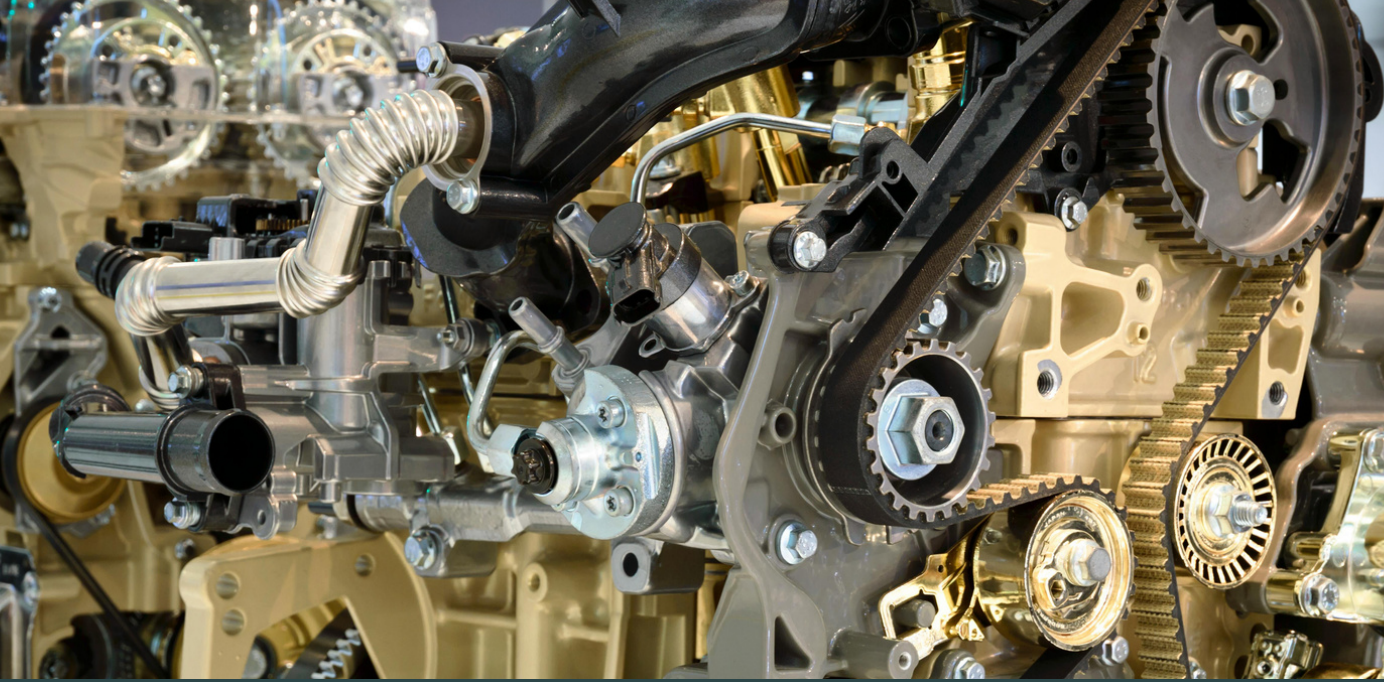
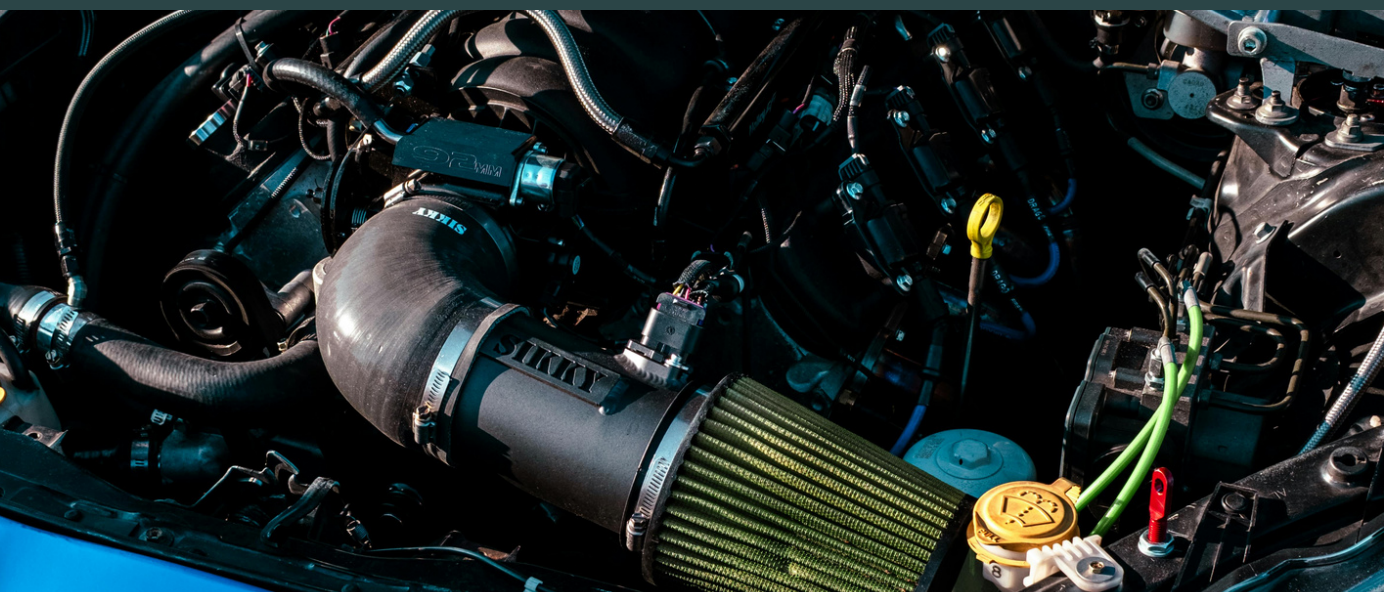




