

SAPTHAGIRI COLLEGE OF ENGINEERING -BENGALURU-560057

(Accredited by NBA & Accredited by NAAC with "A" grade)
(An ISO 9001:2015 & ISO 14001:2015 Certified Institution)
(Affiliated to VTU, Belagavi and approved by AICTE, New Delhi)



Department of MECHANICAL ENGINEERING

(NBA Accredited)

Project Batch List - AY 2021-22

Batch No	Name of the Student	USN	Name of the Guide	Title of the Project
1	AAKASH P	1SG18ME001	Dr. Tulsidas D	solid fuel operated propellant for surveillance
	AJEETH N	1SG18ME005		
	DEEKSHITH GOWDA BM	1SG18ME022		
2	CHETHAN S	1SG18ME021	Dr. Mahadeva Swamy P	Smart umbrella for car
	HALEMBRE AMBIKA	1SG18ME029		
	JEEVITH ARVIND	1SG18ME038		
	MANJUSHREE K	1SG18ME050		
	ARUN KUMAR R	1SG18ME010	Satish Kumar Y D	Plastic bottle accumulation & management system foe eco friendly environment
	JAYANTH T	1SG18ME037		
3	KEERTHI G	1SG18ME041		
	PRIYANKA H S	1SG18ME065		
	RAHUL KR	1SG18ME067	Mohan A E	Multi purpose vehicle using computer vision
	RAJAT GOWDA	1SG18ME069		
4	SANDEEP GOWDA	1SG18ME073		
	BHARATH KUMAR	1SG19ME402		
	DHANUSH G	1SG18ME023	A M Mahesha	Design & fabrication os soil moisture detection BOT with IOT
•	LIKHITH R	1SG18ME046		
5	AKHIL BABU	1SG18ME006		
	GOWTHAM N	1SG19ME408		
	AKSHAY K	1SG18ME007	Mahesh S	Multipurpose agriculture machine
,	HEMANTH KUMAR M	1SG18ME033		
6	LOKENDRA N	1SG18ME047		
	NAVEEN KUMAR K	1SG19ME415		
	SACHIN KT	1SG18ME071	Thejas M S	Electric bike eith gear
7	MD SHAHID M	1SG18ME054		
	PUNITH GOWDA	1SG18ME066		
	SUPREETH KUMAR	1SG18ME084		



7	ASHA N	1SG18ME012		
	THILAK RAJU	1SG19ME431		
17	MANJESH K	1SG18ME049	Anil kumar P R	Path follower robot using microcontroller based on python program
	MANOJ N	1SG18ME053		
	PAVAN K R	1SG18ME057		
	SATHYA RAJ	1SG18ME076		
	PRASHANTH B S	1SG18ME061	Ramesh N G	Characteristics of epoxy polymer with graphene nano particles
18	PRASHANTH P	1SG18ME062		
	PRATHAP N	1SG18ME063		
	PRITHVI K	1SG18ME064		
	SUSHANTH B G	1SG17ME089	Mahesh S	under water remotely operated vehicle
19	DHRUVA NARAYAN S	1SG18ME024		
	DIVAKAR M J	1SG18ME025		
,	KIRAN BADAMI	1SG18ME042		
	CHETHAN V	1SG19ME404	Nataraj H N	Design and fabrication of Pro E-bike
20	GOUTHAM K	1SG19ME407		
	PRAJWAL SP	1SG19ME419		
	ASHA M	1SG18ME011		
	TEJAS P	1SG18ME087	Pramod S V	VIVACE- vertex induced vibration aquatic clean energy
	MANOJ KUMAR K N	1SG18ME051		
21	AMIT A PATIL	1SG18ME009		
	ADARSH KUMAR PV	1SG18ME004		
	RAHUL MISHRA	1SG18ME068	Chethan B P	Fire extinguishing robot using soun wave
	SHANTHANU H M	1SG18ME077		
22	VIVEK. S	1SG18ME095		
	VISHWAJEET S P	1SG18ME094		
	SANATH S T	1SG18ME072	Anil kumar P R	Tribological behaviour of grapheno nano silicon reinforced epoxy composite
	SURAJ J	1SG18ME085		
23	SUSHIL KUMAR SHAH	1SG18ME086		
	MANOJ M	1SG18ME062		
	ABHISHEK N	1SG18ME003	Ramkumar M	Fabrication and analysis of novel rocket stove for rural cooking application
24	HEMANTH BV	1SG18ME030		
	HEMANTH GOWDA V	1SG18ME031		
	HEMANTH KUMAR RK	1SG18ME034		



