BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY, NAVI MUMBAI

MECHANICAL ENGINEERING DEPARTMENT

About Department:

Mechanical department was established in 2003-04 with an intake of 60. In the next year i.e. 2004-05 extra intake of 30 was added. Thus the total intake for the first year is 90. The department has well equipped labs, workshop, large and spacious Drawing Hall accommodating 60 students at a time and a individual computer lab with 20 pcs.

Keeping in mind the overall development of students, MESA was formed in 2004. This association has a library with about 200 books which are frequently referred by the students. The books in the library are updated as per the revised curriculum. MESA also conducts various seminars of eminent personalities from industries and academics, arranges industrial visits, group discussions, quiz competitions, etc. every year.

- **Year of Establishment:** 2004
- **Students Intake:** 60
- **Head of Department:** Mr. J.K.Patil
- **Contact-Phone No.:** 022- 27572434 / 27571074 / 27572104 EXT-177
- **Teaching Staff:** 10
- **Non-Technical Staff:** 08

Mission

- M1. To develop confidence in students by providing exposure to industry, thus preparing them to meet global challenges.
- M2. To provide conceptual knowledge and develop analytical ability.

1. M3. To develop written, oral and graphicalcommunication skills in both technical and non-

- M4. To enhance latest technical knowledge and problem-solving ability by lifelong learning and imparting ethical values to serve to the society.

Vision

Striving to be recognized for outstanding education and producing well-qualified diploma engineers, who are innovative, entrepreneurial and successful in advanced fields of engineering and higher education.

Program Outcomes:

- PO 1. Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, sciences and engineering fundamentals and engineering specialization to solve the engineering problems.
- PO 2. Problem analysis: Identify and analyse well-defined engineering problems using codified standard methods.
- PO 3. Design/ development of solutions: Design solutions for well-defined technical problems and assist with the design of system components or processes to meet specified needs.
- PO 4. Engineering tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
- • PO 5. Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.
- • PO 6. Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
- PO 7. Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes.

Program Educational Objectives (PEOs)

- PEO 1. To provide students socially responsible, environmental friendly solution to Mechanical engineering related broad based problems adapting professional's ethics.
- PEO 2. To adapt state-of-the-art Mechanical engineering broad-based technologies to work in multi- disciplinary work environments.

1. PEO 3. To prepare students to solve broad-based problems individually and as a team

Program Specific Outcomes:

1. PSO 1. Machines and Mechanism Usage:Students will demonstrate the ability to design and conduct experiments, interpret and

- PSO 2. Mechanical Engineering Maintenance: Students will be familiar with modern engineering software tools and equipment to analyse mechanical engineering problems.

FROM HOD'S DESK

I feel extremely proud of this initiative to publish the Newsletter "MECHMARVELS" of the Mechanical Department. I take this opportunity to offer sincere thanks to all who have taken efforts to publish this Newsletter. The Mission of BVIT is to nurture the students with Outcome based and value-based education and inculcate leadership qualities to make competent engineers. The students are kept abreast with the latest technological advancements through Industrial visits, Industrial trainings, Expert lectures and other Industry Institute Interactions. These interactions update and groom the students with all latest innovations and motivate them to bridge the gap between their knowledge and skills and Industry expectations.

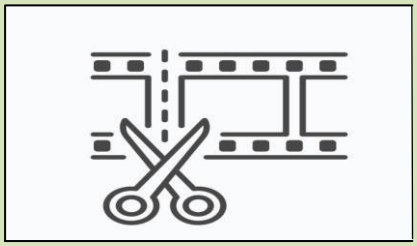
EDITORIAL BOARD

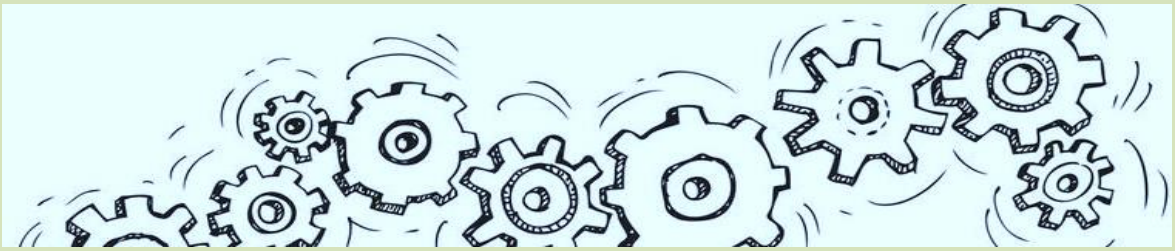
STAFF EDITORIAL COMMITTEE:

