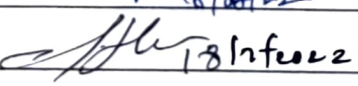
Sl. No	U S N (ascending order)	Name of Student
1	IDA18ME012	AMODH C NADIGAR
2	IDA18ME037	GURUKIRAN S N
3	IDA18ME043	HARSHITH KUMAR
4	IDA19ME404	BHASKAR N

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

		
Guide	HOD	Principal

External Viva:

Sl. No	Name of the examiner	Signature with date
1	Dr. Gangaiah N.	
2	Dr. C. Shashidhar	

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited by NAAC with A Grade)



PROJECT REPORT

On

"DESIGN AND PERFORMANCE ANALYSIS OF TANKLESS SOLAR WATER HEATER FOR DOMESTIC APPLICATION "

**A dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfillment of the requisites for the award of the Degree**

BACHELOR OF ENGINEERING

In

MECHANICAL ENGINEERING

Submitted By

ADITYA

1DA18ME004

CHANDRASHEKAR

1DA18ME023

PRAJWAL

1DA18ME080

VINAY H.M

1DA18ME135

Under the guidance of

DODDANNA K

Asst, Professor Department of

Mechanical Engineering

Dr. Ambedkar institute of Technology, Bangalore

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited
by NAAC with A Grade)



CERTIFICATE


This is to certify that the project work titled “**DESIGN AND PERFORMANCE ANALYSIS OF TANKLESS SOLAR WATER HEATER FOR DOMESTIC APPLICATION**” is carried out **ADITYA, CHANDRASHEKAR, PRAJWAL, VINAY H.M.** Bonafide students of **Dr. Ambedkar Institute of Technology** Bangalore. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature of the Guide


Signature of the HOD


Signature of the Principal

1)  18/02/22 Dr. Ganjalkar N.

2)  19/02/2022
Dr. C. Shashidhar

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

An Autonomous Institute Affiliated to Visvesvaraya Technological University, Belagavi,
Near Jnana Bharathi Campus, Bengaluru – 560056



DEPARTMENT OF MECHANICAL ENGINEERING

Major project Report

On

“EVALUATION OF CORROSION AND MECHANICAL PROPERTIES OF $AlTiB_2$ COMPOSITES PRODUCED BY STIR CASTING METHOD”

Submitted in partial fulfillment of the requirement for the award of the degree of

BACHELOR OF ENGINEERING

In

MECHANICAL ENGINEERING

Batch No. 22

Submitted By

**CHARAN R N
NAVEENA K S
NAVEENA V
SANDEEPA GOUDA**

**1DA19ME408
1DA19ME415
1DA19ME417
1DA19ME423**

Under The Guidance Of
AMITHKUMAR S N

Assistant Professor, Department of Mechanical Engineering
Dr. AIT Bangalore – 560056



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnanasangama, Belagavi, Karnataka 590018

2021 - 2022

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

BANGALORE – 560056

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled “Evaluation of Corrosion and Mechanical Properties of AlTiB₂ Composites Produced by Stir Casting Method” is a bonafide work carried out by

CHARAN R N
NAVEENA K S
NAVEENA V
SANDEEPA GOUDA

1DA19ME408
1DA19ME415
1DA19ME417
1DA19ME423

In partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2021-22**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

SIGNATURE OF THE GUIDE
AMITHKUMAR S N
Assistant Professor
Dept. of Mechanical Engg.

SIGNATURE OF THE HOD
Dr. T. N. RAJU
Professor and Head
Dept. of Mechanical Engg.

SIGNATURE OF THE PRINCIPLE
DR. M. MEENAKSHI

Signatures of the Examiners:

Examiner 1: Dr. G. Jagadekan,

Examiner 2:
(Dr. C. S. Lakshmi)

FINAL REPORT

ON

“DESIGN AND DEVELOPMENT OF ROBOTIC ARM USING
STRAIN WAVE GEAR MECHANISM”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Inanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

DHANUSHGOWDA K S
KSHITIJ KULKARNI
NITHISH MITHRA J
RAGHAVENDRA S

1DA19ME409
1DA19ME410
1DA19ME418
1DA19ME419

Under the Guidance Of

Dr T.N. RAJU
Head of Department
Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALORE



Approved by Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

BDA Outer ring Road, Mallathahalli, Bangalore-560056

2021 – 2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)

BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru – 560056




DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled “**DESIGN AND DEVELOPMENT OF ROBOTIC ARM USING STRAIN WAVE GEAR MECHANISM**” carried out by **DHANUSH GOWDA KS, KSHITIJ KULKARNI, RAGHAVENDRA S, NITHISH MITHRA J BEARING USN 1DA19ME409, 1DA19ME410, 1DA19ME418, 1DA19ME419**, bonafide students of Dr Ambedkar Institute of Technology, Bengaluru, in partial fulfilment for the award of Bachelor of Engineering / Bachelor of Technology in **MECHANICAL ENGINEERING** of the Visveswaraiah Technological University, Belgaum during the year 2021-2022. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.

The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.


Signature of the guide

Dr T.N. Raju

(HOD Mechanical Dept)


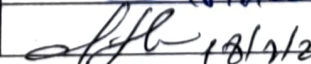

Signature of HOD

Dr T.N. Raju


Signature of the Principal

Dr Meenakshi

External viva: -

SL.NO	Name of the examiner	Signature with date
01	Dr. Gangadhar N.	 18/12/22
02	Dr. C. Shashishankar	 18/12/22

MAJOR PROJECT REPORT
ON

**“FABRICATION OF SOLAR WATER HEATER FOR POWER
GENERATION”**



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF

BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

**MALAGOUD PATIL
PAVAN R
RAJESH K**

**1DA18ME059
1DA18ME079
1DA18ME094**

Under The Guidance Of

Dr. K M Purushothama

Professor, Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology



**DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Malathahalli, Bengaluru-560056
2021– 2022**

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)
BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru - 560056



Department of Mechanical Engineering

CERTIFICATE

Certified that the project work final report (Eighth Semester) entitled “**FABRICATION OF SOLAR WATER HEATER FOR POWER GENERATION**” is carried out by the following bonafide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B. E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-22.