	DEEKSHITH K N	1SG19ME405		
25	GAGAN G	1SG19ME406	Mohan A E	motorized scissor jack
	PAVAN KUMAR B	1SG19ME417		
	PRADEEP R	1SG19ME418		
26	KIRAN KUMAR P	1SG18ME043	Ramesh N G	Design of machine elements problem using python
	T N SHARATH JAIN	1SG18ME078		
	AMRUTHADARSHNI	1SG19ME400		
	SANJAY J P	1SG19ME425		
27	VILAS RAJ Y	1SG18ME439	Nataraj H N	Gearless maglev wind mill power generation
	PARTHESH	1SG16ME062		
	CHATURTH E	1SG17ME014		
28	SRIKANTH.S	1SG17ME083	Thejas M S	Design of pneumatic bumper and intelligent breaking system
	ASHIK K.H	1SG17ME104		
	MALLIKARJUNA PATIL	1SG16ME050		
	SURYA SHUBHAM	1SG14ME350		
	LIKITH G T	1SG18ME420	Ram Kumar M	Solar tracker with automation irrigation
29	SHASHANK S	1SG18ME433		
	TILAK T JADHAV	1SG18ME436		
30	TEJAS L	1SG19ME429	- Ram Kumar M	Improvement of battery performance for 2 wheeler by using Bio-Enzyme
	SANJAY L	1SG19ME426		
	TEJASWVI N K	1SG19ME430	Dr. Basvaraj Ganiger	Dynamic mechanical analysis of epoxy reinforced composte material
31	NITESH S	1SG19ME416		
	AKIL BABU	1SG18ME006		
	CHETHAN H N	1SG18ME020		

Professor & Head Department of Mechanical Engineering Sapthagin College of Engineering Bengaiuru - 560 057,



14/5, Chikkasandra, Hesarghatta Main Road, Bengaluru-560057 (Affiliated to VTU, Belagavi and approved by AICTE, New Delhi)

DEPARTMENT OF MECHANICAL ENGINEERING



ERTIFICATE

Certified that the Project work entitled "DESIGN AND FABRICATION OF A SOLID PROPELLANT ROCKET AND WIRELESS LAUNCHPAD." carried out by Deekshith Gowda B M (1SG18ME022) and of 8th Semester Mechanical department in partial fulfillment for the award of degree in Bachelor of Engineering at Sapthagiri College of Engineering affiliated to Visvesvaraya Technological University, Belagavi for 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 department library. The Project report has been approved as it satisfies the academic requirements in prescribed for the said degree.

Signature of the Guide Dr. TULSIDAS D

Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of C

Mr. RAMESH N G

Assistant Professor

Signature of the Principal

Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

Signature with Date

28732

Sapthagiri College of Engineering 14/5, Chikkasapdra, Heearachalla Main Ro Bangalu u - 55/257



(Affiliated to Visvesvarava Technological University, Belagavi and Approved by AICTE-New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "SMART UMBRELLA FOR CAR" carried out by CHETHAN S (1SG18ME021), HALEMBRE AMBIKA (1SG18ME029), JEEVITH ARVIND (1SG18ME038), MANJUSHREE K (1SG18ME050) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 Dr. P MAHADEVASWAMY Professor and HOD

Signature of Co-Ordinator

825/07/22

Mr. RAMESH N G Assistant Professor.

