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Department of Mechanical Engineering

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In Ideas and
Solutions



COLLABORATION
For a Better
Tomorrow



SUSTAINABILITY
For a Greener
Future



Department of Mechanical Engineering
Newsletter

VOLUME 3, ISSUE 2
AY 2025–26

Bearys **Institute of** **Technology**

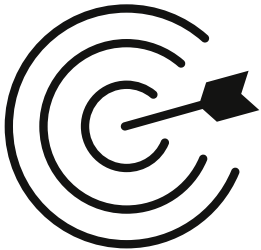
VISION

To be a premier institution in engineering education and research, fostering innovation, societal responsibility, and ethical leadership for a sustainable future.

MISSION

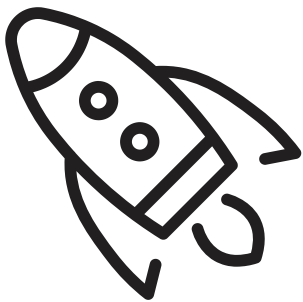
1. Promote innovation and cutting-edge research to develop sustainable engineering solutions for real-world and global challenges.
2. Cultivate ethical leadership and technical excellence among students to become responsible and leading engineering professionals.
3. Encourage active societal engagement and industry collaboration to drive inclusive growth and environmental responsibility.

Mechanical Engineering Department



VISION

To create a sustainable future by producing world-class mechanical engineers who can contribute towards a progressive, peaceful and greener world.



MISSION

To provide students with necessary skills and knowledge to design and develop innovative mechanical systems that are environment friendly.

To provide students and faculty members with opportunities for professional development and support in research, innovation, and entrepreneurship.

To provide a supportive learning environment through well qualified faculty members and state-of-the-art laboratories that encourage students to think critically and creatively, and to engage in real-world problem-solving.

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Editor's Message



Dear Reader,

I am delighted to present the 3rd edition of the Department of Mechanical Engineering's newsletter. This publication aims to provide you with a comprehensive overview of the dynamic activities and achievements within our department.

In this issue, we will highlight a range of engaging events and initiatives, including seminars, guest lectures, project exhibitions, social gatherings, and sports activities of Mechanical Engineering Department.

We hope this newsletter serves as a valuable resource, offering insights into the many ways our department is making an impact. From academic discussions to extracurricular events, each feature reflects the spirit of innovation and collaboration that defines our community.

We look forward to your continued engagement and support as we celebrate our accomplishments and share exciting updates in future editions.

Thank you for your enthusiasm and commitment to the Department of Mechanical Engineering.

Dr. Mohamed Kafeel Delvi
Editor-in-Chief

About Department

The Department of Mechanical Engineering was established in the academic year 2010 and currently has an intake capacity of 60 students for the B.E. program and 9 students for the M.Tech program in Machine Design. The Department has a team of dedicated teaching and non-teaching staff members and has also been bestowed with the honor of having faculty members with doctoral degrees in its team whose major research areas include Thermal Engineering, Non-Conventional Engineering, Advanced Materials and CIM.

The Department is having state-of-the-art laboratory facilities at the undergraduate and Postgraduate program. "SUPERSONIC AERODYNAMIC RESEARCH LABORATORY", a rare setup of its kind was developed in the department to enhance and create opportunities for enthusiastic and dynamic researchers in the area of jet tests, ballistics, projectiles and wind tunnels.

The department has produced many eminent engineers who have contributed in the areas of emerging technologies. The Department aims to support the overall growth of the students through activities such as extra-curricular, co-curricular, technical quiz, poster presentation contest throughout the year. Technical talks on Emerging Technologies were arranged by the experts invited from reputed institutions like NITs, IITs and Industries.

To enhance industry-institute interaction, industrial visits and internship programs were arranged in the reputed industries for the benefit of student fraternity. The department has pledged to develop its students into the best engineers in society, instilled with strong human values, who will serve the nation as a whole.

HOD's Message



Dr. Imran Mokashi
Associate Professor & HOD

It gives me immense pleasure to present the third edition of our departmental newsletter. The Department of Mechanical Engineering continues to achieve significant milestones in academics, research, and industry collaboration. Over the years, we have established strong partnerships with various industries, enabling us to align our academic activities with current industrial requirements and emerging technological trends. These collaborations have also strengthened our consultancy services and research initiatives, creating valuable opportunities for innovation and knowledge exchange.

Our department remains committed to providing a holistic learning environment for students. To enhance their employability and technical competence, we offer value-added courses in emerging areas such as Artificial Intelligence, Energy Literacy, and Management. We also regularly organize technical symposiums, workshops, industrial visits, internships, and skill-development programs that provide practical exposure and bridge the gap between classroom learning and industry expectations.

The faculty members of the department actively contribute to research and innovation through publications in reputed journals, patent filings, funded projects, and collaborative research activities. These accomplishments reflect our dedication to advancing knowledge and staying abreast of the latest developments in engineering and technology.

As we move ahead, I extend my sincere best wishes to all students, faculty members, alumni, and stakeholders for their continued support and contributions. Together, we will strive to achieve greater heights of excellence and innovation, further strengthening the legacy of the Department of Mechanical Engineering.

Teaching Staff



Dr. Imran Mokashi
Assoc. Professor & HOD



Dr. Vasantha Kumar
Assoc. Professor



Dr. Mohamed Kafeel Delvi
Assoc. Professor



Mr. Arvind Kumar
Asst. Professor



Mr. Prithviraj M
Asst. Professor



Mr. Mohiuddin A G
Asst. Professor



Mr. Hasansab Jamadar
Asst. Professor

Non-Teaching Staff



Mr. Clement Varthika
Foreman



Mr. Abdul Sathar
Lab Instructor



Mr. Bharathraj
Lab Instructor

Mechanical Engineering Students Association (MESA)



Dr. Mohamed Kafeel Delvi
MESA Coordinator

The Mechanical Engineering Students Association (MESA) is a platform created to enhance the learning experience of our students by blending academic knowledge with practical exposure. At MESA, we believe in fostering an environment where students of Mechanical Engineering can actively engage in co-curricular activities that not only complement their classroom learning but also prepare them for the challenges of the industry. Our aim is to encourage collaboration, innovation, and leadership among students, offering them opportunities to participate in technical workshops, seminars, industrial visits, and project exhibitions.