NEWS LETTER

JULY - DECEMBER

2025



MECHANICAL DEPARTMENT

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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



Dear Students, Faculty Members, and Staff, It gives me immense pleasure to share a proud milestone for our department. The Mechanical Engineering Department has been successfully accredited by the National Board of Accreditation (NBA). This significant achievement reflects the collective efforts, dedication, and commitment of our faculty, students, technical staff, and supporting administration towards maintaining high academic standards, quality education, and continuous improvement. I extend my heartfelt congratulations to the entire Mechanical Engineering family for this remarkable accomplishment. As we welcome the New Year, I convey my warm wishes to all students, faculty, and staff. May the New Year bring good health, happiness, peace, and prosperity to everyone. Let this new beginning inspire fresh hopes, renewed energy, and stronger determination to achieve excellence in academics, research, innovation, and professional growth. Along with this achievement, our department continues to focus on holistic student development through expert lectures, hands-on workshops, industrial training, software skill programs, and student-led technical activities. These initiatives are designed to bridge the gap between classroom learning and real-world engineering practice, making our students confident, skilled, and industry-ready. Looking ahead, we aim to further strengthen industry collaborations, promote innovation and research culture, encourage student participation in competitions and projects, and continuously upgrade our teaching– learning processes in line with NBA guidelines and outcome-based education. Once again, congratulations to all on achieving NBA accreditation. Let us take this as motivation to reach even greater heights in the years to come. With best wishes for a successful and fulfilling New Year.

DEPARTMENT ACTIVITY

EXPERT LECTURE ON METALLURGICAL IMPORTANCE OF HEAT TREATMENTS

The Mechanical Engineering Department organized an expert lecture on 10 September, 2025 on the Metallurgical Importance of Heat Treatment Processes and Their Effects on Microstructure. The session covered fundamental heat treatment processes such as annealing, normalizing, quenching, and tempering, along with a detailed explanation of the Iron–Carbon phase diagram. Students learned how microstructural changes influence mechanical properties such as hardness, toughness, and ductility. Real-life industrial examples made the session engaging and informative. The lecture helped students understand the critical role of heat treatment in materials engineering and modern manufacturing processes.