Signature of the HOD Dr. P MAHADEVASWAMY

Department of Mechanical

Engineering

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

Signature with

Sapthagirl College of Engineering 14/5, Chikkasandra, Hesaragha".

Bengalury - 58



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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5 Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057



CERTIFICATE

This certified that the project work entitles "Plastic Bottle Accumulation and Management System for Eco-friendly Environment" carried out by ARUN KUMAR R (1SG18ME010), JAYANTH T (1SG18ME037), KEERTHI G (1SG18ME041) and PRIYANKA H S (1SG18ME065) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 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 Project work prescribed for the said degree.

Signature of the Guide Mr. Satish Kumar Y D Assistant Professor

Signature of the HOD Dr. P Mahadevaswamy Department of Mechanical

Engineering

Signature of Principal

Sapthagiri College of Engineering

Dr. H Rapiakrishna

Name of the Examiners

14/5, Chikkasandra, Hesa

Signature with date

Signature of Coordinator

Mr. Ramesh N G

Assistant Professor



(Affiliated to Viene surrya Technological University, Relayers and Approved by ANCTR New Delhi)

(Accredited by NAAC, with "A" (wade & ISO 9901:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(WEA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



ERTIFICATE

This Certified that the project work entitled "Multipurpose vehicle using computer vision" carried out by RAHUL K R (ISG18ME067), RAJATH GOWDA H R (1SG18ME069), SANDEEP GOWDA B S (1SG18ME073), BHARATH KUMAR S R (1SG19ME402), bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering. Bengaluru in partial fulfillment of 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. MOHAN A E Assistant Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

07 2022 Signature of Co-ordinator Mr. RAMESH N G

Assistant Professor.

Signature of the Principal Dr. H RAMAKRISHNA Sapthagiri College of Engineering

Name of the examiners

Signature with date

Sapthaght College of Engineering 14/5, Offikkesandra, Hesaracha



(Affiliated to Visvesvarawa Technological University, Belagavi and Approves by AICTE- New Delhi) (Accredited by NAAC "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5 Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057



CERTIFICATE

This certified that the project work entitles "SOIL MOISTURE DETECTION BOT WITH IOT" carried out by ABHILASH C.P (1SG18ME002) ,DHANUSH G (1SG18ME023),LIKHITH. R (1SG18ME046), GOWTHAM N (1SG19ME408) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 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 Project work prescribed for the said degree.

Signature of the Guide Mr. A. M MAHESHA Associate Professor

Signature of the HOD Dr. P Mahadevaswamy Department of Mechanical Engineering

Signature of Coordinator Mr. Ramesh N G Assistant Professor

Signature of Principalering TRamakrishyna Road College of Gingineering

Name of the Examiners

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road Bengaluru - 580 057

Signature with date



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "Multipurpose agriculture machine" carried out by AKSHAY K(1SG18ME007), HEMANTH KUMAR M(1SG18ME033), LOKENDRA N (1SG18ME047), NAVEENKUMAR K(1SG19ME415) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bangalore in partial fulfillment of 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.

maker h- 26/7/22

Signature of the guide

Mr. MAHESH S Assistant professor Signature of co-ordinate

826/7/22

Mr. RAMESH N G

Assistant professor

Signature of HOD

Dr. P MAHADEVASWAMY

Department of Mechanical

Engineering

Signature of the principal

Dr. H RAMAKRISHNA Sapthagiri College of Engineering

Name of the Examiners

Psapthagirl College of Engineering 14/5, Chikkasandra, Hesaraghatta Mai Bengaluru - 560 05

th Date Signature w

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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "Retrofitting for electric vehicle of geared bike" carried out by MD SHAHID M (1SG18ME054), PUNITH GOWDA S M (1SG18ME066), SACHIN K T (1SG18ME071), SUPREETH KUMAR K (1SG18ME084) bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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.