Through these initiatives, MESA strives to develop a well-rounded skill set in our students, making them industry-ready professionals. As the coordinator of MESA, I am excited to share the work and achievements during the academic year 2025-26 in this newsletter of Mechanical Engineering Department.

Sl. No.	Name	Designation	Role
FACULTY			
1	Dr. Imran Mokashi	HOD	President
2	Dr. Mohamed Kafeel Delvi	Assoc. Professor	Coordinator
3	Dr. Vasantha Kumar	Assoc. Professor	Treasurer
4	Mr. Arvind Kumar	Asst. Professor	Member
5	Mr. Prithviraj	Asst. Professor	Member
6	Mr. Hasansab Jamadar	Asst. Professor	Member
7	Mr. Mohiuddin A. J.	Asst. Professor	Member
STUDENTS			
1	Mr. Md Kunhi Ameen	Final year	Chairperson
2	Mr. Mohammad Faiz	Final year	Vice Chair & Secretary
3	Mr. Shamil	Final year	Treasurer
4	Mr. Nourash	Final year	Member
5	Mr. Azeez	Final year	Member
6	Mr. Saifullah	3 rd year	Member
7	Mr. Kashif	3 rd year	Member
8	Mr. Ashiq	3 rd year	Member
9	Mr. Arfan Suhail	3 rd year	Member
10	Mr. Adam Ibrahim	2 nd year	Member
11	Mr. Saleek	2 nd year	Member
12	Mr. Afried	2 nd year	Member
13	Mr. Humaid	2 nd year	Member

Functions:

1. To arrange technical talks by resource persons from industry/academia.
2. To organize technical workshops, quiz sessions, and orientation programs.
3. To organize cultural and sports activities.
4. To develop student chapters.
5. To develop an R&D center.
6. To enhance project-based education system.
7. To implement self-learning center.

Responsibility:

1. **President:** The head of all meetings, budget sanctioning authority, and final decision-making authority.
2. **Coordinator:** To arrange meetings of the executive committee and MESA committee, plan and propose activities in consultation with the executive committee, documentation.
3. **Treasurer:** Forum fee collection (as fixed by the executive committee), budget making, release of funds with consent from the President and Coordinator, auditing of MESA account.
4. **Chairperson:** The chairperson shall preside at all the meetings of MESA. Appoint the committees subject to approval of the executive committee and shall assume all other executive duties not otherwise delegated.
5. **Vice-Chair & Secretary:** The vice-chairperson shall perform all functions of the chairman in his/her absence or upon request. Keep a record of all the activities of MESA and shall report to the coordinator.
6. **Members:** Attend all MESA meetings, coordinate with the event committees, ensure 100% student participation, attendance, and discipline in all MESA activities, report to the coordinator and chairperson.

Events

Mechanical Engineering Students Organize Food Fest Under Social Service Initiative

The Department of Mechanical Engineering, Bearys Institute of Technology, successfully organized a Food Fest on 9th January 2026 in B201 Classroom as part of its Social Service initiative. The event was organized with the objective of promoting teamwork, entrepreneurship, social responsibility, and community engagement among students.

The program was inaugurated by Dr. K. Kamalakannan, Principal, Bearys Institute of Technology, in the presence of Dr. Imran Mokashi, Head of the Department of Mechanical Engineering, faculty members, and students. Addressing the gathering, Dr. Kamalakannan appreciated the efforts of the students and emphasized the importance of social service activities in developing leadership, management, and interpersonal skills. He encouraged students to actively participate in such events that contribute to the welfare of society.

Dr. Imran Mokashi congratulated the students on their enthusiastic involvement and appreciated their commitment to organizing the event successfully. He highlighted that such activities help students develop organizational and entrepreneurial skills while fostering a sense of social responsibility.

The Food Fest showcased a variety of delicious food items and refreshments prepared and managed by Mechanical Engineering students. The event received an overwhelming response from students, faculty members, and staff, creating a vibrant and enjoyable atmosphere. Through this initiative, students gained valuable experience in planning, teamwork, communication, and event management.

The event concluded successfully with active participation and positive feedback from all attendees. The Food Fest served as an excellent platform for students to combine creativity, service, and learning while contributing to a meaningful social cause.



Inauguration of Food Fest



Delicacies presented at the Event



Faculty Members Flavoring Taste Buds

Workshop on Design Thinking, Critical Thinking & Innovation

The Department of Mechanical Engineering at Bearys Institute of Technology, Mangalore organized a Workshop on Design Thinking, Critical Thinking & Innovation Design with the objective of enhancing the problem-solving abilities, analytical thinking, and innovative mindset of students and faculty members. The workshop focused on introducing participants to structured design thinking methodologies and their applications in solving real-world engineering and societal problems.

During the workshop, the resource person explained the various stages of design thinking, including problem identification, ideation, prototyping, and testing. Through interactive sessions, case studies, and group discussions, participants were encouraged to apply critical thinking and creative approaches to address practical challenges. The sessions also emphasized the importance of teamwork, collaboration, and innovation in engineering design and product development.

The workshop successfully helped bridge the gap between theoretical knowledge and practical application, enabling participants to understand how innovative design approaches can be used to develop effective solutions. The event provided a valuable platform for students and faculty to enhance their analytical, creative, and entrepreneurial skills, which are essential to meet current industry and societal demands.