ONE-DAY HANDS-ON SESSION ON MODELING USING AUTOCAD AND SOLIDWORKS

The Mechanical Engineering Department conducted a one-day hands-on session on 15 September, 2025 on Modeling using AutoCAD and SolidWorks to strengthen students' Computer-Aided Design (CAD) skills. The workshop covered 2D drafting, 3D part modeling, assembly design, and basic simulation techniques. Through practical demonstrations and guided exercises, students gained confidence in using CAD software for machine drawing and design applications. The session successfully bridged the gap between theoretical concepts and industrial design practices. With active participation from 85 students, the workshop provided valuable exposure to modern engineering design tools widely used in industry.



ONE-DAY HANDS-ON SESSION ON HYDRAULIC AND PNEUMATIC MACHINE

The Mechanical Engineering Department of VGEC organized a one-day hands-on expert session on **September 20, 2025** on Hydraulic and Pneumatic Machines to provide students with practical exposure to fluid power systems. The session focused on the working principles and industrial applications of hydraulics and pneumatics, including hydraulic lifts, braking systems, and heavy machinery. Students actively worked with key components such as Directional Control Valves (DCV) and Flow Control Valves (FCV), helping them understand fluid flow control and actuator motion. The interactive demonstrations and practical exercises helped transform theoretical knowledge into real-world skills. A total of 66 students participated enthusiastically and benefited from the expert guidance. Overall, the session enhanced students' understanding of hydraulic and pneumatic systems and highlighted their importance in modern engineering applications.



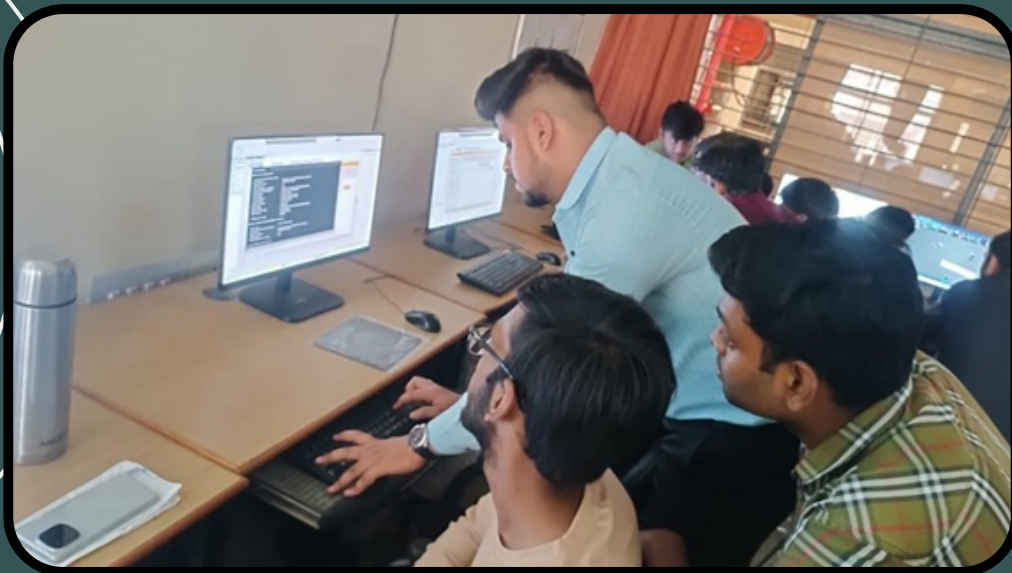
ISHRAE AHMEDABAD CHAPTER EXPERT TALK FOR VGEC STUDENTS

Ishrae Ahmedabad chapter organized a one day technical talk on the topics of Career Opportunities in HVAC&R , Start-up opportunities in HVAC sector and Positive attitude by distinguished members of Ishrae for the students of Mechanical Engineering at VGEC, Chandkheda on 11-09-2025. Around 65 students got benefited with this event. Faculty members also joined the program. This was an important event to bring together academia and industry.