Mr. THEJAS M S Project guide

Dr. P MAHADEVASWAMY

HOD, Dept. of Mechanical Engineering

Mr. RAN

Project

coordinator

Dr. H RAMAKRISHNA Principal

Name of the Examiners

Signature with Date

Sapthagin Coppege of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road

Bengaluru - 560 057



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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5, Chikkasandra, Hesarghatta Main Road, Bengaluru-560057



ERTIFICATE

This Certified that the project Work entitled "Battery Operated Electric Agricultural Tiller" carried out by SHASHIDARAN R (1SG18ME079), VARUN B K (1SG18ME089), VASANTH G (1SG18ME090), YOGESH GOWDA K S (1SG18ME098) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 Dr. BASAVARAJ GANIGER

BM anif 27/07/22

Assistant Professor

Signature of the MOD

Dr. P MAHADEVASWAMY Department of Mechanical Engineering

Signature of the Project Co-ordinator Mr. RAMESH N G

Assistant Professor

Signature with date

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Examiner

Name of the examiner

rincipal

Sapthagti College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road

Bengaluru - 560 057

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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5 Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057



CERTIFICATE

This certified that the project work entitles "Design and Fabrication of Electric Walking Bike" carried out by DOCTOR BABU C (1SG18ME026), GNANESHA S H (1SG18ME028), HEMANTH KUMAR K (1SG18ME032) and KISHORE K V (1SG18ME044) bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 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 Project work prescribed for the said degree.

Signature of the Guide Dr. R G Deshpande Associate Professor

Signature of the HOD Dr. P Mahadevaswamy Department of Mechanical

Engineering

Signature of Coordinator Mr. Ramesh N G

Assistant Professor

Sapthagir Signature of Principal

Name of the Examiners

Sapthagirt College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road Bengaluru - 560 057

Signature with date



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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "DESIGN AND FABRICATION OF EHULLER" carried out by JAYA KUMAR M (1SG19ME410), KIRAN G (1SG19ME411), RASHANTH T P(1SG19ME420), SUPRITH M(1SG19ME427) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of the award of Machelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belagavi turing the year 2021-22. It is certified that all corrections/suggestions indicated for Internal Assessment have been accorporated 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. SATISH KUMAR Y D Assistant Professor Signature of the HO D
Dr. P MAHADEVASWAMY
Department of Mechanical Engineering

Signature of Co-Ordinator
Mr. RAMESH N G
Assistant Professor.

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Chikkasandra Heseraghatis Roed Banga ore-560 057

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road Bengalum - 560 gs. Signature with Date

B8 28,29/07/22

Name of the Examiners

1. Dr. R. a. Duspade

, PDAMAN CIL

(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



ERTIFICATE

This Certified that the project Work entitled "A-PILLAR BLIND SPOT MONITORING" carried out by AMAR SINGH (1SG18ME008), ASHISH HG (1SG18ME013), BHARAT S HEGDE (1SG18ME015), M V GAGAN (1SG18ME048) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 Dr. BASAVARAJU S Associate Professor

Signature of Co-Ordinator

19/18/07/22

Mr. RAMESH N G

Assistant Professor.

Signature of the HOD Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of the Principal Dr. H. RAMAKRISHNA Sapthagiri College of Engineering

Name of the Examiners

Date

1. Dr. R.G. Deshjonde 2. PRAMODS.V Sar

Signature with

Sapthagiri College of Engineeri 14/5, Chikkasandra, Hesaraghatin Mail

(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICT New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This certified that the project Work entitled "DESIGN AND FABRICATION OF PRO E-BIKE WITH SOLAR CHARGING" carried out by CHANDAN Y S (1SG19ME403), JAIRAJ H YADAV (1SG19ME409), NAGESHA V R (1SG19ME414), TEJAS J S (1SG19ME428) Bonafide students of8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bangalore in partial fulfillment of 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. NATARAJ H. N

Assistant Professor

Signature of the Guide

Dr. P MAHADEVASWAMY

Department of Mechanical Engg

Signature of the Project Coordinator

Mr. RAMESH N G

Assistant Professor

Signature of the principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Examiner