SL No	U S N	Name of Student
1	1DA18ME059	MALAGOUD PATIL
2	1DA18ME079	PAVAN R
3	1DA18ME094	RAJESH K


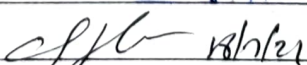
It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

		
Guide	HOD	Principal

Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bengaluru - 560 056.

External Viva:

Sl. No	Name of the examiner	Signature with date
1	Dr. Gangadhar N.	 18/12/21
2	Dr. C. S. Lakshminaras	 18/12/21

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,
[An Autonomous Institution, Affiliated to VTU, Belgaum and Aided by Government of Karnataka]
Near Jnana Bharathi Campus, Mallathalli, Bangalore-560056



Aided By Govt. of Karnataka

**REPORT OF
MAJOR PROJECT WORK
ON
“Study on the Mechanical and Physical Properties of
NaOH Treated Basalt/Kevlar Epoxy Hybrid Composites”**

Submitted in partial fulfilment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING
SUBMITTED BY**

PAVAN J

SALIL S DESHPANDE

SANJAY H P

SANJITH P S

1DA18ME076

1DA18ME105

1DA18ME106

1DA18ME108


Under the guidance of
Dr. R. Bhanupratap.,
Assistant Professor,
Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology, Bangalore.


Dr. Ambedkar Institute of Technology
B.D.A, Outer Ring Road, Mallathahally, Bangalore-560056
DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled “Study on the Mechanical and Physical Properties of NaOH Treated Basalt/Kevlar Epoxy Hybrid Composites” is a bonafide work carried out by PAVAN J bearing USN: 1DA18ME076, SALIL S DESHPANDE bearing USN: 1DA18ME105, S A N J A Y H P bearing USN: 1DA18ME106, SANJITH P S bearing USN:1DA18ME108 in partial fulfillment of the requirements for the award of the degree of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belgaum during the academic year 2021-2022. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for Bachelor of Engineering.


Dr. R. BHANUPRATAP, 18-7-22
Assistant Professor, Dept. of ME
Dr. AIT, Bangalore-560056


Dr T.N. RAJU
HOD, Dept. of ME
Dr. AIT, Bangalore-560056


Dr. M.M MEENAKSHI
Principal
Dr. Ambedkar Institute of Technology, Bangalore – 560056

EXTERNAL VIVA VOCE

Name of the Examiners

Signature with date

1. Dr. Gangadhar N.

 18/8/22

2. Dr. C. Shashishekar

 18/8/22

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056 (An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



PROJECT REPORT

On

“IMPACT OF REPETITIVE CORRUGATION AND STRAIGHTENING ON MICROSTRUCTURE, MECHANICAL PROPERTIES OF STAINLESS-STEEL GRADE 304”

**A Dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfilment of the requisites for the award of the Degree of**

BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING

Submitted By:

SAGAR.B	1DA19ME422
SUDHINDRA.KS	1DA19ME427
SYED ANWAAR ASHRAFF	1DA19ME428
VIMALA.S	1DA19ME430

Under The Guidance Of

Dr. BHANUPRATAP R B.E., MTech., Ph.D.
Assistant Professor

**DEPARTMENT OF MECHANICAL ENGINEERING
Dr. Ambedkar Institute of Technology, Bangalore
2022**

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056
(An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



DEPARTMENT OF MECHANICAL ENGINEERING


CERTIFICATE


Certified that the project work entitled “Impact of Repetative Corrugation and Straightening on Microstructure, Mechanical Properties of Stainless Steel grade 304” is carried out by the following bonifide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B.E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-2022.


Sl. No	Name of students	USN
1	SAGAR.B	1DA19ME422
2	SUDHINDRA.KS	1DA19ME427
3	SYED ANWAAR ASHRAFF	1DA19ME428
4	VIMALA S	1DA19ME430

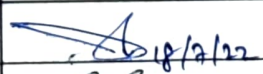

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.


Guide
18.7.22


HOD


Principal

Sl. No	Name of the examiner	Signature with date
1	Dr. Gangedhar N.	 18/7/22
2	Dr. C. Shashisankar	 18/7/22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

An Autonomous Institute Affiliated to Visvesvaraya Technological University, Belagavi,
Near Jnana Bharathi Campus, Bengaluru – 560056



DEPARTMENT OF MECHANICAL ENGINEERING

Report

On

**“EFFECT OF COLD ROLLING ON MICROSTRUCTURE OF ALUMINIUM
COMPOSITES AND STUDY OF ITS MECHANICAL PROPERTIES”**

Submitted in partial fulfillment of the requirement for the award of the degree of

BACHELOR OF ENGINEERING

In

MECHANICAL ENGINEERING

Batch No. 27

Submitted By

**HARSHITHA V
SIDDARTH
SUHAS A
TEJAS B H**

**1DA17ME056
1DA18ME118
1DA18ME122
1DA18ME130**

Under The Guidance Of

Mr. CHANDAN R

Assistant Professor, Department of Mechanical Engineering
Dr. AIT Bangalore – 560056



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnanasangama, Belagavi, Karnataka 590018

2021 - 2022

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

BANGALORE – 560056

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project work entitled “Effect of cold rolling on microstructure of aluminium composites and study of its mechanical properties” is a bonafide work carried out by

HARSHITHA V

1DA17ME056

SIDDARTH

1DA18ME118

SUHAS A

1DA18ME122

TEJAS B H

1DA18ME130

In partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2021-22**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

SIGNATURE OF THE GUIDE

Mr. CHANDAN R

Assistant Professor

Dept. of Mechanical Engg.

Dr. AIT, Bengaluru-56

SIGNATURE OF THE HOD

Dr. T.N. RAJU

Professor and Head

Department of Mechanical Engineering

Dept. of Mechanical Engg.

