



MECHANICAL

JULY-DECEMBER 2023 NEWSLETTER



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Vision & 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

I am delighted to share our department's accomplishments from July to December 2023. We continued our momentum with a strong focus on student innovation and industry engagement. The highlight was the VGEC Rocketry Team's new record—a 143m rocket launch on September 1, 2023. The team has now set a goal to reach 200m and successfully conducted a hands-on rocketry workshop for 90 students. To further strengthen industry linkages, we organized visits to Pioneer Engineering Services and CIPET, Ahmedabad for our students. Our faculty also continued their professional development by attending training programs on subjects like Electric Vehicles and Project Management. I thank all our collaborators for their invaluable support. We look forward to building on these successes and continuing our commitment to excellence

Dr. P K Brahmhatt



VGEC ROCKETRY TEAM

VISION

Our vision is to revolutionize rocketry through innovation and teamwork. We aim to break barriers and reach new heights, setting new standards in the field

MISSION

- 1) To become the center of aerospace learning and passion where students can come to get core hands on learning experience
- 2) To become a name in Indian amateur rocketry circles where we are referred to as pioneers of the industry in India

WORKSHOP ON ROCKET

16th September, 2023 Workshop on Rockets and Subsystems Conducted a 7-hour offline workshop introducing students to rocket systems at the model scale. The event covered propulsion, structure, avionics, and recovery, with practical demonstrations for each. Over 100 students attended, gaining curiosity, insight, and motivation to pursue amateur rocketry and build their own model rockets.

Student Achievements

VGEC Rocketry Team, Mechanical Department has achieved a new feat of launching a rocket to 143m height on 01 September, 2023 . Team was able to beat its own record of 100m launch which was recorded in the last quarter. This accomplishment has inspired our team to set a goal to achieve 200m height in the next quarter.

DEPARTMENTAL ACTIVITIES



On 16th September 2023, the Department of VGEC, in collaboration with the VGEC Rocketry Team, organized a Hands-on Workshop at M Block, VGEC, Chandkheda. The workshop, which witnessed the participation of 90 students from various departments and colleges, aimed to provide practical insights into the fundamentals of rocketry.

The VGEC Rocketry Team shared their expertise on rocket propulsion, structural systems, avionics systems, and 3D printing through engaging explanations and live demonstrations. The event concluded with certificate distribution and a live rocket launch in front of all participants. The workshop was coordinated by Prof. Swapna Pawar (Faculty Coordinator) and Pavitra Patel (Student Coordinator), leaving participants inspired with the thought-provoking message by Pavitra Patel: “Is sky even the limit?”



Department organised the industrial visit for their students on 14th and 15th September, 2023, at Pioneer Engineering Services, Ahmedabad and Central Institute of Petrochemicals Engineering & Technology (IPT), Vatva, Ahmedabad. The main objective of the visit was to make students explore new technologies and automation in the domain of Manufacturing Technology. 35 students on each day visited both the industries.

Faculty Coordinators: Prof. R.P.Vyasa,
Prof. D.S.Mehta

FDP attended by faculty

Prof. R P Vyasa and Prof. V K Patel attended one week training Alternate fuels and Electric vehicle during 18-23 December,2023 at LDCE, AHMEDABAD

Prof. D S Mehta attended 8 week training Project Management: Planning, Execution, Evaluation and Control during July - Sept 2023 at NPTEL, MOOC (IIT, Kharagpur)

Prof. S S Patel and Prof. S A Solanki attended one week training Train the Trainer Program-Automotive systems with Sensors 30 Oct-3 November,2023 to at i-ACE Gandhinagar

Prof. M N Parmar attended one week training on Advance Padagogy attended during 17-21 July, 2023 at NITTTR, Ahmedabad

Prof. A A Pujara attended one week training on Patent Drafting, Filling and IP Commercialization during 11-16 December,2023 at CTE, Gandhinagar

YOUNG MINDS

Dev Shah, 5 th Sem Mechanical. Member, VGEC Rocketry Team

Knowledge is a very powerful thing, and sharing that knowledge with others only increases and empowers it.

Let me explain. As a part of the VGEC Rocketry team for over a year now, I have learnt and gained an immense amount. And not only on the technical side of things. I have learnt how to work in a team, how to manage a team, how to manage time. I have learnt how much of a role passion plays in one's success. I have learnt how to live. Before joining VRT I did not even understand the fundamental difference between a plane and a rocket and it is hard to believe that I am part of the only team in Gujarat that has flown a rocket as high as we have. Being a part of this team has made me realise so many things, most important of which is that knowledge (real knowledge, not the one we get from textbooks but the one we get by understanding concepts) is priceless. And when we conducted a 7 hour long workshop in our college showcasing and teaching to other students what we have learnt about rocketry, it dawned on me that sharing this knowledge only sparks the curiosity of a 100 more individuals who will carry the baton further by themselves and on their own paths.

Leading to who knows how many new innovations and inventions that change the world. In a nutshell, knowledge multiplies when it is shared. Being a part of this team has changed my life for good or I would still have been limited to assignments and submissions and never have realized my true potential, never have learnt how to dream and certainly never have learnt how to achieve those dreams. You know what they say; the first step in achieving your dreams is to have them.

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, industrial collaborations, and research excellence, the 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

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

Student Coordinator

Bhavadip Vagh
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Student

Tirth Makwana Arpit Ashok Bendre
Shwetanshu Shah Nisarg Islaniya

Vansh KO Patel
Hariom Raval