Name of the examiner

1. Dr. R. C. Des Lyondi

2. PRAMOD S.V

Signature with date

Por 28, 29/07/2022

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Bangalury - R



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "Fabrication of Smart Lawn Trimmer using Solar energy" carried out by PRAJWAL S (1SG18ME060), SANDESH R (1SG18ME074), SANJAYPRASAD R P (1SG18ME075), YASHWANTH B G (1SG18ME096) bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. BASAVARAJ GANIGER

Blanfostorlas

Project guide

Dr. P MAHADEVASWAMY

HOD, Dept. of Mechanical Engineering

Mr. RAMESH N G

Project coordinator

Dr. H RAMAKRISHNA

Principal

Name of the Examiners

1. Dr. R. G. Deshpende

2. PRAMOD S.V

Signature with Date

1 29/1/21

Post 2917/2022

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road Bengaluru - 560 057



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



ERTIFICATE

This Certified that the project work entitled "Automatic bike stand system" carried out by MONEETH KUMAR B (1SG19ME413), PRAVEEN C (1SG19ME421), ROHITH A N (1SG19ME423), THYAGARAJU B M (1SG19ME432), bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. MOHAN A E

Assistant Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of Co-ordinator

Mr. RAMESH N G Assistant Professor.

Signature of the Principal

Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the examiner

Signature with date

Sapthagirl College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Roa Bengaluru - 560 057



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DEPARTMENT OF MECHANICAL ENGINEERING

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14/5, Chikkasandra, Hesarghatta Main Road, Bengaluru-560057



ERTIFICATE

This Certified that the project Work entitled "Solar Powered Electric Bicycle" carried out by ROHIT SAVADATTI (1SG18ME070), SUDEEP S (1SG18ME081), UDAYKUMAR (1SG18ME088), VINAYAK V HARLAPUR (1SG18ME091) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. CHETHAN B P Assistant Professor

Signature of the HOD Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Mr. RAMESH N G Assistant Professor

Signature of the

Project Co-ordinator

Signature of the Principal Dr. H RAMAKRISHNA Sapthagiri College of Engineering

Examiner

Name of the examiner

1. Dr.R.G. Deshponde 2. PRAMOD S.V

Signature with date

Sapthagirl College of Engineering

14/5, Chikkasandra, Hesaraghatta Main Road



DEPARTMENT OF MECHANICAL ENGINEERING SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Hesaragatta, Main Road, Chikkasandara, Bengaluru-560057



CERTIFICATE

Certified that the project work entitled "ANTI RIOT SHIELD WITH PEPPER SPRAY AND BLINDING LED." carried out by P.K.SASIDHAR (1SG17ME054), PRAJWAL.R (1SG17ME058), ASHA.N (1SG18ME012), THILAK RAJU.V (1SG19ME431) bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 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 Projectwork prescribed for the said Degree.

Dr. R.G. DESHPANDE Signature of the Guide Dr. Mahadevaswamy P Signature of the HOD

Dr. H. Ramakrishna Signature of the Principal

Mr. RAMESH N.G Signature of co-ordinator

Reviewer

Name of the Reviewer

Signature with date

1. Dr. R. C. Peshgondi

2 PRAMOD SV

Boll, 29/7/22

Department of Mechanidal Engineering, Santhagerechlege of Engineering, 14/5, Chikkasandra, Hesaraghatta Main Road

Bannaluru - 560 057



Design and Fabrication of the Path follower robot DEPARTMENT OF MECHANICAL ENGINEERING SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Hesaragatta, Main Road, Chikkasandara, Bengaluru-560057



CERTIFICATE

Certified that the project work entitled "Design and Fabrication of the Path follower robot." carried out by MANJESH.K (1SG18ME049),PAVANK.R (1SG18ME057),MANOJ.N (1SG18ME053),SATYARAJ S (1SG18ME076) bonafide students of 8 th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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.