Dr. Ambedkar Institute of Technology

Dr. AIT, Bengaluru-56

Bangaluru - 560 056.

SIGNATURE OF THE PRINCIPAL

Dr. M. MEENAKSHI

Principal

Dr. AIT, Bengaluru-56

Signatures of the Examiners:

Examiner 1: **Dr. Gajendhar N.**

Examiner 2: **Dr. Chandan R.**

FINAL REPORT
ON
“SYNTHESIS AND CHARACTERIZATION OF GLASS FIBER
AND CARBON NANOTUBE REINFORCED HYBRID
COMPOSITE”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnanasangama”, Belgaum-590018
SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE

OF
BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

SHASHANK A
VINAY KUMAR M G
YOGESH N
YUVARAJACHARI A

1DA19ME425
1DA19ME431
1DA19ME434
1DA19ME435

Under the Guidance Of

Dr. MOHAN KUMAR B
Assistant Professor,
Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALORE



Aided By Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Mallathahalli, Bengaluru-560056
2021 – 2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)

BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru – 560056



Department of Mechanical Engineering

CERTIFICATE


Certified that the project work entitled **Synthesis and Characterization of Glass fibre and Carbon Nanotubes Reinforced Hybrid Composite** is carried out by below bonafide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B.E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-22.

USN	NAME OF STUDENTS
IDA19ME425	SHASHANK A
IDA19ME431	VINAY KUMAR M G
IDA19ME434	YOGESH N
IDA19ME435	YUVARAJACHARI A

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

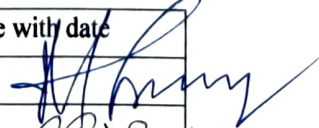

The project report has been approved satisfying the academic requirements prescribed for the said Degree.


GUIDE 18/07/22


HOD


PRINCIPAL

External viva: -

SL.NO	Name of the examiner	Signature with date
1	Dr. Maheshwar Sastry M	
2	Dr. G. Mahendran	

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution, Affiliated to VTU, Belgaum and
Aided by Government of Karnataka)

Near Jnana Bharathi Campus, Bangalore-560056



Department of Mechanical Engineering

PROJECT REPORT ON

“STUDY OF FLOW PATTERN OVER A HEAT SINK USING SMOKE GENERATOR”

(Subject code: 18MEP81)

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

2021-2022

SUBMITTED BY

Mohammed Sumair [USN: 1DA18ME065]
Nikhil Suryan [USN: 1DA18ME070]
Sufiyan Ahmed S [USN: 1DA18ME121]
Sukesh [USN: 1DA18ME124]

UNDER THE GUIDANCE OF:

Dr. Sathish S
Assistant Professor
Dept of ME, Dr. AIT

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution. Affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution. Affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



Aided By Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the mini project work titled is carried out by **MOHAMMED SUMAIR (1DA18ME065)**, **NIKHIL SURYAN (1DA18ME070)**, **SUFIYAN AHMED S (1DA18ME121)**, **SUKESH (1DA18ME124)** bonafide students of Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, Bengaluru-56, during the academic year 2021-22 and is partial fulfilment for the award of degree in Bachelor of Engineering. It is certified that all correction / suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university for award of any other degree or diploma or certificate including a similar degree. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

Signature of the Guide

Dr. Sathish S

Asst Prof, Dept of ME
Dr. AIT

Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bengaluru - 560 086

Dr. P N RAJU
Professor and Head
Dept of ME, Dr. AIT

Signature of Principal

Dr. M Meenakshi

Principal
Dr. AIT

EXAMINER:

- 1.
- 2.

MAJOR PROJECT REPORT
ON

“DESIGN AND FABRICATION OF ADVANCED MULTI
PURPOSE AGRICULTURAL VEHICLE”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF
BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

CHANDAN P KESTHUR
CHETHAN KUMAR N R
CHETHAN S BASHETTY
GANGADHAR GOWDA M C

1DA18ME022
1DA18ME026
1DA18ME027
1DA18ME034

Under The Guidance Of
JAYANTH H
Assistant Professor, Department of Mechanical Engineering
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY



DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Malathahalli, Bengaluru-560056
2021- 2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)
BDA Outer Ring Road, Near Inana Bharathi Campus, Bengaluru - 560056



Department of Mechanical Engineering

CERTIFICATE

Certified that the Major project work - Phase II (Eighth Semester) entitled **Design And Fabrication of Advanced Multi Purpose Agricultural Vehicle** is carried out by the following bonafide students of Mechanical Engineering in partial fulfillment for the award of Bachelor of Engineering, B. E (Mechanical) at **Dr. Ambedkar Institute of Technology, Bangalore**, during the academic year 2021-22.

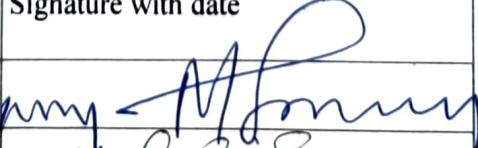

Sl. No	U S N (ascending order)	Name of Student
1	IDA18ME022	CHANDAN P KESTHUR
2	IDA18ME026	CHETHAN KUMAR N R
3	IDA18ME027	CHETHAN S BASHETTY
4	IDA18ME034	GANGADHAR GOWDA M C

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

 16/02/2022		
Guide	HOD	Principal

External Viva:

Sl. No	Name of the examiner	Signature with date
1	Dr. Maheshwari Srinivas	
2	Dr G Mahendramani	

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute Affiliated to VTU, Belagavi, Accredited by NAAC, UGC with 'A' Grade) Near

Jnana Bharathi Campus, Bengaluru -560056



Aided By Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING

(Accredited by NBA)

Project work Phase – II Report

On

“THE INFLUENCE OF COMPOSITION AND AUSTEMPERING TEMPERATURE ON MACHINABILITY (MILLING) OF AUSTEMPERED DUCTILE IRON”

(Subject Code: 18MEP81)

Submitted by

SHIVAKUMAR P K	1DA18ME114
SHREYASRAJU R K	1DA18ME116
SUNIL N S	1DA18ME127
VARSHITHA S	1DA18ME133

SEMESTER: 8

UNDER THE GUIDENCE OF

SRINUVASU N

Assistant Professor,

Dept. of ME, Dr. AIT



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JULY-2022

ACADEMIC YEAR 2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU) BDA

Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru – 560056



Department of Mechanical Engineering

CERTIFICATE

Certified that the project work - Phase II (Eighth Semester) entitled “The influence of composition and austempering temperature on machinability (milling) of austempered ductile iron” is carried out by the following bonafide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B. E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-2022.