ONE WEEK TRAINING PROGRAMME ON ANSYS

The Mechanical Engineering Department organized a one-week training programme on ANSYS, commencing on 23 September, 2025, to enhance students' skills in simulation and analysis. The programme introduced students to Finite Element Analysis (FEA) and Computational Fluid Dynamics (CFD) using ANSYS tools. Participants gained hands-on experience in structural analysis, meshing, boundary conditions, and fluid flow simulations. Practical exercises helped students apply theoretical knowledge to real engineering problems. The training equipped students with industry-relevant skills in simulation, design optimization, and performance analysis.



VISIT TO STARTUP CONCLAVE 2025 AT GANDHINAGAR

On 23rd and 24th September 2025, we (faculty members and students of the Mechanic Department) attended the **Startup Conclave 2025 held in Gandhinagar**. The conclave was a great platform where innovators, entrepreneurs, industry experts, and students came together to share ideas and experiences.

During the event, we learned about new startups, modern technologies, and innovative business ideas. Various speakers shared their entrepreneurial journeys, challenges, and success stories, which inspired us greatly. The conclave also provided insights into funding opportunities, skill development, and the importance of innovation in today's competitive world.

It was an informative and motivating experience for all of us. The event encouraged students to think creatively and explore opportunities beyond traditional career paths. Overall, attending Startup Conclave 2025 was a valuable learning experience that broadened our knowledge about entrepreneurship and innovation.



VISIT TO THE BOOK FAIR IN AHMEDABAD

From **13th to 21st November 2025**, we, the faculty members and all the students of the Mechanic Department, **visited the Book Fair in Ahmedabad**. It was a wonderful and knowledgeable experience for all of us. The fair had numerous stalls from well-known publishers displaying a wide range of books related to academics, competitive exams, technical subjects, literature, and general knowledge.

During our visit, we explored many useful books related to our mechanical field, which will help us improve our technical knowledge and practical understanding. The environment of the fair was very inspiring and full of enthusiasm. Students showed great interest in different types of books and many of us purchased valuable study materials at reasonable prices.

The visit also helped us understand the importance of reading and staying updated with the latest information and technology. It was not only an educational trip but also an enjoyable experience for everyone. Overall, the Book Fair visit was informative, inspiring, and beneficial for both students and faculty members of the Mechanic Department.



MODEL ROCKETRY WORKSHOP

The Mechanical Engineering Department, in collaboration with the **VGEC Rocketry Team**, successfully organized an intensive Model Rocketry Workshop on **6th December 2025** at M Block, Vishwakarma Government Engineering College. The workshop provided participants with comprehensive, hands-on exposure to core aerospace engineering principles, moving beyond theoretical concepts to practical implementation.

The session covered key technical domains including propulsion dynamics, structural design, avionics systems, and the application of additive manufacturing (3D printing) in fabricating specialized rocket components. A major highlight of the workshop was the successful live launch of a model rocket on campus, demonstrating the real-world integration of all subsystems. The event witnessed enthusiastic participation from 40 students along with faculty members.

The workshop was led by the **VGEC Rocketry Team** and coordinated by **Prof. S. A. Pawar**. It effectively strengthened participants' understanding of thrust generation, aerodynamics, structural integrity, and electronic control systems.

This initiative not only enhanced practical engineering skills but also ignited curiosity and innovation among students. As aptly quoted by VRT, "Is sky even the limit?"



ISHRAE VGEC, AHMEDABAD STUDENT CHAPTER INSTALLATION CEREMONY

The Installation Ceremony of the ISHRAE VGEC Student Chapter for the society year [2025-2026] was successfully conducted on 9th December 2025 at the ISHRAE Office, Panjarapole, Ahmedabad. The event marked the official commencement of the new chapter committee and celebrated the spirit of leadership, innovation, and professional growth among student members.