nil Kumar P R

Assistant Professor

Signature of the guide

Dr.Mahadevaswamy P

Department of Mechanical Engineering

Signature of the HOD

Assistant Professor Signature of Co-ordinator

Reviewer

Name of the Reviewer

Dr. R.C. Deshponde

PRAMOD S.V

Signature with date

Dr.H.Ramakrishna

Signature of the Principal

Sapthagiri college of Engineering

Sapthagirl College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road

Bengaluru - 560 057



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "Mechanical Properties Characterization Of Graphene Reinforced Epoxy Polymer Nano Composite" carried out by PRASHANTH B S (1SG18ME061), PRASHANTH P (1SG18ME062), PRATHAP N (1SG18ME063), PRITHVI K (1SG18ME064) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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 Proiect work prescribed for the said Degree.

PX 25/07/22 Signature of the Guide

Mr. RAMESH N G Assistant Professor Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

D8 25/07/22

Signature of Co-Ordinator

Mr. RAMESH N G

Assistant Professor.

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

Signature with Date

1. Dr. K. a Peshgande

2. PRAMOD S. Sapthaglet College of Engineering

Bengaluru - 580 057

5, Chikkasandra, Hesaraghatta Main Road



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "Underwater Remotely Operated Vehicle" carried out by SUSHANTH B G (1SG17ME089), DHRUVA NARAYAN S (1SG18ME024), DIVAKAR M J (1SG18ME025), KIRAN BADAMI (1SG18ME042) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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

makeshis aglala 2

Mr. Mahesh S. Assistant Professor Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of Co-Ordinator

Mr. RAMESH N G

Assistant Professor

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road,

Bangalore-560 057Signature with Date

Name of the Examiners

1. Ramal N. G

2. Dr. RASAVARAS GANZGE Sapthaght College of Engineering

14/5, Chikkasandra, Hesaraghatta Main



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICT New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This certified that the project Work entitled "DESIGN AND FABRICATION OF PRO E-BIKE" carried out by ASHA M (1SG18ME011), CHETHAN V (1SG19ME0404), GOUTHAM K 1SG19ME407), PRAJWAL S P (1SG19ME419) Bonafide students of8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bangalore in partial fulfillment of the award of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological Jniversity, Belagavi during the year 2021-22. It is certified that all corrections/suggestions indicated for nternal 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. NATARAJ H. N

Assistant Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engg

Signature of the principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Examiner

Name of the examiner

1. Ramul. N. G

BY-BASAVARAS GANZGER

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road Bengaluru - 560 057

Signature with date

Blanf 22/22/22

Signature of the Project Coordinator

Mr. RAMESH N G

Assistant Professor



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "VIVACE(Vortex Induced Vibration Aquatic Clean Energy)A new concept in generation of clean and renewable energy from fluid flow " carried out by ADARSH KUMAR P V (1SG18ME004), AMIT A PATIL (1SG18ME009), MANOJ KUMAR K N (1SG18ME051), TEJAS .P (1SG18ME087) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. PRAMOD S V

Assistant Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

1. Ramerh. N.G

2. Dr. BAS AVAR AJ GASEDHESgir College of Engineering

Signature with Date

Signature of Co-Ordinator

Mr. RAMESH N G

Assistant Professor.



(Affiliated to Visvesvarava Technological University, Belagavi and Approved by AICTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5, Chikkasandra, Hesarghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "Fire Extinguishing Bot Using Sound-Wave" carried out by RAHUL MISHRA (ISG18ME068), SHANTHANU H M (ISG18ME077), VISHWAJEETH S PATTAR (ISG18ME094), VIVEK S (ISG18ME095) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. CHETHAN B P Assistant Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of the Project Co-ordinator Mr. RAMESH N G Assistant Professor

Signature of the Principal
Dr. H RAMAKRISHNA
Sapthagiri College of Engineering

Examiner

Name of the examiner

1. Dr. BASAVARAS OFWELLER

2. Ramesh N.C.

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesarsphata Main Road Signature with date