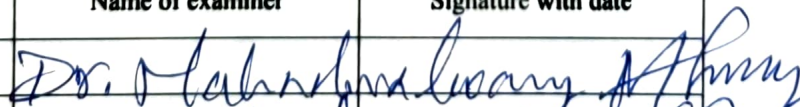
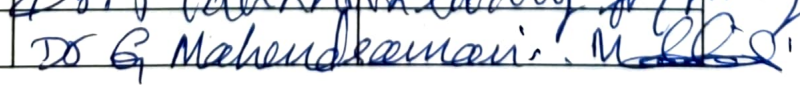
Sl. No	U S N	Name of Student
1	1DA18ME114	SHIVAKUMAR P K
2	1DA18ME116	SHREYASRAJU R K
3	1DA18ME127	SUNIL N S
4	1DA18ME133	VARSHITHA S

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

		
Guide	HOD	Principal

External viva:

SI No.	Name of examiner	Signature with date
1.	Dr. Mahendrakumar Ahmud	
2.	Dr G Mahendrakumar	

PHASE II REPORT
ON

“DESIGN AND FABRICATION OF SOLID WASTE
COLLECTING ROBOT IN WATERBODIES USING IOT”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnanasangama”, Belgaum-590018
SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE

of

BACHELOR OF ENGINEERING

in

MECHANICAL ENGINEERING

Submitted by

THULASI RAM T R

SYED ATEEQUE MOINUDDIN QUADRI

VISHAL

VISHWANATH ABHISHEK M

1DA18ME132

1DA18ME129

1DA18ME139

1DA18ME140

Under the guidance of

Dr. A S PRASHANTH

Assistant Professor,

Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU



Added by Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

BDA Outer ring Road, Mallathahalli, Bengaluru-560056

2021 – 2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

B.D.A, Outer Ring Road, Mallathahalli, Bangalore-560056

DEPARTMENT OF MECHANICAL ENGINEERING



Certificate

This is to certify that the project work entitled “**DESIGN AND FABRICATION OF SOLID WASTE COLLECTING ROBOT IN WATERBODIES USING IoT**” is a Bonafede work carried out by

THULASI RAM T R

SYED ATEEQUE MOINUDDIN QUADRI

VISHAL

VISHWANATH ABHISHEK M

1DA18ME132

1DA18ME129

1DA18ME139

1DA18ME140

In partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2021-22**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Dr. A S PRASHANTH

Assistant Professor, Dept. of ME

Dr. AIT, Bengaluru - 560056

Dr. T N RAJU

HOD, Dept. of ME

Dr. AIT, Bengaluru – 560056

Dr. M MEENAKSHI

Principal

Dr. AIT, Bengaluru - 560056

EXTERNAL VIVA VOICE

Name of the Examiner

Signature with date

1. Dr. Mahadevan Ganey

[Signature]

2. Dr. Mahendramoni

[Signature]

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute Affiliated to VTU, Belagavi, Accredited by NAAC, UGC with 'A' Grade)

Near Jnana Bharathi Campus, Bengaluru -560056



DEPARTMENT OF MECHANICAL ENGINEERING

(Accredited by NBA)

Project work Phase-II Report

On

“THE INFLUENCE OF AUSTEMPERING CONDITIONS ON THE MACHINABILITY (TURNING) OF A CARBIDIC AUSTEMPERED DUCTILE IRON”

(Subject Code: 18MEP81)

Submitted by

MANOJ.M	1DA18ME063
VIGNESH PRABHU.S	1DA18ME103
SURYA.K	1DA18ME128
YOGESH.N	1DA18ME145

SEMESTER: 8

UNDER THE GUIDENCE OF

SRINUVASU N

Assistant Professor, Dept. of ME, Dr.AIT



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JULY-2022

ACADEMIC YEAR 2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)

BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru – 560056



Department of Mechanical Engineering

CERTIFICATE

Certified that the project work - Phase II (Eighth Semester) entitled 'The influence of Austempering conditions on the machinability (turning) of a Carbide Austempered Ductile Iron' is carried out by the following bonafide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B. E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-2022.

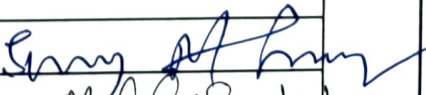

Sl. No	U S N	Name of Student
1	1DA18ME063	MANOJ.M
2	1DA18ME103	VIGNESH PRABHU.S
3	1DA18ME128	SURYA. K
4	1DA18ME145	YOGESH. N

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

		
Guide	HOD	Principal

External viva:

SI No.	Name of examiner	Signature with date
1	Dr. Mahendra Sury	
2	Dr. G. Mahendraswari	 18/07/22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited by NAAC

with A Grade)



PROJECT REPORT

On

“STUDY ON QUASI STATIC PROPERTIES OF BASALT/KEVLAR EPOXY HYBRID COMPOSITES”

A dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfillment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING

Submitted By

VINAYAKA DESHPANDE	1DA18ME137
VIVEK G S	1DA18ME141
YASHRAJ B GOUDAR	1DA18ME142
YASHWANTH E V	1DA18ME143

Under the guidance of

N SHASHIKANTH

Asst, Professor

Department of Mechanical Engineering

Dr. Ambedkar institute of Technology, Bangalore

DEPARTMENT OF MECHANICAL ENGINEERING
Dr. Ambedkar Institute Of Technology, Bangalore
2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
Mallathahalli, Bengaluru - 560056