Overall, the workshop was highly informative and beneficial, and it motivated participants to adopt innovative thinking and problem-solving approaches in their academic and professional activities.



Workshop Poster



Dignitaries on the Dais



Interaction Session with Participants



Felicitation of Resource Person Mr. Sachin S



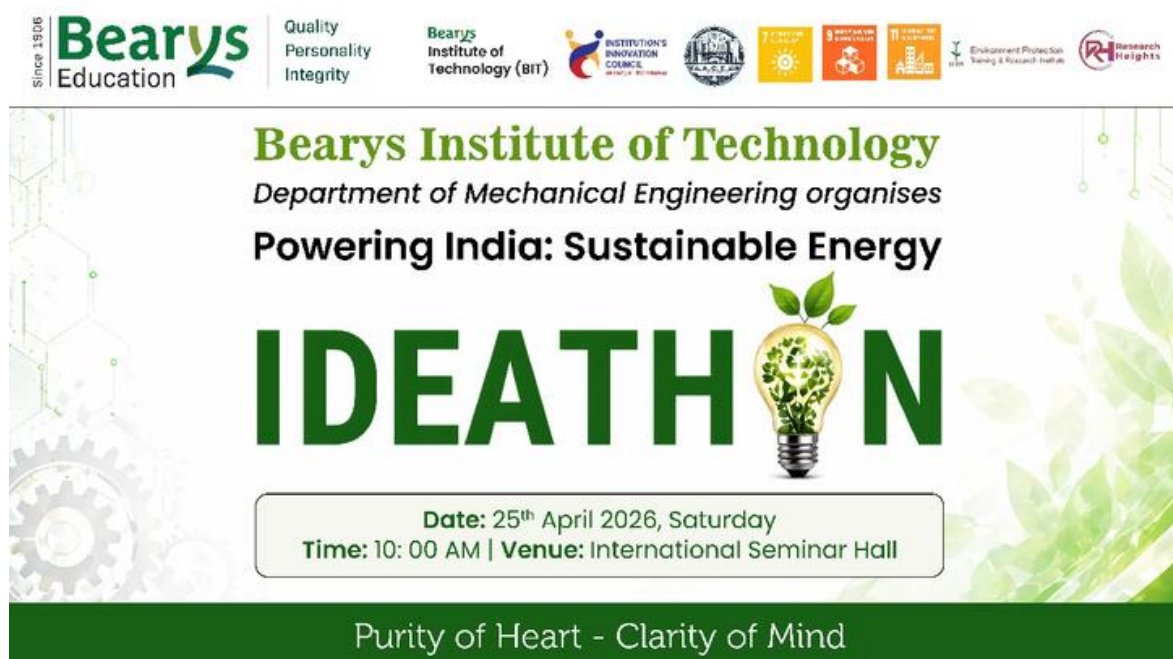
Mechanical Faculty with Mr. Sachin S

BIT Mechanical Engineering Department Conducts IDEATHON-2026

The Department of Mechanical Engineering at Bearys Institute of Technology (BIT), in association with the Institution's Innovation Council (IIC) and Mechanical Engineering Student Association (MESA), successfully organized the "Powering India – Sustainable Energy IDEATHON 2026" under the theme "Sustainable Ideas" at the International Seminar Hall on Saturday, April 25. The programme commenced with a welcome address by Dr. Imran Mokashi, Head of the Department, who emphasized the importance of such innovation-driven events in nurturing students' creativity and problem-solving abilities. Prof. Mohammed Sinan, Vice-Principal of BIT Mangalore, delivered the presidential address, highlighting the significance of IDEATHONS in fostering innovation and encouraging students to contribute to sustainable development.

The event was judged by Dr. Aziz Mustafa, Principal BIES, and Dr. Mehaboob Mujawar, Head of the AI & DS Department, who evaluated the ideas based on innovation, feasibility, and impact. The IDEATHON witnessed enthusiastic participation, with seventeen teams from various disciplines and institutions presenting innovative ideas. The interactive session provided a platform for students to engage with experts, seek clarifications, and gain insights into IDEATHON execution and funding opportunities. The programme was effectively coordinated by Dr. Mohamed Kafeel Delvi and Prof. Mohiuddin A. G. The event concluded with a vote of thanks delivered by Dr. Mohamed Kafeel Delvi.

