



January-June 2022



Mechanical Department 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.
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From the HOD's desk

Upon joining the institute, my core motive was to establish a truly student-friendly environment within the department. This past half-year, we have collectively put significant effort into arranging technical workshops, seminars, and expert talks to ensure the overall development of our students and enable them to gain knowledge well beyond the syllabus.

We successfully conducted specialized training programs, including the two-week, 80-hour Ansys Software Training in collaboration with CIPET, Vatva, and a hands-on workshop on Prototyping for Product Development Using 3D Printing. These targeted programs demonstrate our unwavering commitment to providing access to cutting-edge industry tools, and we look forward to an even more engaging and productive second half of the year. Through this newsletter, I sincerely thank all experts, speakers, and collaborating industries who generously spared their valuable time for our students.

Dr. P K Brahmabhatt



Research or Publication



- **Dr. Dhaval M. Patel** Published a paper titled “Study the effect of fiber laser parameter on bending stiffness of CoCr stent manufactured by fiber laser” at International Journal of Mechanical Engineering, Vol. 7 No. 1 January, 2022, ISSN: 0974-5823 (SCOPUS INDEX), Page: 5306 – 5315

Number of quality publications in referred/SCI journals, citations, books/book chapters etc for 2022

Sr. No.	Name of Faculty	Title of Paper/Title of Book/Book Chapter (with ISSN/ISBN)	Journal Name/Book Publisher
1	D M Patel	Study the effect of fiber laser parameter on bending stiffness of CoCr stent manufactured by fiber laser ISSN: 0974-5823	Journal: International Journal of Mechanical Engineering Citation: Vol. 7, Issue 1, 2022
2	N S Mehta	A concentrate on customer discernment towards E-VEHICLE in Ahmedabad city ISSN 0974-8946	Journal: Shodha Prabha (UGC CARE Journal) Citation: Vol. 47, Issue 1, 2022
3	P.K. Brahmbhatt	A hybrid fuzzy decision-making trial and evaluation laboratory and multi-criteria decision making approach for successful implementation of supply chain collaboration strategies EISSN: 2949-8635	Journal: International Journal of Mechanical Engineering Citation: Vol. 7, Issue 1, 2022
4	P K Brahmbhatt, S P Patel	Comprehensive review of biodiesel as an alternative fuel for diesel engines ISSN: 1751-5874	Journal: International Journal of Design Engineering Vol. 11, Issue 1, 2022
5	K R Patel	Effect of hybrid nano particles MgO and Al2O3 added water in diesel emulsion fueled diesel engine using hybrid deep neural network based spotted hyena optimization. ISSN :5748-5788	Journal: Heat Transfer (Wiley)Vol. 51, Issue 8, pp. 7976-7994, 2022