Department of Mechanical Engineering




Certificate

Certified that the project work entitled “STUDY ON QUASI STATIC PROPERTIES OF BASALT/KEVLAR EPOXY HYBRID COMPOSITES”, carried out by VINAYAKA DESHPANDE, bearing USN: 1DA18ME137, VIVEK G S, bearing USN:1DA18ME141, YASHRAJ B GOUDAR bearing USN: 1DA18ME142, YASHWANTH E V, bearing USN: 1DA18ME143, bonafide students of Dr. Ambedkar Institute of Technology, Bengaluru – 560056 in partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belagavi during the year 2021–2022. It is certified that all the corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements.


Signature of the guide
N SHASHIKANTH


Signature of the HOD
Dr. T.N. RAJU


Signature of the Principal
Dr. Meenakshi M.

External Viva

Name of the Examiners

1. 

2. 

Signature with Date



PROJECT WORK REPORT

ON

“DESIGN AND FABRICATION OF DRY LAND
AGRICULTURAL CULTIVATOR”



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnanasangama”, Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF

DEGREE OF

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

**SHIVASHANKAR T C
SUMANTH
SUMANTH K N
VEERESH R**

**1DA18ME115
1DA18ME125
1DA18ME126
1DA18ME134**

Under The Guidance Of

Mrs. PREETHI K

Assistant professor

Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE



Approved by Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

BDA Outer ring Road, Mallathahalli, Bangalore-560056

2021– 2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)

BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru - 560056



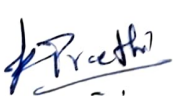


Department of Mechanical Engineering

CERTIFICATE

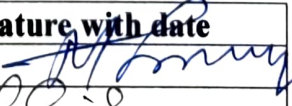

Certified that the project entitled Design and Fabrication of Dry Land Agricultural Cultivator is carried out by the following bonafide student of Mechanical Engineering in partial fulfillment for the award of Bachelor of Engineering, B. E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-22.

Sl. No.	USN	Name of Student
1	1DA18ME115	SHIVASHANKAR T C
2	1DA18ME125	SUMANTH
3	1DA18ME126	SUMANTH K N
4	1DA18ME134	VEERESH R

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report. The project report has been approved satisfying the academic requirements prescribed for the said Degree.

		
Signature of Guide	Signature of HOD	Signature of Principal

External Viva:

Sl. No.	Name of the Examiner	Signature with date
1	Dr. Mahendra Sanyal	
2	Dr. A. Mahendran	

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited by NAAC
with A Grade)



PROJECT REPORT

On

“STUDY ON THE PHYSICAL PROPERTIES OF NaOH TREATED BASALT/ KEVLAR EPOXY HYBRID COMPOSITES”

A dissertation submitted to Visvesvaraya Technological University, Belgaum.

In the partial fulfillment of the requisites for the award of

DEGREE OF BACHELOR OF ENGINEERING

in

MECHANICAL ENGINEERING

Submitted By

ABHISHEK V	1DA19ME401
BHARATH K L	1DA19ME403
CHANDAN K	1DA19ME406
SHREYAS R	1DA19ME426

Under the guidance of

Dr. RANJITH V BE, M-Tech, Ph.D.

Asst Professor

Department of Mechanical Engineering

Dr. Ambedkar institute of Technology, Bangalore

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute of Technology, Bangalore

2021-22

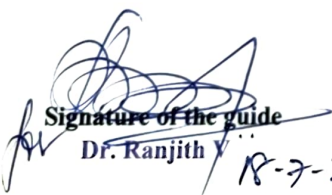
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University,
Belagavi, Accredited by NAAC with A Grade)




CERTIFICATE

This is to certify that the Major project work titled “STUDY ON THE PHYSICAL PROPERTIES OF NaOH TREATED BASALT/ KEVLAR EPOXY HYBRID COMPOSITES” is carried out by ABHISHEK V, BHARATH K L, CHANDAN K, SHREYAS R. Bonified students of Dr Ambedkar Institute of Technology Bengaluru-56. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature of the guide
Dr. Ranjith
18-7-22


Signature of the HOD
Dr. T.N. RAJU


Signature of the Principal
Dr. Meenakshi M.

External Viva

Name of the Examiners

Signature with Date

1.  
Dr. Mahendrasamy
2.  
Dr. Mahendrasamy, 18/7/22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi, Accredited by NAAC
with A Grade)



PROJECT REPORT

On

“DESIGN AND FABRICATION OF SOLAR GRASS CUTTER”

A dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfillment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING

Submitted By

AMRUTH N R	1DA18ME013
SUBHRADEEP MANNA	1DA18ME119
TEJAS T	1DA18ME131
YATHIN M P	1DA18ME144

Under the guidance of

Dr. SHIVAPPA H A

Assistant Professor, Department of Mechanical Engineering

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute Of Technology, Bangalore

2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)
BDA Outer Ring Road, Near Jnana Bharathi Campus,
Bengaluru - 560056



Department of Mechanical Engineering


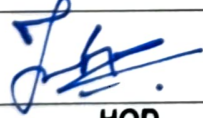
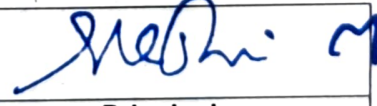
CERTIFICATE

Certified that the project work entitled “**DESIGN AND FABRICATION OF SOLAR GRASS CUTTER**” is carried out by the following bonafide students of Mechanical Engineering in partial Fulfilment forthe award of Bachelor of Engineering, B.E (Mechanical) at **Dr. Ambedkar Institute of Technology, Bangalore**, During the academic year 2021-2022.