1. Mr.J.K. Patil
2. Mrs.Sarika Khare

STUDENT EDITORIAL COMMITTEE:

1. Chaitanya Shinde
2. Arhaan Shaikh





INTERACTION WITH INDUSTRY

Industrial Training (Students)

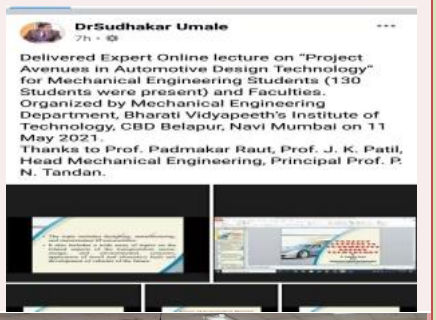
Sr.No.	Duration	Industry	Participants
1	9/8/2021 to 17/9/2021	CIPET Aurangabad CAD Department	107 Students

Industrial Visit (Students)

Sr.No.	Date of visit	Name of Company	Address of company
1	6/5/2022	Goel Power Engineers	MIDC Silwasa

GUEST LECTURES & PUBLICATIONS

Guest Lectures (Students)

Sr. No	Date of Lecture	Name of guest/ expert	Designation / Company	Topic	Photo
1	11-05-2021	Dr. Sudhakar Umale	HOD, Mechanical Engg. Dept., Sardar Patel College of Engg. , Andheri Mumbai	Project Avenues in Automotive Design Technology (on line)	
2	22-02-2022	Mr. Shrikant Shinde	CMD, GoGo group of Companies	Electrical Vehicles	

Studet Paper Publications

Sr.No.	Student Name	Publication/Name Of Guide	Journal Name	Date
1	1. Prashant Narayan 2. Meith Jain 3. Shubham Borade 4. Vedant Swami 5. Santosh Pal	Paper slicing mechanism via Geneva mechanism Shreya Chavan	IJARSCT	SEPT-2021
2	1. Vaibhav Zeple 2. Sagar Mohite 3. Suyash Mokal 4. Ganesh Patil	Design And Analysis Of Stress For Spur Gear Sarika Khare	IJIRSET	MAY-2022

FDP TRAININGS (FACULTY)

Sr.No.	Name of Faculty	Training Details
1	Mr. J K Patil	• Green Technology and sustainability engineering • Damage Tolerance a new design strategy
2	Mr.Satchidanand S. Choure	• Innovative Approaches To Develop Entrepreneurship Skills And Research Paper Writing Skills • Electric Transportation Infrastructure for E-mobility in INDIA
3	Mr. Padmakar Raut	• Damage Tolerance: A New Design Strategy • Challenges and Opportunities for Electric Vehicle Adoption
4	Mrs. Shreya Chavan	• Innovative Approaches To Develop Entrepreneurship Skills And Research Paper Writing Skills • IoT: A Journey from Sensor to Server
5	Mr.Amit Patil	• Water Quality Complication, Restoration and Environmental Conservation of Existing Water Bodies • 3D PRINTING AND DESIGN
6	Mr. Prashant Wankhede	• Innovative Approaches To Develop Entrepreneurship Skills And Research Paper Writing Skills • Introduction to Discreteevent modelling and Simulation
7	Mr. Uvraj Mane	• Trailblazing Practices In Geotechnical Engineering • Technology Enablers For Smart Manufacturing Using Industry 4.0
8	Mr. Sharadchandra Kantute	• Intellegence Artificial • Innovative Approaches To Develop Entrepreneurship Skills And Research Paper Writing Skills
9	Mrs. Sarika Khare	• 3D PRINTING AND DESIGN • Inculcating Universal Human Values in Technical Education