Darif 39/03/28

P\$ 19/07/22



(Affiliated to Visuesvaraya Technological University, Belagavi and Approved by AiCTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

ONRA ACCREDITEDI

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaliuru-560057



CERTIFICATE

This Certified that the project Work entitled "Fabrication and Characterization of Nano graphene, Nano silicon and Reinforced epoxy composites" carried out by MANOJ M(1SG18ME052), SANATH S T (1SG18ME072), SURAI J (1SG18ME085), SUSHIL KUMAR SHAH (1SG18ME086) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfilment of the award of Bachelor of Engineering in Mechanical Engineering of the Visuesvaraya 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 W AND YUMAPPP Assistant Professor

Vame of the Examiners

2. St. Et Critical intilist

Dr. P MAHADEVASWAMY

Decartment of Mechafilical Engineering

Signature of the HOD

Signature of Co-Ordinator Mr. RAMESH N G

Assistant Professor.

Signature of the Principal

DE H RAMAKRISHINA

agiri College artigineering

agiri College of Engineding Engine with Date Onlikkasandra, Hesaraghatta Road

Eampailore-55

Principal Sapthagirl College of Engineering

14/5, Chikkasandra, Hesaraghatta Main Road Bengaluru - 58



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

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DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "FABRICATION AND ANALYSIS OF NOVEL ROCKET STOVE FOR RURAL COOKING APPLICATIONS" carried out by ABHISHEK N (1SG18ME003), HEMANTH B V (1SG18ME030), HEMANTH GOWDA V (1SG18ME031), HEMANTH KUMAR R K (1SG18ME034) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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

Signature of the Guide Mr. RAM KUMAR M Assistant Professor Signature of the HOD

Dr.P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of Co-Ordinator Mr. RAMESH N G Assistant Professor.

Signature of the Principal
Dr.H RAMAKRISHNA
Sapthagiri College of Engineering

Name of the Examiners

Signature with Date

1. Kamesh. N.G.

2. DY-RASAVARAS GANSapthagirl College of Engineering

4/5, Chikkasandra, Hesaraghatta Main Road

Bengaluru - 560 057



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



ERTIFICATE

This Certified that the project Work entitled "MOTORIZED SCISSOR JACK" carried out by DEEKSHITH K N (1SG19ME405), GAGAN G (1SG19ME406), PAVAN KUMAR B (1SG19ME417), PRADEEP R (1SG19ME418) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. MOHAN A E Assistant Professor

Signature of the HOD Dr. P MAHADEVASWAMY

Department of Mechanical Engineering/

Signature of Co-Ordinator Mr. RAMESH N G

Assistant Professor

Signature of the principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

EXAMINERS

Name of the Examiners

1. Lamesh N.G.

2. Dr. BASAVARAJ. GANDACK Sapthagiri College of Engineering

Signature with Date

andra, Hesaraghatta Main Road

Bengaluru - 580 057



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "Design of Machine Elements Numerical Solutions Using Python" carried out by Kiran Kumar P (1SG18ME043), Sharath Jain (1SG18ME078), Amrutha Darshini (1SG19ME400), Sanjay J P (1SG19ME425) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. RAMESH N G Assistant Professor

Signature of the HOD Dr. P MAHADE VASWAMY

Department of Mechanical Engineering

Signature of Co-Ordinator Mr. RAMESH N G

Assistant Professor.

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

Signature with Date

1. Ramush. N.G.

2 Dr. BASAVARAT GANTGER Principal
2 Dr. BASAVARAT GANTGER College of Engineering

14/5, Chikkasandra, Hesaraghatta Male:Rose Bengalury : 550 057

Parif 26/22



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)
(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "GEARLESS MAGLEV WIND MILL POWER GENERATION" carried out by VILAS RAJ Y (1SG18ME439), PARTHESH S (1SG16ME062), CHATURTH E (1SG17ME014), Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. NATARAJ H N

Assistant Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

23/07/22

Signature of Co-Ordinator

Mr. RAMESH N G

Assistant Professor.