Departmental Activities

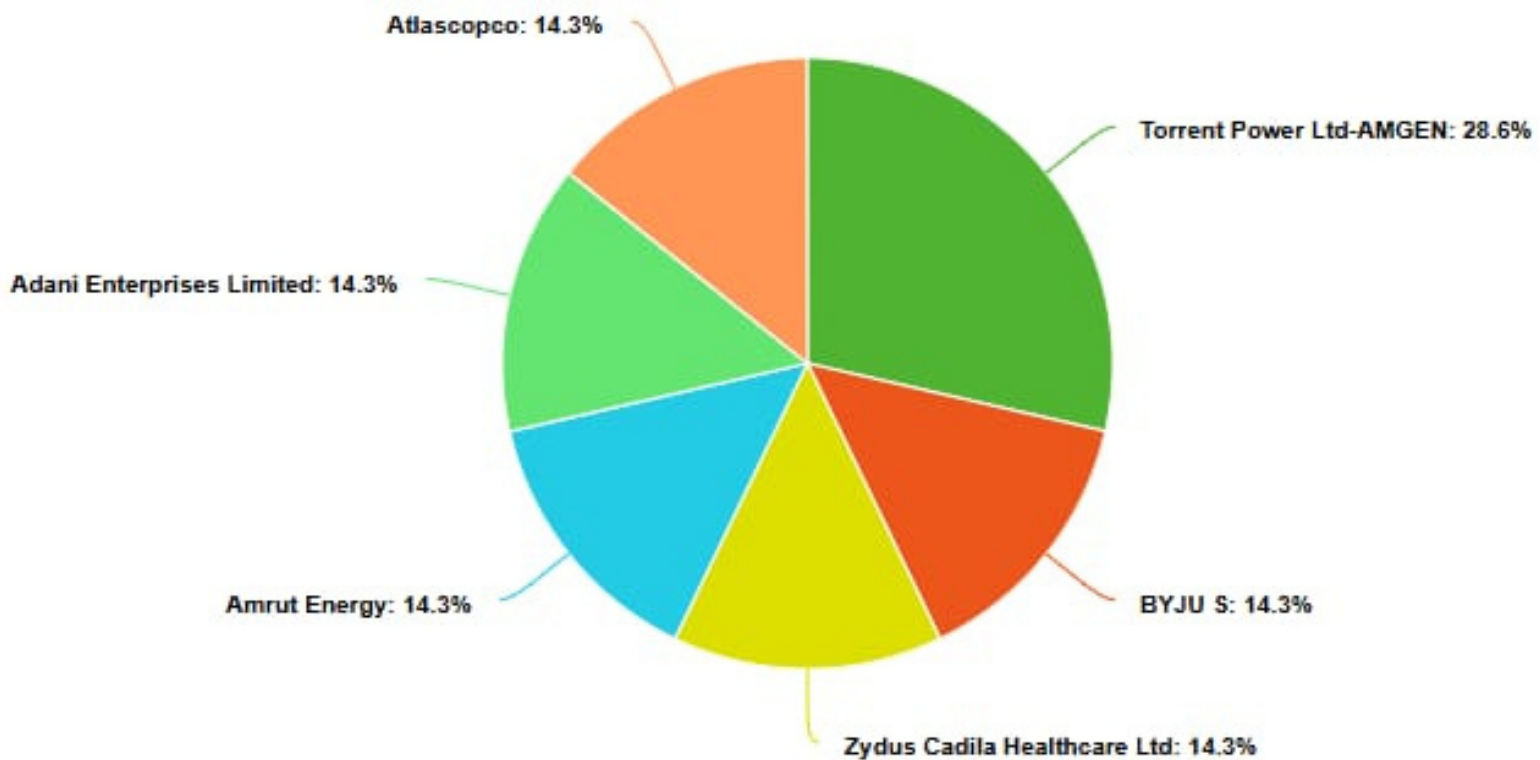
A Two Week Training Workshop on “**Ansys Software**” was organized by the Mechanical Engineering Department under RUSA in collaboration with CIPET, Vatva, Ahmedabad. Objective of workshop was to help students in enhancing their skills in Ansys Software. **Mr. C. Raj Shekhar, Asst. Technical Officer**, CIPET conducted this workshop and his expertise helped students to gain the knowledge about Modelling and FEM in Ansys. This 72 hour program was conducted from 03 January 2022 to 13 January 2022 at CIPET, Vatva, Ahmedabad. Prof. Rupal Vyasa and RUSA team coordinated the event. 13 students participated in the program



A one-day workshop titled “**Prototyping for Product Development Using 3D Printing**” was organized on 11 March, 2022, by Mechanical Engineering Department under **VGEC SSIP** Cell. The main objective of this workshop was to make students have hands on practice of prototyping for product development using 3D printing technology. Different aspects of 3D printing such as model creation, selection of proper materials, importance of G-Code and M-code were explained. The students were trained on 3D slicing software such as Cura. The students learnt the operation of 3D printer and prepared a prototype. Prof. D B Patel coordinated the event.



Student Placement and Industry Connect



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, 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
220170119104

Student

Tirth Makwana Arpit Ashok Bendre
Shwetanshu Shah Nisarg Islaniya

Vansh KO Patel
Hariom Raval