FACULTY PAPER PUBLICATIONS

Sr.No.	Faculty Name	Publication	Journal Name	Date
1	Mr. Sharadchandra V Kantute	DESIGN AND ANALYSIS OF STRESS FOR SPUR GEAR	IJASRE	DEC-2020
2	Mr. Prashant R. Wankhede	DESIGN AND ANALYSIS OF STRESS FOR SPUR GEAR	IJASRE	DEC-2020
3	Mr. Uvaraj V Mane	DESIGN AND STRUCTURAL ANALYSIS OF PELTON WHEEL TURBINE BLADE	IJASRE	DEC-2020
4	Mr. Satchidanand S Choure	DESIGN AND STRUCTURAL ANALYSIS OF PELTON WHEEL TURBINE BLADE	IJASRE	DEC-2020
5	Patil Jaypal K	Fault Diagnosis of Rotating Machinery Using Infrared Thermal Imaging	IJARSCT	FEB-2021
6	Raut Padmakar T	Fault Diagnosis of Rotating Machinery Using Infrared Thermal Imaging	IJARSCT	FEB-2021
7	Santosh V Kadam	Optimization Of Machining Parameters In CNC Turning For Alloy Steel By Taguchi Method	JETIR	MAY-2020
8	Shreya S. Chavan	Kinematic Analysis of Robot Manipulator	IJARSCT	OCT-2020
9	Amit J. Patil	Kinematic Analysis of Robot Manipulator	IJARSCT	OCT-2020
10	Sarika Khare	A Review on Piezoelectricity and piezoelectric material as a source of generating Electricity and it's working Applications	IJARSCT	Jun-21

PLACEMENT DATA 2021-22

Sr. No	Name of student	Enrollment No	Discipline	Year of Passing	On/Off Campus	Company Name
1	Anurag Patel	2000270350	ME	2022	ON	Go Digit General Insurance
2	Sagar Gawle	1900270383	ME	2022	ON	Go Digit General Insurance
3	Umesh Dhole	2000270335	ME	2022	ON	Siemens Ltd
4	Akash Jagtap	2000270351	ME	2022	ON	Grasim Industries
5	Abhijt Phate	2000270357	ME	2022	ON	Grasim Industries
6	Dhananjay Kadu	2000270355	ME	2022	ON	Reliance Industries Ltd