SI. No	Name of Student	U S N
1	AMRUTH N R	1DA18ME013
2	SUBHRADEEP MANNA	1DA18ME119
3	TEJAS T	1DA18ME131
4	YATHIN M P	1DA18ME144

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

		
Guide	HOD	Principal

External Viva:

SI. No	Name of the examiner	Signature with date
1	Dr. Shivamurthy KA	
2	Dr. K. Veeralchandrappa	 15.7.22

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056
(An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



Aided By Govt. of Karnataka

PROJECT REPORT

On

“CONVERSION OF IC ENGINE VEHICLE INTO ELECTRIC VEHICLE”

**A Dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfilment of the requisites for the award of the Degree of**

BACHELOR OF ENGINEERING

in

MECHANICAL ENGINEERING

Submitted By:

GAGAN H SHAH

1DA17ME048

MANOJ.K. R

1DA17ME083

MOHAN.B

1DA17ME091

VARSHA.B. A

1DA17ME156

Under The Guidance Of

Dr. SHIVAPPA.H. A

Ph.D.

Assistant Professor

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute of Technology, Bangalore

2022

DR. AMBEDKAR INSTITUTE OF TECHNOLOGY

Near Jnana Bharathi Campus, BDA Outer Ring Road, Mallathahalli Bengaluru-560056
(An Autonomous Institution, affiliated to VTU, Belagavi, Aided by Govt. of Karnataka)



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work - Phase 3 (Eight Semester) entitled "Conversion of IC Engine vehicle into electric vehicle" is carried out by the following Bonafede students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B.E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-2022.

Sl. No	Name of students	USN
1	GAGAN H SHAH	IDA17ME048
2	MANOJ.K.R	IDA17ME083
3	MOHAN.B	IDA17ME091
4	VARSHA.B. A	IDA17ME156

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

Guide

Internal Examiner

HOD External VIVA:

Sl. No	Name of the examiner	Signature with date
1	Dr. Shivanna HA	
2	Dr. K. Vasanthadonna pp	

20

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(Near Jnana Bharathi Campus, Mallathahally, Bengaluru- 560056)
(An autonomous Institute Affiliated to Visvesvaraya Technological University,
Belagavi and Aided by Government of Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING



Aided By Govt. of Karnataka

PROJECT WORK PHASE II REPORT ON

“HYBRID ELECTRIC SCOOTER”

Submitted in partial fulfilment for the award of the degree.

Submitted By

AKHILESH S
MANOJ KUMAR S
GOKUL A

1DA18ME007
1DA18ME421
1DA18ME035

Under the Guidance of

Dr. GANGADHAR N
Associate Professor

DEPARTMENT OF MECHANICAL ENGINEERING,
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,
BENGALURU- 560056
2021-2022

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous Institute Affiliated to Visvesvaraya Technological University,
Belagavi and Aided by Government of Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project entitled "HYBRID ELECTRIC SCOOTER" is carried out by AKHILESH S (1DA18ME007), MANOJ KUMAR S (1DA18ME421) and GOKUL A (1DA18ME035), bonafide student of Dr Ambedkar Institute of Technology, Bengaluru-56, under the guidance during the academic year 2021-22 and is in partial fulfilment for the award of the Degree of Bachelor Engineering in Mechanical Engineering. It is to certify that all the corrections/suggestions indicated for the internal assessment have been incorporated in the report deposited in the department. It is further certified that this work has not been submitted to any university/organization for the award of any degree or diploma or certificate including a similar degree. The project report has been approved as it satisfied the academic requirements prescribed by the institute for the Bachelor of Engineering Degree.

Signature of the Guide

(Dr. GANGADHAR N)

Signature of HOD

(T.N. RAJU)

Signature of Principal

(Dr. M. MEENAKSHI)

Name of the Examiners

- 1) Dr. shivendra HA
- 2) Dr. K. Veerabhadraswamy

Signature with Date

18-7-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

[An Autonomous Institution, affiliated to VTU, Belgaum and Aided by Government of Karnataka]
Near Jnana Bharathi Campus, Mallathalli, Bangalore-560056



REPORT OF
MAJOR PROJECT WORK
ON

“SYNTHESIS AND THERMAL STUDIES ON COPPER OXIDE NANO-FLUID”

Submitted in partial fulfilment of the requirements for the award of the
degree of

**BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING**

SUBMITTED BY

H N ROHITH	1DA18ME040
HARISH T K	1DA18ME042
HEMANTH KUMAR H S	1DA18ME044
HEMANTH KUMAR T N	1DA18ME045

Under the guidance of

Dr. MOHAN KUMAR B

Assistant Professor,
Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology,
Bangalore.

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY


B.D.A, Outer Ring Road, Mallathahalli, Bangalore-560056

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

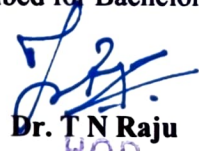
This is to certify that project work entitled "SYNTHESIS AND THERMAL STUDIES ON CuO NANOFUIDS" is a bonafied work carried out by H N ROHITH bearing USN:1DA18ME040, HARISH T K bearing USN:1DA18ME042, HEMANTH KUMAR H S bearing USN:1DA18ME044, HEMANTH KUMAR T N bearing USN:1DA18ME045 in partial fulfillment of the requirements for the award of the degree of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belgaum during the academic 2021-22. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for Bachelor of Engineering.


Dr. Mohan Kumar B

Assistant professor, Dept. of ME,
Dr. AIT, Bangalore-056



Dr. M. Meenakshi
Principal



HOD, Dept. of ME
Dr. AIT, Bangalore-056

Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bangalore - 560 056.