The ceremony was attended by distinguished ISHRAE officials, faculty coordinators and student members. During the event, the newly elected office bearers were formally introduced and entrusted with their respective responsibilities for the upcoming term and all the committee members took oath to be loyal to their work and to be honest to their work.



FACULTY ACHIEVEMENTS

The Department of Mechanical Engineering proudly congratulates the following faculty members on successfully earning their Ph.D. degrees:

- **Prof. Manish N. Parmar – June 2025**
- **Prof. Vaishali K. Patel – December 2025**

The Department extends its sincere congratulations and wishes them continued success in their academic and research endeavors.

STUDENT ACHIEVEMENT

We are proud to share that **Nainish Thummar** and **Krishna Agrawal** were selected in **July** for **Semester 5** at **Indian Institute of Technology Gandhinagar** under the **Gujarat Technological University** Student Exchange Program. This achievement highlights their academic excellence and dedication. The program offers exposure to advanced learning, innovative pedagogy, and a competitive academic environment. We congratulate them on this accomplishment and wish them continued success in their academic journey.



We are proud to announce that two of our bright Mechanical Engineering students from the 7 TH

semester, **Rathod Nidhi Bharatbhai** and **Sidhwani Ranjankumar Hargun**, have been selected to participate in the **International Experience Program (IEP) 2025**.

Organized by **Gujarat Technological University (GTU)**, the program will take place at the prestigious University of Wismar, Germany, from **July 10 to August 15, 2025**. During their experience, they will be studying key subjects including Design of Machine Elements, Quality & Reliability Engineering, and completing a Summer Internship.

This is a fantastic opportunity for our students to gain global exposure, enhance their technical knowledge, and experience a new academic culture. We wish them all the best for this enriching journey!





Kamaliya Bhargav Jitubhai (Sem 5) secured the Runner-Up position in Kabaddi at **GTU Spirit**, held on **18 August 2025**. Competing at the national level, he displayed exceptional strength, teamwork, and determination on the field.



Tejas Harshesh Joshi (Sem 5) secured 1st Place in Cricket at **GTU Spirit 2025–26**, organized by GTU on **21 August 2025**. Competing at the state level, he demonstrated outstanding performance, leadership, and teamwork on the field.



Shah Rampravesh (Sem 5) secured **1st Prize (Winner)** at the Finnovate Hackathon organized by Indian Institute of Technology Gandhinagar on **8 November 2025**. Competing at the national level, he demonstrated exceptional technical skills, innovation, and problem-solving ability.

A total of **27 students** actively participated in various technical and non-technical events, showcasing enthusiasm, talent, and a strong competitive spirit across multiple platforms.