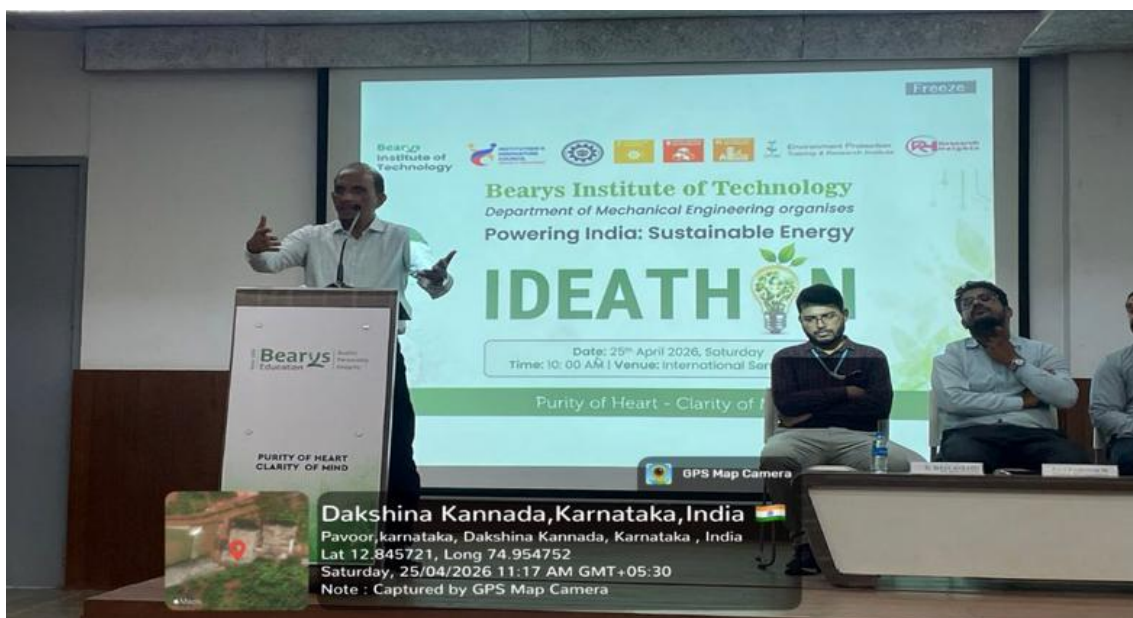
Photos



Event Backdrop Poster



Vice-Principal Addressing Participants



Principal of BIES Addressing Participants



Judges Examining the Innovation Ideas



Student participant



Students interacting with judges



Felicitation of IDEATHON Winners

Raising Capital and Financial Management for Start-ups

The Department of Mechanical Engineering in association with the Institution's Innovation Council (IIC), Bearys Institute of Technology, organized a workshop on "Raising Capital and Financial Management for Start-ups" to create awareness among students about start-ups funding and financial planning.

The session was delivered by an expert resource person who provided valuable insights into various funding avenues such as bootstrapping, angel investment, venture capital, and government schemes. The workshop also covered essential aspects of financial management including budgeting, cost control, financial planning, and risk management for start-ups.

Through real-time examples and interactive discussions, participants gained practical knowledge on how to prepare funding proposals, manage start-ups finances effectively, and make informed financial decisions. Students actively engaged in the session by asking questions and participating in discussions.

Overall, the workshop enhanced participants understanding of start-ups funding mechanisms and financial strategies, thereby encouraging entrepreneurial thinking, and equipping them with essential skills required for building sustainable start-ups.

Department of Mechanical Engineering at Bearys Institute of Technology (BIT), in association with the Institution's Innovation Council (IIC) and Food Chain Campaign, organized a workshop on "Raising Capital and Financial Management for Start-ups" under the theme "Nature, Youth and Economy" on April 22 at the International Seminar Hall.

The Head of the Department, Dr. Imran Mokashi, delivered the welcome address. He emphasized the importance of developing financial awareness, innovation, and entrepreneurial mindset among students.

The resource person, Mr. Yatheesh Tukaram, was introduced by the programme coordinator, Mr. Prithviraj M. During the technical session, detailed insights were provided on financial aspects required for start-ups, including sources of funding, methods of raising capital, financial planning, and challenges faced by new ventures. The session offered valuable guidance to students interested in starting their own enterprises.

The program concluded with a vote of thanks by Dr. Mohammed Kafeel Delvi, MESA Coordinator

Photos



Event Poster



Workshop on Raising Capital and Financial Management for Start-ups

“Farewell Function”

The Department of Mechanical Engineering, Bearys Institute of Technology, Mangalore, organized the Farewell Function 2026 for the outgoing 2022–2026 batch students on 25th May 2026 at the Seminar Hall under the banner of MESA (Mechanical Engineering Students Association). The program began with prayer. Dr. Imran Mokashi, Head of the Department, welcomed the dignitaries, faculty members, and students. A memory video highlighting the students’ academic journey was presented during the event. Dr. C. Kamalakannan, Principal of Bearys Institute of Technology, addressed the gathering and motivated the students for their future endeavors. Faculty members shared their experiences and best wishes, while outgoing student representatives expressed gratitude and shared memorable moments from their time in the department. Prizes for “Ideathon 2026” were distributed to the winners in recognition of their innovative ideas and performance. The program concluded with a vote of thanks from Dr Mohamed Kafeel Delvi, MESA Coordinator, followed by a group photograph. Mr. Saifulla served as the Master of Ceremonies and conducted the program in a smooth, professional manner. Their messages focused on resilience, adaptability, and the importance of lifelong learning. The event was well-coordinated by Dr. Imran Mokashi, Associate Professor and MESA (Mechanical Engineering Students’ Association) Coordinator, who played a vital role in planning and executing the program. As part of the farewell, mementoes were presented to each graduating student as a token of appreciation and to mark the successful completion of their undergraduate journey.

The function concluded with a vote of thanks, acknowledging the contributions of all dignitaries, faculty members, organizing committee members, and student volunteers. A group photo session followed the formal proceedings, documenting the occasion for institutional records.

The farewell program served as a formal closure to the academic journey of the 2021–2025 batch and provided an opportunity for the department to convey its best wishes to the graduates as they embark on their professional careers.

Event Photos:



Principal Addressing the Students



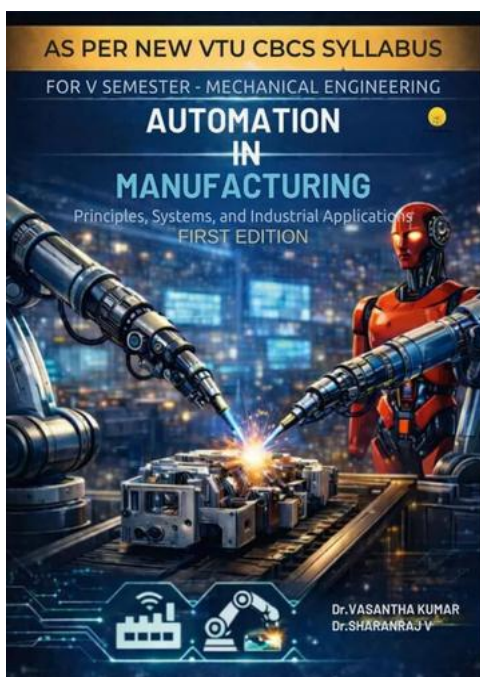
HOD Addressing Students



Faculty Addressing Students

Faculty Achievement

Dr Vasantha Kumar and Dr. Mohamed Kafeel Delvi have authored books on “Automation in Manufacturing ” and “Mastering Python Basics: A Structured Guide for Absolute Beginners” respectively.