Dr. Ambedkar Institute of Technology, Bangalore – 560056

EXTERNAL VIVA VOCE

Name of the Examiners

1. Dr. Shrinivasa HA
2. Dr. K. Vasanthakumari

Signature with date


Date: 18.7.22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,

[An Autonomous Institution, Affiliated to VTU, Belgaum and Aided by Government of Karnataka]

Near Jnana Bharathi Campus, Mallathalli, Bangalore-560056



Aided By Govt. of Karnataka

REPORT OF MAJOR PROJECT WORK ON

“PORTABLE INCUBATION SYSTEM FOR PLANT GROWTH USING HYDROPONIC TECHNIQUE”

Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING IN MECHANICAL ENGINEERING

SUBMITTED BY

ABHISHEK M VEERAGHANTIMATH

1DA18ME003

DAWOOD MUZAWAR

1DA18ME029

DEEKSHITH

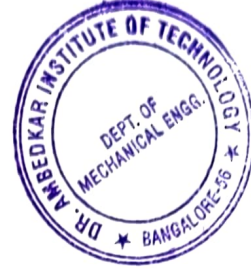
1DA18ME030

DEEPAK N

1DA18ME033

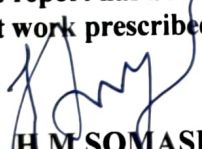
**Under the guidance of
Dr. H M SOMASHEKAR,
Assistant Professor,
Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology, Bangalore.**

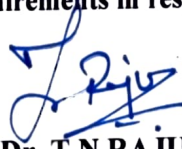
Dr. Ambedkar Institute of Technology
B.D.A, Outer Ring Road, Mallathahalli, Bangalore-560056
DEPARTMENT OF MECHANICAL
ENGINEERING



CERTIFICATE

This is to certify that the project work entitled “PORTABLE INCUBATION SYSTEM FOR PLANT GROWTH USING HYDROPONIC TECHNIQUE” is a bonafide work carried out by ABHISHEK M VEERAGHANTIMATH bearing USN: 1DA18ME003, DAWOOD MUZAWAR bearing USN: 1DA18ME029, DEEKSHITH bearing USN: 1DA18ME030, DEEPAK N bearing USN:1DA18ME033 in partial fulfillment of the requirements for the award of the degree of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belgaum during the academic year 2021-2022. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for Bachelor of Engineering.


Dr. H M SOMASHEKAR
Assistant Professor, Dept. of ME
Dr. AIT, Bangalore-560056


Dr. T N RAJU
HOD, Dept. of ME
Dr. AIT, Bangalore-560056


Dr. M MEENAKSHI
Principal


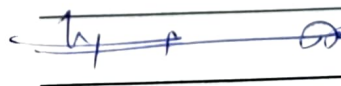
Dr. Ambedkar Institute of Technology, Bangalore – 560056

EXTERNAL VIVA VOCE

Name of the Examiners

Signature with date

1. Dr. Shivnatha
2. Dr. K. Veeralachandrapan



18.7.22

PROJECT REPORT
ON

"FABRICATION OF LOW-COST MECHANICAL
VENTILATOR WITH PATIENT MONITORING"



VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"Jnanasangama", Belgaum-590018

SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF
BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

Submitted By

CHETHAN K
DEEKSHITH J N
GOWTHAM M R
HARIPRASAD

1DA18ME025
1DA18ME032
1DA18ME036
1DA18ME041

Under The Guidance Of
Dr. H M SOMASHEKAR
Assistant Professor, Department of Mechanical Engineering
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY



Aided By Govt. of Karnataka

DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Malathahalli, Bengaluru-560056
2021-2022


Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi)




CERTIFICATE


This is to certify that the project work titled **“FABRICATION OF LOW-COST MECHANICAL VENTILATOR WITH PATIENT MONITORING”** is carried out by GOWTHAM M R, CHETHAN K, DEEKSHITH J N, HARIPRASAD. Bonafide students of **Dr. Ambedkar Institute of Technology** Bangalore. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature of the Guide


Signature of the HOD


Signature of the Principal

1. Dr. Shivappa^{Dr. AIT}
2. Dr. K. Veeralchandraappa
BMSCEP


18.7.22

Dr. Ambedkar Institute of Technology

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University,
Belagavi Accredited by NBA, NAAC with A Grade)
Mallathahalli, Bangalore - 560056



DEPARTMENT OF MECHANICAL ENGINEERING

Report on

“1-D SIMULATION STUDIES ON IMPACT OF HVAC SYSTEM LOAD ON ELECTRIC VEHICLE”

Submitted in partial fulfillment of the requirement for the award of the Degree of

Bachelor of Engineering

in

Mechanical Engineering

By

**ABHAY P DEVANGAVI
AJAYSHANKAR A
BIRADAR ABHISHEK
JIM PATRICK PEREIRA**

**1DA18ME001
1DA18ME005
1DA18ME020
1DA18ME049**

Under the Guidance of

Mr. ARAVINDA D

Assistant Professor
Department of Mechanical Engineering,
Dr. AIT, Bangalore



Visvesvaraya Technological University

Jnana Sangama, Belagavi, Karnataka-590018

2021-2022

Dr. Ambedkar Institute of Technology

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University,
Belagavi Accredited by NBA, NAAC with A Grade)
Mallathahalli, Bangalore - 560056



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work titled "1-D SIMULATION STUDIES ON IMPACT OF HVAC SYSTEM LOAD ON ELECTRIC VEHICLE" is a bonafide work carried out by ABHAY P DEVANGAVI bearing USN: 1DA18ME001, AJAYSHANKAR A bearing USN: 1DA18ME005, BIRADAR ABHISHEK bearing USN: 1DA18ME020, JIM PATRICK PEREIRA bearing USN: 1DA18ME049 in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF ENGINEERING** in **MECHANICAL ENGINEERING** of the **Dr. Ambedkar Institute of Technology, Bangalore**, during the academic year 2021-2022. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

SIGNATURE OF GUIDE

Mr. ARAVINDA D
Assistant Professor

SIGNATURE OF HOD

Dr. T.N. RAJU
HOD
Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
EXTENSION OFFICE