YOUNG MINDS

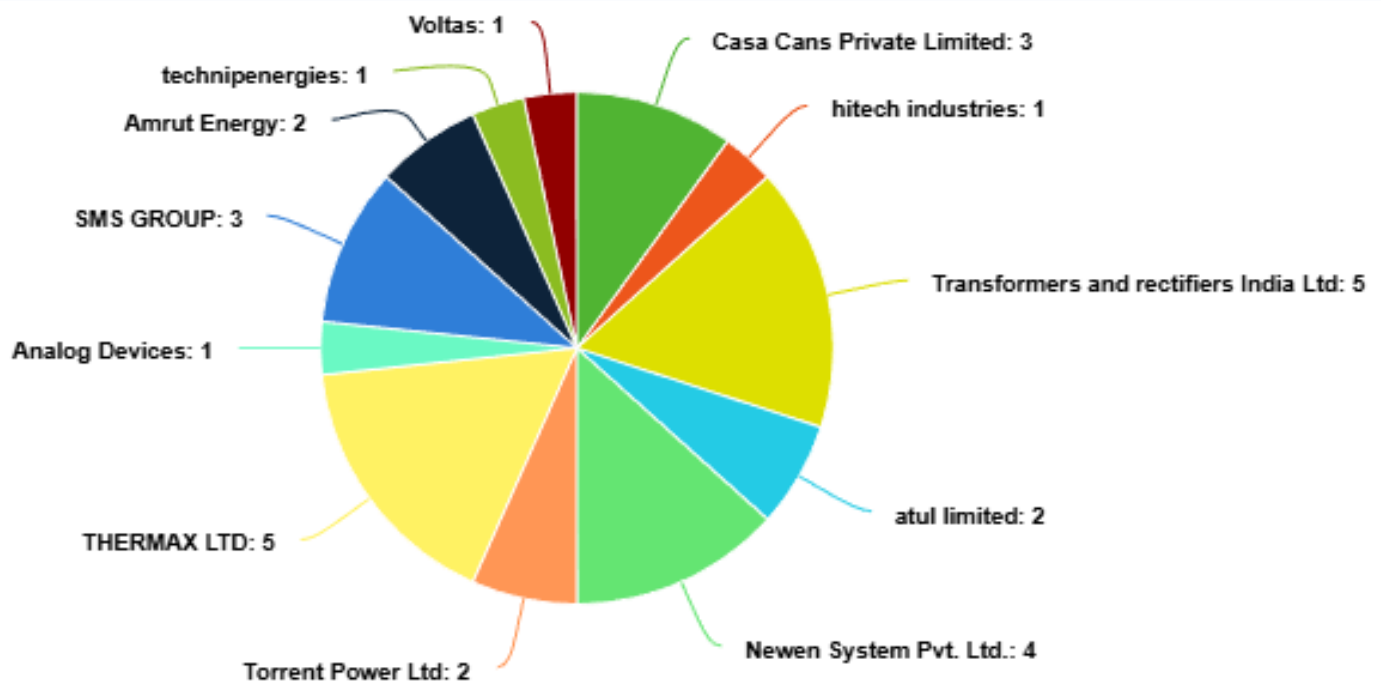
EVORA Motorsports Club is a student-driven motorsports and engineering initiative built on the belief that racing is the ultimate classroom. Our vision is to create a legacy-driven platform where passionate students transform theory into performance by designing, building, and racing high-performance go-karts from the ground up.

The club's motive goes beyond competition. EVORA exists to develop engineers, leaders, and innovators who understand teamwork, accountability, and real-world problem solving. From chassis design and powertrain optimization to marketing, sponsorship, and race strategy, members gain hands-on exposure to every aspect of a professional motorsports team.

We aim to represent our institution on national platforms while nurturing a culture of discipline, curiosity, and excellence. EVORA Motorsports Club is not just about speed, it's about vision, resilience, and building something that outlives a single batch of students.



STUDENT PLACEMENT AND INDUSTRY CONNECT



OUR MAJOR RECRUITERS





NBA ACCREDITED!

Celebrating Excellence in Education



NBA

NATIONAL BOARD
OF ACCREDITATION

The Mechanical Department, VGEC

proudly declares that it has been
accredited by the
NATIONAL BOARD OF ACCREDITATION
under the
OUTCOME BASED EDUCATION(OBE)
framework. **VALIDITY: 31 DEC 2028**

CLOSING MESSAGE

The Mechanical Engineering Department at Vishwakarma Government Engineering College steadily advances with a well-defined mission — to develop engineers who are creative, professionally competent, and driven by research. By focusing on faculty enrichment, student accomplishments, industry partnerships, and academic research growth, the department consistently strives to prepare a new generation of mechanical engineers who are equipped to meet future challenges.

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

Faculty Coordinator

Prof. Swapna A. Pawar

Student Coordinator

Bhavadip Vagh
220170119104

Student

Nisarg Islaniya
Arpit Ashok Bendre

Tirth Makwana
Shwetanshu Shah

Vansh KO Patel
Hariom Raval