Signature of the Principal

Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

1. Dr.R.G. Peshyon de

2. Mohan AE Sapthagiri College of Engineering

Signature with Date

28/7/22

Mb 28/7/2



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "DESIGN AND FABRICATION OF PNEUMATIC BUMPER AND INTELLIGENT BRAKING SYSYTEM" carried out by MALLIKARJUNA PATIL G(1SG16ME050), SRIKANTH.S (1SG17ME083), ASHIK K.H (1SG17ME104), SURYA SHUBHAM (1SG14ME350) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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

Signature of the Guide

Mr. THEJAS M.S.

Assistant Professor

Signature of the HOD

Dr. P MAHADEVASWAMY

Department of Mechanical Engineering

Signature of Co-Ordinator

126/01/22

Mr. RAMESH N G

Assistant Professor.

Signature of the Principal

Dr. H PAINGAUSRISHNA

Sephragin-Course of Engineering

Chikkasandra, Hesaraghatta Road,

Bangalore-560 057

Signature with Date

1. Dr.R. G. Der Apendy

2. Mohan AE Sapthagiri College of Engineering

14/5, Chikkasandra, Hesaraghatta Main Road

Bengaluru - 560 US7

Name of the Examiners

(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work "MULTI AXIS SOLAR TRACKER WITH AUTOMATED IRRIGATION" carried out by Likith G T (1SG18ME420), Shashank B (1SG18ME433), Tilak Tukaram Jadhav (1SG18ME436) Bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. RAMKUMAR M Assistant Professor

Signature of the HOD Dr. PMAHADEVASWAMY

Department of Mechanical Engineering

Signature of Co-Ordinator Mr. RAMESH N G

Assistant Professor.

Signature of the Principal Dr. H RAMAKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

1. Dr. Q.C. Deshponde 2. Mohan AE

Signature with Date

28/7/22

Sapthagirl College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Roled y Bengaluru - 560 057

28/7/22

(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi) (Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project work entitled "Performance of battery for a vehicle by using Bio-Enzyme" carried out by SANJAY L (1SG19ME426), TEJAS L (1SG19ME429), bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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. RAM KUMAR M Assistant Professor

Signature of the HOD Dr. P MAHADEVASWAMY Department of Mechanical Engineering Signature of Co-ordinator Mr. RAMESH N G Assistant Professor.

Signature of the Principal Dr. H RAMAKRISHNA Sapthagiri College of Engineering

Name of the examiner

Ramesh N. G 2 Dr. BASAUMRAS GE

nagiri College of Engineering

14/5, Chikkasandra, Hesaraghatta Main Road

Signature with date

(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE-New Delhi)

(Accredited by NAAC with "A" Grade & ISO 9001:2015 & ISO 14001:2015 Certified)

DEPARTMENT OF MECHANICAL ENGINEERING

(NBA ACCREDITED)

4/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057



CERTIFICATE

This Certified that the project Work entitled "MECHANICAL PROPERTIES CHARECTERIZATION OF GLASS FIBER & GRAPHENE REINFORCED EPOXY POLYMER" carried out by AKHIL BABU (1SG18ME006), CHETHAN.H N (1SG18ME020), NITHESH S (1SG19ME416), TEJASWI N K (1SG19ME430) bonafide students of 8th semester, Department of Mechanical Engineering at Sapthagiri College of Engineering, Bengaluru in partial fulfillment of 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

Clarify 27/07/22

Dr.BASAVARAJ **GANIGER**

AssistantProfessor

Signature of the HOD

Dr.PMAHADEVASWAMY

Department of Mechanical Engineering

Signature of Co-Ordinator

Mr. RAMESH N G Assistant Professor.

SignatureofthePrincipal Dr.H RAMÁKRISHNA

Sapthagiri College of Engineering

Name of the Examiners

Signature with Date

Dr.R. a. Des he and Sapthagir College of Engineering 14/5, Chikkacandra, Hesardenatta Main Road.
Bengaluru - 580 057

M/2 9817179