SIGNATURE OF PRINCIPAL

Dr. M. MEENAKSHI
Principal

Name of the Examiners

1. Dr. Shubana H A
2. Dr K. Veena Bhadrappa
BMSCE

Signature with date

**MAJOR PROJECT REPORT
ON**

**“LOW-COST SOLAR CUM BATTERY POWERED HYBRID
CHAINLESS DRIVE SYSTEM TRICYCLE FOR PHYSICAL
CHALLENGED PERSONS”**



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnanasangama”, Belgaum-590018

**A Dissertation submitted to Visvesvaraya Technological University,
Belgaum. In the partial fulfilment of the requisites for the award of the**

Degree of

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

C CHETHAN

SANTOSH

UMESH

VISWANATHA N

1DA19ME405

1DA19ME424

1DA19ME429

1DA19ME433

Under The Guidance Of

Dr. RAJESH M

Assistant Professor, Department of Mechanical Engineering

Dr. Ambedkar Institute of Technology



Aided By Govt. of Karnataka

**DEPARTMENT OF MECHANICAL ENGINEERING
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BDA Outer ring Road, Malathahalli, Bengaluru-560056
2021– 2022**

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous institution, Aided by Govt. of Karnataka, Affiliated to VTU)
BDA Outer Ring Road, Near Jnana Bharathi Campus, Bengaluru - 560056



Department of Mechanical Engineering



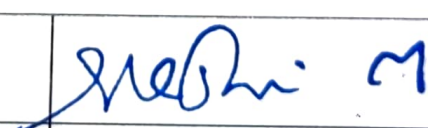
CERTIFICATE

Certified that the project work final report (Eighth Semester) entitled "**LOW-COST SOLAR CUM BATTERY POWERED HYBRID CHAINLESSDRIVE SYSTEM TRICYCLE FOR PHYSICAL CHALLENGED PERSONS**" is carried out by the following bonafide students of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering, B. E (Mechanical) at Dr. Ambedkar Institute of Technology, Bangalore, during the academic year 2021-22.


Sl. No	U S N	Name of Student
1	IDA19ME405	C CHETHAN
2	IDA19ME424	SANTOSH
3	IDA19ME429	UMESH
4	IDA19ME433	VISWANATHAN

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the project report.

The project report has been approved satisfying the academic requirements prescribed for the said Degree.

		
Guide	HOD	Principal

External Viva:

Sl. No	Name of the examiner	Signature with date
1		
2	Dr. K. Veera Bhadrappa	 18.7.22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi , Accredited by NAAC
with A Grade)



PROJECT REPORT

On

“EXPERIMENTAL AND COMPUTATIONAL STUDIES FOR THE TEMPERATURE FIELDS TO ESTIMATE PEAK TEMPERATURE AND COOLING RATES IN LASER BEAM WELDING OF AISI304 STEEL”

A dissertation submitted to Visvesvaraya Technological University, Belgaum.
In the partial fulfillment of the requisites for the award of the Degree of

BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING

Submitted By

Karthik S	1DA18ME051
Pavan	1DA18ME075
Ravi Kumar B	1DA18ME097
S Manjunath	1DA18ME102

Under the guidance of

Mrs. RATHIKA M.

Asst, Professor

Department of Mechanical Engineering
Dr. Ambedkar institute of Technology, Bangalore

DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Ambedkar Institute Of Technology, Bangalore

2021-22

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi ,Accredited by NAAC
with A Grade)



CERTIFICATE

This is to certify that the Major project work titled **“EXPERIMENTAL AND COMPUTATIONAL STUDIES FOR THE TEMPERATURE FIELDS TO ESTIMATE PEAK TEMPERATURE AND COOLING RATES IN LASER BEAM WELDING OF AISI304 STEEL”** is carried out by **KARTHIK S, PAVAN, RAVI KUMAR B, S MANJUNATH**. Bonified students of **Dr. Ambedkar Institute of Technology Bengaluru-56**. It is certified that all correction/suggestion indicated during internal assessment have been incorporated in the report deposited in the department. It is further certified that their work has not been submitted to any university/organization for award of any other degree or diploma certificate including a similar degree. The project report has been approved to satisfy the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature of the Guide
Mrs. RATHIKA M


Signature of the HOD
Dr. T. N. RAJU


Signature of the Principal
Dr. MEENAKSHI

External Viva

Sl No:

Name of the Examiners

Signature

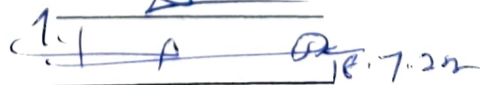
1.

Dr. Shubhakar H A



2.

Dr. K Veera Chadarappa


18.7.22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI-590018



Project Report

on

“DESIGN AND FABRICATION OF ATMOSPHERIC WATER GENERATOR ”

Submitted in partial fulfilment for the award of degree in

BACHELOR OF ENGINEERING

IN

“MECHANICAL ENGINEERING”

Submitted by :

SHIV NARAYAN PANDEY (1DA15ME126)

PRATYUSH ANAND (1DA15ME093)

Under the Guidance of :

“SRINATH T”

Assistant Professor

DEPT. OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

Outer Ring Road Mallathahalli, Near Inana Bharathi Campus, Bengaluru-560056

(An autonomous Institution Aided by Government)



DEPARTMENT OF MECHANICAL ENGINEERING

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

Outer Ring Road Mallathahalli, Near Jnana Bharathi Campus, Bengaluru-560056

(An autonomous Institution Aided by Government)

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the Project entitled carried "DESIGN AND FABRICATION OF ATMOSPHERIC WATER GENERATOR" out by us, SHIV NARAYAN PANDEY (1DA15ME126) PRATYUSH ANAND (1DA15ME093) bonafide students of, Dr.AIT is presented in partial fulfillment for the award of degree of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2021-2022.

Signature of the Guide

(SRINATH T)

Signature of HOD

(Dr. T. N. RAJU)

Signature of Principal

(Dr. M. MEENAKSHI)

Name of the Examiners

1) Dr. Shekhar H A

2) Dr. K. Veerachandrasappa
BMSCE

18.7.22