The following faculty members successfully completed NPTEL courses this semester

Sl. No.	Name	Designation	Title
1	Dr. Imran Mokashi	Associate Professor & HOD	Enhancing Soft Skills and Personality Development
2	Dr. Vasantha Kumar	Associate Professor	Manufacturing Automation
3	Dr. Mohamed Kafeel Delvi	Associate Professor	Enhancing Soft Skills and Personality Development

Students' Achievements

4th Semester Mechanical Engineering Students Successfully Complete Energy Literacy Training

The Department of Mechanical Engineering, Bearys Institute of Technology, is proud to announce that all 4th Semester students have successfully completed the Energy Literacy Training (ELT) offered by the Energy Swaraj Foundation. The training program aims to create awareness about energy generation, consumption, conservation, carbon footprint, and the environmental impact of energy usage in the context of climate change and sustainable development.

The self-paced training consists of multiple interactive modules covering topics such as energy sources, energy wastage, renewable energy, carbon neutrality, and solar energy solutions. Through videos, exercises, and quizzes, students gained valuable insights into responsible energy consumption and the importance of adopting sustainable practices in their daily lives.

The successful completion of this course reflects the department's commitment to promoting environmental responsibility and sustainable engineering practices among future engineers. The initiative has empowered students to become energy-conscious citizens who can contribute effectively towards climate action and sustainable development goals.

Outcomes of the Training

1. Enhanced understanding of energy generation, consumption, and conservation.
2. Increased awareness of carbon footprint and climate change issues.
3. Ability to identify and reduce energy wastage in daily life.
4. Knowledge of renewable energy technologies and solar energy adoption.
5. Development of responsible and sustainable energy-use habits for a greener future.

Students Achievement

List of students completed course “Energy Literacy Training (ELT)”

Sl. No.	USN	Student Name
1	4BP23ME004	MOHAMMAD MARZOOK
2	4BP24ME001	ABDUL AZEEZ
3	4BP24ME002	ABDUL KHADAR SALEEK
4	4BP24ME003	ADAM HAFEEF H A
5	4BP24ME004	AFKHAR UL ALAM
6	4BP24ME005	AFLHAL RAAZHI SULTAN
7	4BP24ME006	AHAMED NAASHIT
8	4BP24ME007	ASIF ABDULLA
9	4BP24ME008	FAHAD IBRAHIM
10	4BP24ME009	HISHAM ABDUL HAMEED
11	4BP24ME010	KHALANDAR SHA MOHIN SHAFI
12	4BP24ME012	MAHAMMAD SHAYID
13	4BP24ME013	MAHAMMAD SHUAIB
14	4BP24ME015	MOHAMMAD IRSHAN
15	4BP24ME016	MOHAMMED RIFAD
16	4BP24ME017	MOHAMMED ABHEEL SAHAD
17	4BP24ME018	MOHAMMED HUMAID
18	4BP24ME019	MOHAMMED ISMAIL THABISH
19	4BP24ME021	MOHAMMED MISBAH
20	4BP24ME022	MOHAMMED NISHAM
21	4BP24ME023	MOHAMMED RAYEEZ
22	4BP24ME024	MOHAMMED RIHAN
23	4BP24ME025	MOHAMMED SAJJAD QURESHI
24	4BP24ME027	MOHAMMED SHIHABUDDIN
25	4BP24ME028	MOHIDIN SHAHAVAN
26	4BP24ME029	MUHAMMAD AFRIED PAYYAR
27	4BP24ME030	MUHAMMED ADIL
28	4BP24ME033	SIRAJ UL HASAN
29	4BP25ME400	ABDUL RAHMAN
30	4BP25ME401	ANWAR MIDLAJ
31	4BP25ME402	BADRUDDIN RAMEES
32	4BP25ME403	BORGUDDE MOHAMMED MURSHID
33	4BP25ME404	MOHAMMAD AZMAL
34	4BP25ME405	MOHAMMED RAZEEN
35	4BP25ME406	MOHAMMED SAHIL SHABBIR SHAIKH
36	4BP25ME407	MOHAMMED SAQUB RIYAZ MUJAWAR
37	4BP25ME408	MUHAMMAD FARHAN
38	4BP25ME409	TOUSHEEB USMAN GANI CHAVADIKAR

6th Semester students successfully completed NPTEL course.

Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
RAKSHITH NITHIN
for successfully completing the course

Industry 4.0: Managing The Digital Transformation

with a consolidated score of **81** %

Online Assignments	25/25	Proctored Exam	56.25/75
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Total number of candidates certified in this course: **567**

Feb-Apr 2026
(8 week course)

Prof. Srihar Iyer
Head, CDEEP & NPTEL Coordinator
IIT Bombay

Indian Institute of Technology Bombay

swayam

Roll No: NPTEL26GED4S1060500527 To verify the certificate  No. of credits recommended: 3

Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
KARTHIK
for successfully completing the course

Industry 4.0: Managing The Digital Transformation

with a consolidated score of **83** %

Online Assignments	24.58/25	Proctored Exam	58.5/75
--------------------	----------	----------------	---------

Total number of candidates certified in this course: **567**

Feb-Apr 2026
(8 week course)

Prof. Srihar Iyer
Head, CDEEP & NPTEL Coordinator
IIT Bombay

Indian Institute of Technology Bombay

swayam

Roll No: NPTEL26GED4S1060500567 To verify the certificate  No. of credits recommended: 3

Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
MD TABIS
for successfully completing the course

Enhancing Soft Skills and Personality

with a consolidated score of **64** %

Online Assignments	23.42/25	Proctored Exam	41.07/75
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Total number of candidates certified in this course: **17480**

Feb-Apr 2026
(8 week course)

Prof. R. V. Ravi Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL26HS47S1260500465 To verify the certificate  No. of credits recommended: 3

Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
MOHAMMED ZULKIFL SALIH
for successfully completing the course

Enhancing Soft Skills and Personality

with a consolidated score of **84** %

Online Assignments	24.04/25	Proctored Exam	60.32/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: **17480**

Feb-Apr 2026
(8 week course)

Prof. R. V. Ravi Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL26HS47S1260500565 To verify the certificate  No. of credits recommended: 3

Mohammad Humaid, 3rd-Sem Mechanical Engineering student, secured 1st place in the -55 kg category at the VTU State Level Karate Championship held at RVITM, Bengaluru, on 31st October 2025.