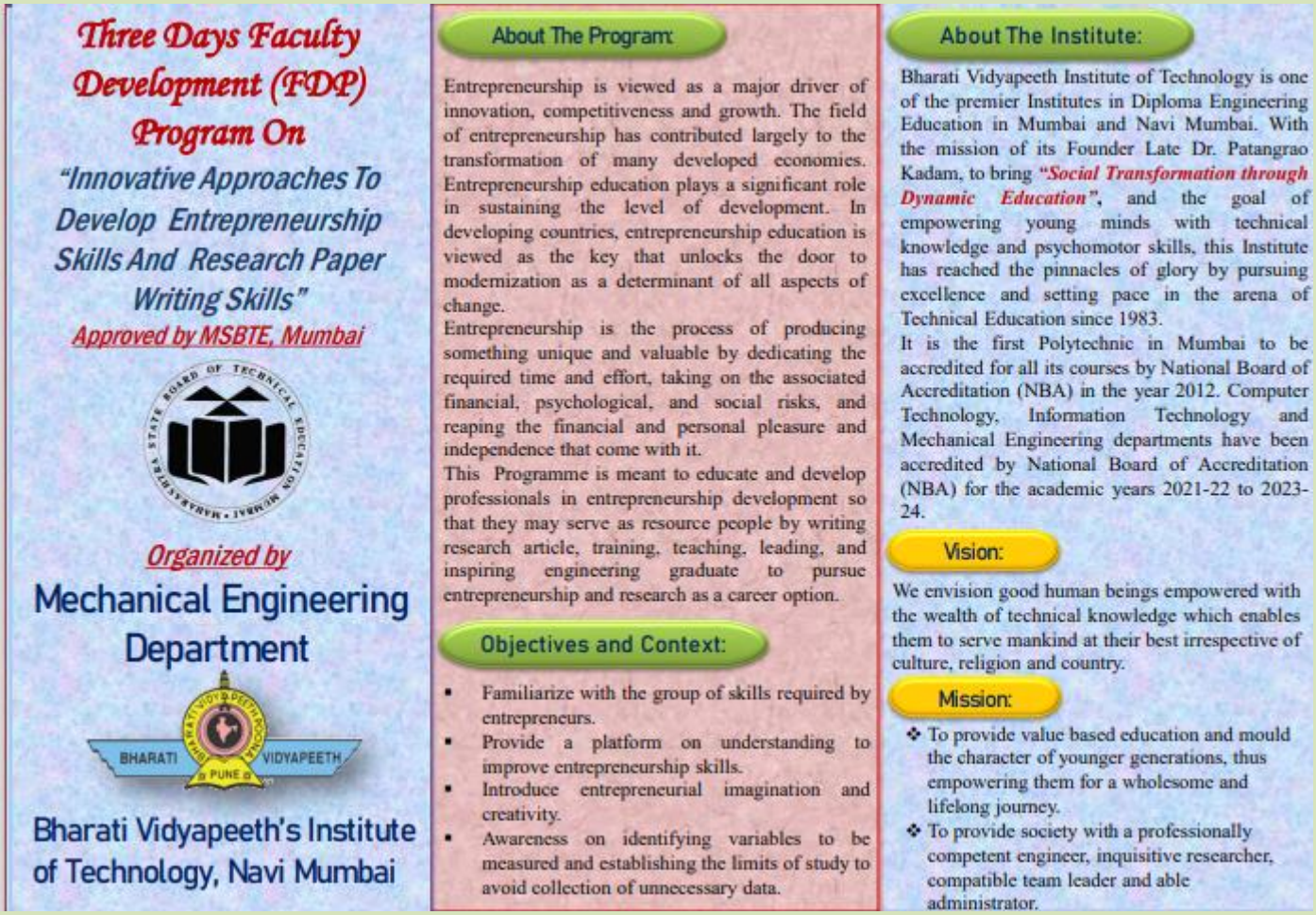
DEPARTMENT ACTIVITY

3 Days FDP on

"Innovative Approaches To Develop Entrepreneurship Skills And Research Paper Writing Skills"

Oraqnized by

MECHANICAL DEPARTMENT



BEST OUT OF WASTE BIKE

Best out of Waste bike

Hi guys my name is Sachin Gadhave, I am a student of mechanical engineering studying in Bharati Vidyapeeth, my hobby is to build things from waste material, I have keen interest in automobiles also my dream job is to own a car custom shop which would overhaul also modify the cars maybe new old wrecked. At first I used to draw sketches of bikes and cars but now I have stepped ahead towards getting practical with the technical parts, started with working in one of my friends garage also started doing household appliances repairing which made me self sufficient about technical knowhow.

I would like to share with you my first ever working model a Toy car made from waste...below are the procedural methodology of how I made it-

Materials Used-

Used refills and Pens, Used Soda cans, Wax candles, Loose toys parts, Insulating tape, Filling material

Using above materials I commenced my so called home made project. With the help of Google guru I assembled the materials and the product was taking a bit fair shape.

Firstly, I sketched the product on canvas which a toy bike. I selected the various scrap parts which were now to be Useful components to my Toy bike. Then Melted the plastics parts refills, pens, soda cans to join the basic frame of my toy Bike. Using adhesives gums and wax candles fix each components to each other as per design sketched. Using Used cricket Bat handle grips made the rubber tyres grips. The attached the small DC motor from ragged toy and the battery attachment assembly. Installed the power on/off button to the Toy Bike . Check the working but by Gods Grace no problem so incurred.

I felt so proud of me that I single handedly completed the task, my first ever working model which was top most achievement in my life. This encouraged me and curiosity in me to know more in this functional knowledge which is because I joined the engineering filed that to in Mechanical Department. During this year I submitted this Toy bike in college as mini project under Head of "BEST FROM WASTE" which had a moral of Renew and reuse as well as a satire to aware public about optimum utilization of materials and try avoiding wastage which would lessen the pollution as well as secures our green world.

Aditya Joshi-syce
(SYCE)

Best out of Waste bike






DEPARTMENT SCOLARZ...

2021

Akash Jadhav

93.49

2020

Niranjan Kolur

92.31

2019

Vishukant Pande

89.65

ANNUAL TOPPERS

First Year (2021-22)		Second Year (2021-22)
		
Arhaan Shaikh		SARNOBAT TANMAY LAXMAN
83.22		83.08