



Mechanical
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# VISION AND MISSION

# **VISION**

• To create an excellent environment for quality base education in the field of Mechanical Engineering for preparing socially responsible technocrats and entrepreneurs.

### **MISSION**

- Impart quality education and enhance the creative and innovative skills to nurture globally acceptable mechanical engineer.
- Provide state-of-the-art laboratories and teaching-learning environment through qualified faculties.
- Develop linkage with Industry for excellence in research and consultancy services.
- Encourage life-long learning, ethical values and entrepreneurship culture for industrial and societal needs.

# Program Educational Objectives (PEOs)

- Apply core subject knowledge to various challenging problems.
- Adopt technical skills and leadership capability to explore the problems and present the solutions with professional ethics.
- Plan and manage the production of components as per needs of the society.
- Utilize engineering software and experimental capabilities to pursue research, higher education and entrepreneurship.

# Program Specific Outcome (PSOs)

- Graduates will be able to apply technical knowledge to identify, formulate and solve Mechanical Engineering problems relating to thermodynamics, fluid sciences, materials science, design and dynamics and industrial management.
- Graduates will utilize their skills to solve industrial and R&D problems using modern engineering tools, latest software and equipment for environment friendly solution. Graduates will be able to pursue their career as professional entrepreneur.

# FROM THE HOD'S DESK



In line with our department's vision and mission the first half of 2025 has been marked by significant technical engagement and skill development initiatives.

We successfully conducted a series of focused workshops and training programs designed to equip students with contemporary industry-relevant knowledge and practical expertise. These included a One Day Workshop on Model Rocketry, enhancing understanding of aerospace fundamentals; a One Day Workshop on Refrigeration and Air Conditioning, expanding skills in thermal systems; a comprehensive One Week Training on ANSYS Academic Multiphysics Campus Solution Software, sharpening simulation and analysis capabilities; and an intensive One Week Training on Automotive Systems at the Institute of Automobile Centre of Excellence, Gandhinagar, providing hands-on exposure to automotive technologies.

These activities reflect our commitment to fostering a learning environment that nurtures innovation, interdisciplinary collaboration, and holistic student development beyond textbook knowledge. Coupled with our mission to instil professional ethics, lifelong learning, and entrepreneurial spirit, the department remains dedicated to preparing graduates who can confidently meet evolving technological and societal challenges.

We extend our gratitude to faculty, industry partners, and experts whose support enables us to continually enhance the quality of education. Together, we look forward to sustaining this momentum in the coming semesters, fulfilling our vision and mission with renewed vigor.

# STUDENT ACHIEVEMENTS

In a remarkable domestic achievement, two more of our deserving students Agrawal Krishna and Thummar Nainish have been selected for the esteemed Student Exchange Program (SEP) at the Indian Institute of Technology, Gandhinagar (IITGN).



# DEPARTMENTAL ACTIVITIES

#### **VGEC Rocketry Team**

On 20th January 2025, the Mechanical Engineering Department of VGEC, in collaboration with the VGEC Rocketry Team, a Hands-on Rocketry Workshop at organized Block, Chandkheda. The event aimed to introduce students to the rocketry and the importance fundamentals of exploration. Participants explored three key areas—Avionics Systems, Propulsion Systems, and Structural Systems—through interactive sessions and demonstrations. The workshop concluded with a live model rocket launch, leaving participants inspired. Around 80 students took part under the guidance of Prof. Swapna Pawar and Yash Darji, who remarked, "Why sit there, when you can just build things."



#### **ONE DAY WORKSOP BY ISHRAE**

On 29th March 2025, mechanical engineering students attended a one-day workshop on Refrigeration and Air Conditioning organized by ISHRAE PDEU at Gandhinagar. The session offered practical exposure to refrigeration and air-conditioning systems, bridging the gap between theory and real-world application. Students observed various domestic and industrial setups, learned to calculate the Coefficient of Performance (COP), and performed hands-on experiments under different operating conditions. They also gained insights into using MATLAB software for theoretical calculations and system efficiency analysis. The workshop, coordinated by Prof. J.M. Joshi, proved highly informative and enhanced students' technical and analytical skills.





# **YOUNG MINDS**

#### Our Creative Confession — A Year of Pixels and Passion

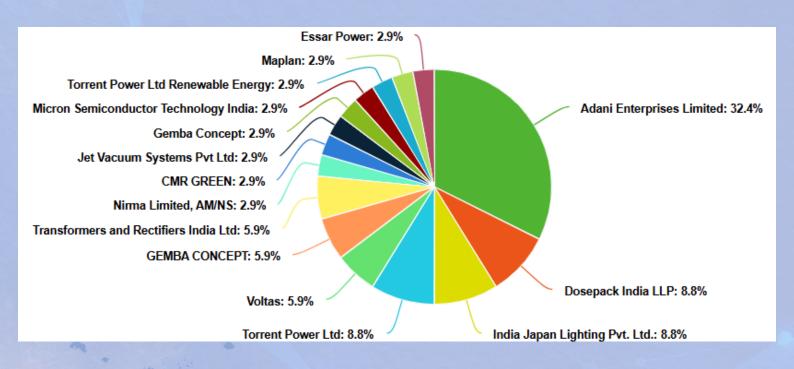
We are the Graphic Design Team, and for the last year, we've been the visual voice of this institution. Every vibrant post, every dynamic layout, and every striking image you've seen has been a labor of love, a challenge we embraced, and a piece of our soul poured into the digital canvas. We don't just 'make posters'; we translate the raw energy of VGEC life—your achievements, your events, and your stories—into visual narratives. As our time on this team winds down, we want to share the genuine experience of being a young creative mind at work. We invite you to explore the creative journey with us: What was the single most meaningful project we designed this year—the one that defined our best work? Beyond the technical tools, what core design skill (like composition, visual hierarchy, or storytelling) did we truly master that changed the way we see the world? And finally, what essential piece of design wisdom can we pass on to the next generation of creative students? We can't wait to share our stories and inspire those who will soon take the helm!

#### **MEMBERS OF GD TEAM:**

- ARPIT ASHOK BENDRE
- TIRTH MAKWANA
- NISARG ISLANIYA
- SHWETANSHU SHAH
- HARIOM RAVAL
- VANSH KO PATEL

# STUDENT PLACEMENT AND INDUSTRY CONNECT

Mechanical students secured placements in reputed companies during Jan–March 2025, reflecting strong industry linkages.



#### **OUR MAJOR RECRUITERS**

























# **CLOSING MESSAGE**

The Mechanical Engineering Department at VGEC continues to move forward with a clear vision – to nurture engineers who are innovative, industry-ready, and research-oriented. Through faculty development, student achievements, collaborations, and research industrial excellence, department remains committed to building a future-ready generation of mechanical engineers.

"Innovation distinguishes leaders from followers, and teamwork turns ideas into reality."

#### **Faculty Coordinator**

Student

**Student Coordinator** 

Prof. Viral A. Thakar Prof. Swapna A. Pawar

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