Congratulation
1st Place



Mohammad Humaid
(4BP24ME018)

55 kg category at the VTU State Level Karate Championship
at RVITM, Bengaluru, on 31st October 2025.

Best Wishes from
Management, Principal,
HOD, Faculty and Staff

Academic Toppers

8th Semester



MOHAMMED SHAHEER
FCD - 97%



E M MANVITH DAS
FCD - 96.75%



Mr. Ahmad Suhail Kalandar
FCD - 83.57%

6th Semester



Mr. KARTHIK
FCD - 84.2%



Mr. KEERTAN
FCD - 83.78%



Mr. ZULKIFL SALEH
FCD - 83.3%

4th Semester



Mr. Asif Abdulla
FCD - 85%



Mr. Tousheeb Usmangani
FCD - 84%



**Mr. Mohammed Sahil
Shabbir Shaikh**
FCD - 81%

BME803 Industry & Research Internship

Student Outcome Summary | Department of Mechanical Engineering



100% Offline • Industry Integrated • Financial Recognition

The Cohort at a Glance

25

**Student
Participants**

100%

**On-Site Industry
Exposure (Offline)**

Every internship was conducted entirely on-site, demonstrating a total commitment to hands-on, practical engineering exposure.

76%

**Secured Paid
Internships**

19 out of 25 students received financial stipends for their contributions.



The Compensation Matrix



Top Achiever Spotlight: MeDHaVi aspire

Top Departmental Stipend: ₹22,222/-

Celebrating the 7 exceptional students who secured the pinnacle compensation tier during their 100% offline industry integration in Bangalore.



Abdul Rahiman Shafeeq	Mohammed Sunaid V K	Mohammad Zakwan	Muhammad Fayiz
Shaik Moudheen Navavi TM Navavi T M		Zubair	Farzan

Engineering Character Alongside Careers

“Intelligence plus character – that is the goal of true education.” – Martin Luther King Jr.

Education is often associated with acquiring knowledge, developing skills, and building successful careers. While these are important objectives, the true purpose of education extends beyond academic achievement. It is equally about shaping character and nurturing responsible citizens who contribute positively to society.

In today's digital era, students are exposed to vast opportunities as well as significant challenges. Social media, artificial intelligence, and instant access to information have transformed the way we learn and interact. However, these advancements also demand greater responsibility, ethical decision-making, and self-discipline. Knowledge without values can lead to misuse of technology, while strong character helps individuals use knowledge for the greater good.

Character building involves cultivating qualities such as honesty, integrity, empathy, respect, accountability, and perseverance. These values influence how students respond to challenges, interact with others, and make decisions in their personal and professional lives. For future engineers, character is as important as technical competence. Society expects engineers not only to design innovative solutions but also to uphold safety, ethics, and social responsibility.

Educational institutions play a vital role in this process. Through classroom learning, teamwork, leadership activities, community service, and interactions with mentors, students learn lessons that extend far beyond textbooks. Teachers and parents together serve as role models, guiding young minds toward becoming responsible and compassionate individuals.

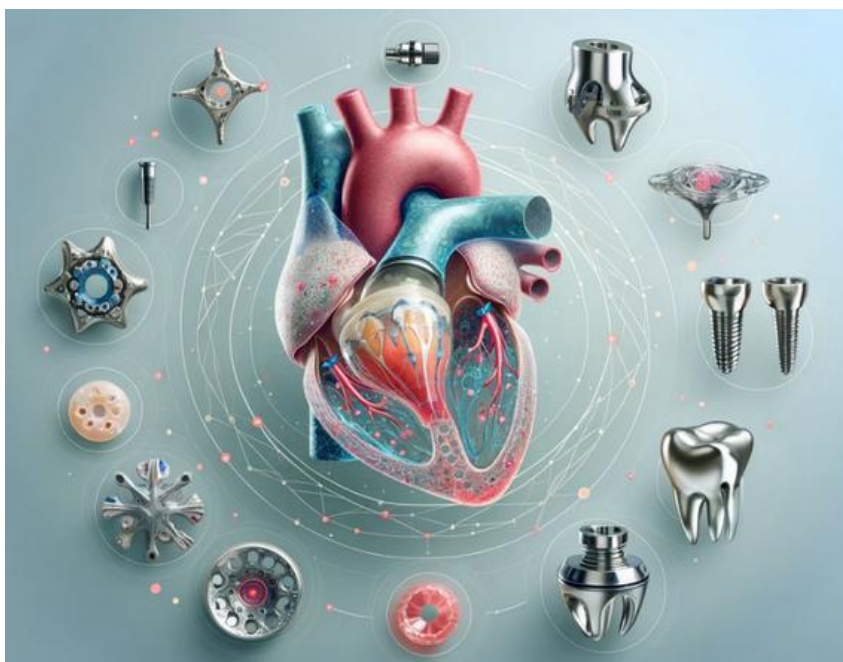
As we prepare students for successful careers, we must also prepare them to be ethical professionals and responsible citizens. Academic excellence and character development are not separate goals; they complement each other. A skilled engineer may build machines, but an engineer with character helps build a better society.

As Mahatma Gandhi rightly said, "Education which does not mould character is absolutely worthless." Let us strive to nurture both intellect and character, ensuring that our students become not only competent professionals but also exemplary human beings.

Dr. Imran Mokashi
Assoc. Professor & HOD

Smart Medical Implants: The Future of Healthcare with AI

Medical implants are becoming more advanced with the combination of Artificial Intelligence (AI) and innovative biomaterials. These developments are improving treatments involving bone implants, dental implants, cardiovascular stents, and tissue engineering.



Traditional implant materials such as stainless steel and cobalt-chromium alloys have been used successfully for many years. Today, researchers are developing new biomaterials that work more naturally with the human body. Titanium alloys provide high strength and excellent compatibility with bone, while bioactive glasses help stimulate bone growth and healing.

Another exciting development is the use of smart biomaterials. Hydrogels can respond to changes in the body and deliver medicines when needed. Biodegradable magnesium implants gradually dissolve after completing their function, reducing the need for additional surgeries.

Artificial Intelligence is playing a significant role in this field. AI can analyze substantial amounts of medical data to identify suitable materials and design patient-specific implants using medical imaging. This helps improve the fitness, performance, and success of implants.

In addition, 3D printing technology allows the production of customized implants with precise shapes and structures. Scientists are also exploring graphene-based materials and antimicrobial coatings to make implants stronger and more resistant to infections.

The future of healthcare lies in smart implants equipped with sensors that can monitor healing, detect infections, and transmit important health information to doctors in real-time. These innovations support safer treatments and better patient outcomes

The integration of AI and advanced biomaterials is transforming medical implant technology, leading to implants that are smarter, safer, and tailored to individual patient needs. Such advancements highlight the importance of interdisciplinary research in shaping the future of modern medicine.

Keywords: Artificial Intelligence, Biomaterials, Medical Implants, 3D Printing, Smart Implants, Personalized Healthcare.

Dr. Vasantha Kumar
Assoc. Professor

Future Scope of Mechanical Engineering

Mechanical Engineering remains one of the most versatile and dynamic branches of engineering, playing a crucial role in shaping modern industries and technological advancements. With the rapid growth of automation, artificial intelligence, renewable energy, electric vehicles, robotics, and advanced manufacturing, the demand for skilled mechanical engineers is expanding across the globe.

The future of mechanical engineering extends far beyond traditional manufacturing. Mechanical engineers are now contributing to the development of smart factories, autonomous systems, sustainable energy solutions, aerospace technologies, biomedical devices, and Industry 4.0 applications. Emerging fields such as additive manufacturing (3D printing), Internet of Things (IoT), digital twins, and intelligent maintenance systems are creating exciting career opportunities for graduates.

In the automotive sector, the transition towards electric and hybrid vehicles has opened new avenues in battery technology, thermal management, and vehicle design. Similarly, the renewable energy industry requires mechanical engineers for the design and maintenance of wind turbines, solar energy systems, and energy-efficient machinery.

Mechanical engineers are also becoming key contributors to research and innovation, addressing global challenges related to sustainability, resource optimization, and environmental protection. Their ability to combine creativity, analytical thinking, and technical expertise ensures their relevance in a rapidly changing technological landscape.

As industries continue to evolve, Mechanical Engineering will remain a cornerstone of innovation, offering rewarding careers in design, production, automation, research, entrepreneurship, and emerging technologies.

Dr. Mohamed Kafeel Delvi
Assoc. Professor

The Evolution of Mechanical Engineering Placements in the Manufacturing Sector

The manufacturing sector is undergoing its most profound transformation in decades. Driven by the principles of Industry 4.0, smart automation, and sustainable engineering, the modern factory floor is no longer just about heavy machinery and grease. For mechanical engineering graduates, this evolution has completely redefined the landscape of campus and professional placements. Today's manufacturing sector demands a hybrid professional who blends foundational mechanical design with data-driven technical expertise.

Core Placement Roles in Modern Manufacturing

While traditional roles remain vital, the integration of technology has birthed highly specialized, high-demand positions for fresh graduates and early-career engineers:

- **Production & Process Engineers:** Focused on optimizing production lines, improving throughput, and minimizing waste. Recruiters prioritize knowledge of Lean Manufacturing, Six Sigma, and Continuous Improvement methodologies.
- **Design & CAD/CAM Engineers:** Tasked with creating blueprints and digital twins of components. Mastery of tools like SolidWorks, CATIA, or AutoCAD is mandatory, alongside an understanding of manufacturing constraints.
- **Robotics & Automation Specialists:** As factories rapidly automate, companies heavily recruit mechanical graduates who understand PLC programming, CNC operations, industrial mechatronics, and robotic arm configuration.
- **Quality Assurance (QA) & Maintenance Engineers:** Tasked with keeping systems operational and compliant. These roles increasingly utilize predictive maintenance driven by IoT sensors rather than scheduled manual checks.

The manufacturing ecosystem offers placements across several specialized sub-sectors, ranging from heavy infrastructure to agile tech-manufacturing:

Bridging the Employability Gap: What Recruiters Want

Securing a premier placement in the manufacturing space requires moving beyond textbook formulas. Companies now explicitly test candidates on a multi-disciplinary skill set:

1. Digital and Software Competency

Knowing the laws of thermodynamics or fluid mechanics is only the baseline. Top-tier recruiters favor candidates who can run Finite Element Analysis (FEA) or Computational Fluid Dynamics (CFD) simulations. A working familiarity with Python or MATLAB for data tracking on the factory floor provides a significant competitive edge.

2. Practical Projects and Internships

A resume backed by a solid industrial training stint or an internship at a manufacturing plant stands out instantly. Employers look for capstone projects that address real-world inefficiencies, such as optimizing a mechanical link or reducing the cycle time of a machine.

3. Techno-Managerial Soft Skills

Manufacturing is a team-centric environment. An engineer must collaborate with assembly line workers, software teams, and upper management. Consequently, group discussions and interviews heavily vet a candidate's communication, problem-solving under pressure, and project management capabilities.

The Bottom Line: The manufacturing sector remains a resilient, evergreen powerhouse for mechanical engineers. However, the paradigm has shifted from pure mechanics to smart manufacturing. Graduates who intentionally upskill in automation, digital design, and data analytics will find themselves commanding the highest premiums in the placement market.

Prof. Arvind Kumar
Asst. Professor

Robotics and Artificial Intelligence in Mechanical Engineering

Introduction

Robotics and Artificial Intelligence (AI) are transforming the field of Mechanical Engineering. These technologies are improving productivity, accuracy, and efficiency in manufacturing, design, maintenance, and quality control. The integration of robotics and AI has become a key component of Industry 4.0, leading to smarter and more automated industrial systems.

Role of Robotics in Mechanical Engineering

Robots are widely used in industries for performing repetitive, dangerous, and high-precision tasks. Industrial robots are employed in welding, assembly, material handling, painting, and packaging operations. They reduce human effort, increase production speed, and improve product quality.

Collaborative robots, also known as cobots, work alongside humans and assist them in various manufacturing processes. These robots enhance workplace safety and productivity.

Artificial Intelligence Applications

Artificial Intelligence enables machines to learn from data and make intelligent decisions. In Mechanical Engineering, AI is used for:

- Predictive maintenance of machines
- Fault detection and diagnosis
- Process optimization
- Quality inspection using computer vision
- Smart manufacturing systems
- Autonomous robotic operations

AI algorithms analyze large amounts of data and help industries reduce downtime, maintenance costs, and operational errors.

Benefits

1. Increased productivity and efficiency
2. Improved accuracy and quality
3. Reduced operational costs
4. Enhanced workplace safety
5. Faster decision-making through data analysis
6. Better resource utilization

Challenges

Despite its advantages, the implementation of robotics and AI faces challenges such as high initial investment, cybersecurity concerns, and the need for skilled professionals. Proper training and infrastructure are essential for successful adoption.

Future Scope

The future of Mechanical Engineering will be highly influenced by intelligent automation. Advanced robots, digital twins, machine learning, and autonomous systems will play a major role in smart factories and sustainable manufacturing. Engineers with knowledge of robotics and AI will have excellent career opportunities.

Conclusion

Robotics and Artificial Intelligence are revolutionizing Mechanical Engineering by enabling smart, efficient, and reliable industrial operations. As technology continues to evolve, the combination of AI and robotics will create innovative solutions and shape the future of engineering and manufacturing.

Mohamed Saquib Riaz Mujawar
4th Semester
Mechanical Engineering

Burning Designs, Building Skills: A Student-Built CNC Pyrography Machine

Pyrography, the traditional art of wood burning, has always demanded a steady hand and hours of patience. I set out to automate it — and built a low-cost CNC machine that does exactly that, using 3D-printed parts and open-source electronics instead of expensive commercial components.

How It Works

The machine's frame is almost entirely 3D-printed, with a rack-and-pinion mechanism driving motion along the X, Y, and Z axes — a lightweight, easy-to-fabricate choice well-suited to the low forces involved in engraving. Three NEMA 17 stepper motors handle the movement, controlled by an Arduino Uno running GRBL firmware, a CNC Shield V3, and DRV8825 drivers. A soldering-iron-style pyrography pen serves as the engraving tool, heating up enough to burn clean patterns into plywood.

The workflow starts with a digital design, converted to G-code through CAM software and sent to the controller via gSender. Arduino translates this into synchronized stepper signals, and the rack-and-pinion system converts that rotation into precise linear motion — letting the tool trace out complex designs automatically, with minimal hands-on input.

Results and Impact

After assembly and calibration, the machine engraved digital designs onto plywood with smooth, repeatable motion and stable performance from the drivers and firmware. By relying on 3D printing instead of machined parts, the build cost stayed low without sacrificing the structural integrity needed for engraving work. Being open-source and modular, it is also easy to modify — whether for educational use, art projects, or small-scale prototyping.

This project was a hands-on lesson in combining mechanical design, embedded systems, and digital manufacturing — and proof that affordable, accessible CNC tools are well within reach for students willing to build them themselves.

Mohammed Zulkifl Salih
3rd Year
Mechanical Engineering

Alumni Note



I am Mohammed Anaz Abubakar, a proud graduate of the Mechanical Engineering Department, passed out in 2022. Currently, I am working in the oil and gas industry on the Master Gas expansion Phase 3 Project, Package 13, where I am involved in supporting project execution while maintaining high standards of safety, quality, and teamwork. Since graduation, my

professional journey has provided me with valuable exposure to large-scale industrial projects and has helped me develop both technical and interpersonal skills. One of my proudest achievements has been receiving a Certificate of Appreciation from Aramco in recognition of my contributions toward promoting a strong safety culture and fostering teamwork in the workplace. The foundation I gained during my engineering studies has played a significant role in my career development. Technical knowledge, problem-solving abilities, and discipline instilled by the department.

To current students, I encourage you to make the most of your learning opportunities, remain committed to continuous improvement, and prioritize safety, professionalism, and teamwork. Engineering is not only about technical expertise but also about responsibility, collaboration, and lifelong learning. I have been working in the oil and gas sector on the Master Gas Phase 3 Project, Package 13, Saudi Arabia. My experience includes supporting construction and project execution activities, coordinating with multidisciplinary teams, ensuring compliance with safety requirements, and monitoring work progress to meet project schedules and quality standards.

I sincerely thank the faculty and staff of the Mechanical Engineering Department for their guidance and support, and I wish the department and its students continued success in the years ahead.

With gratitude, respect, and love,

**Mohammed Anaz Abubakar,
Batch 2018–2022.**