

GOVERNMENT ENGINEERING COLLEGE PATAN  
MECHANICAL ENGINEERING DEPARTMENT  
NEWSLETTER

# TORQUE-TALK

## JAN-JUNE 2025



Editor Team:

DR. H. R. PRAJAPATI  
PROF. R. A. OZA  
PATHAN SOHRANKHAN  
PATEL DISHANK

## MESSAGE FROM THE HEAD OF DEPARTMENT

# Prof. Dr. A B Dhruv

Head of Department  
Mechanical Engineering



Dear Students, Faculty and Stake Holders,

Warm greetings to All.

It is with great pleasure and pride that I address you today as the Head of the Mechanical Engineering Department. As I stand before you, I am reminded of the incredible journey we have embarked upon, pushing the boundaries of innovation, and contributing to the remarkable advancements in the field of mechanical engineering.

Our department, comprising a team of brilliant minds and dedicated individuals, has consistently strived for excellence in education, research, and development. We believe in nurturing the next generation of engineers who will shape the future with their knowledge, skills, and creativity.



The signature is handwritten in black ink. It features a stylized 'A' at the top left, followed by 'B' and 'Dhruv'. Below the name, there is a diagonal line and the text '@TORQUE-TALK'.

GOVERNMENT ENGINEERING COLLEGE PATAN

# ABOUT THE INSTITUTE



What we are...

Government Engineering College, Patan was established in April 2004 with three branches: Computer Engineering, Electronics and Communication Engineering, and Mechanical Engineering each with intake of 60 totaling to 180. The institute was initially functioning in the premises of the K. D. Polytechnic, Patan temporarily. It was shifted to its own newly built-up green premise in August 2008 at Katpur village on Chanasma- Patan road 8 kms before Patan.

Two more branches of Electrical Engineering and Civil Engineering each with intake of 60 were introduced from June- 2009. The intake of Electronics and communication was reduced to 30 and Mechanical Engineering was reduced to 90 from 2020. Currently institute have total intake 330. Each department has well established laboratories, computer centers and well qualified staff.

## VISION

To prepare Human Resources with value based competency for technical advancements and growth of society.

## MISSION

- To deliver technical programs and services to cater the current needs of society and industry.
- Helping industries in solving challenges by means of providing best technical human resources.
- To contribute in sustainable growth of society.

## MECHANICAL ENGINEERING DEPARTMENT

# ABOUT THE DEPARTMENT



Our strong academic performance in high school enables you to pursue a range of educational opportunities. One avenue you'll want to explore is mechanical engineering. Studying mechanical engineering at Government Engineering College Patan will equip you with a broad education, preparing you for a variety of career paths graduation and providing a solid foundation for continuing education. Mechanical engineering encompasses many areas. In short, anything that involves the design and or manufacturing of mechanical, thermal or electronic devices and or processes falls entrepreneurs, chief engineers, astronauts, faculty, physicians and patent attorneys, among other occupations. The field includes activities such as designing, developing, manufacturing, managing, researching and controlling engineering systems and their components.

## VISION

To create a centre of excellence for imparting education in mechanical engineering field to meet the current and future challenges of technological and sustainable development.”

## MISSION

- To build enabling environment for excellent teaching, learning and research in order to produce entrepreneurs and innovators in the field of Mechanical Engineering for sustainable improvement.
- To impart adequate fundamental knowledge, technical and soft skills to students.
- To develop Mechanical Engineering solutions for the problems of industry and society.

## MECHANICAL ENGINEERING DEPARTMENT

## Programme Educational Objectives (PEOs)

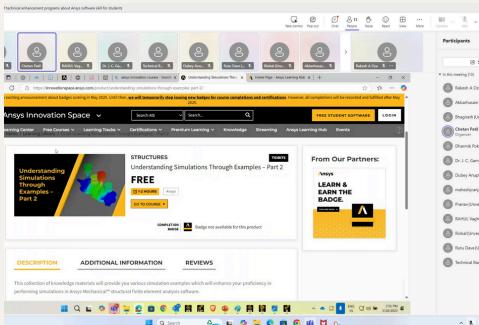
1. To prepare graduates with a technical knowledge of mathematical, scientific, engineering, technology, management, humanities and various other interdisciplinary subjects for a successful career.
2. Graduates will apply the knowledge of Mechanical Engineering to solve real Engineering problems for sustainable development.
3. To inculcate graduates with leadership skills with high level of integrity, Professional personality and ethical values.
4. To equip graduates with modern tools, technology and advanced software's for deliberating engineering solutions.

## Programme Specific Outcomes (PSOs)

- PSO1: Apply the advanced software skills to model, simulate, analyze and optimize Mechanical systems and Processes.
- PSO2: Acquire technical and managerial skills for innovative activities.

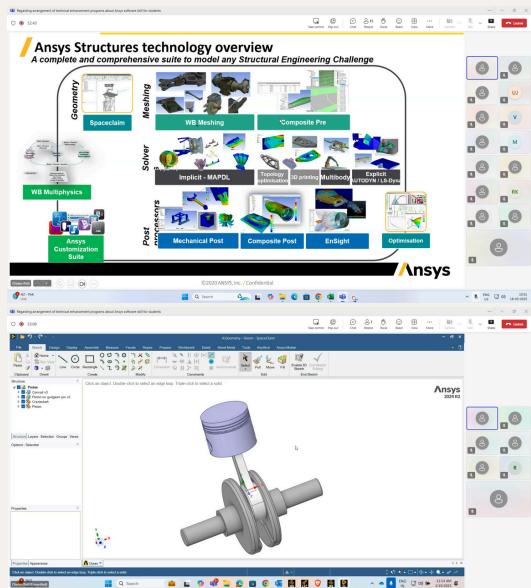
A TWO-DAY ONLINE WORKSHOP

# ANSYS Mechanical and CFD



The Mechanical Engineering Department of GEC Patan, in collaboration with Khodiyar CAD Centre Ahmedabad, organized a two-day online workshop on ANSYS Mechanical and Computational Fluid Dynamics (CFD) from 18th to 19th March 2025. Coordinated by Prof. R. A. Oza, the workshop was designed for Semester 4 and Semester 6 students, as well as faculty members, with the aim of enhancing their understanding of advanced simulation techniques and their applications in engineering.

On the first day, participants explored the fundamentals and applications of ANSYS Mechanical and CFD, while the second day focused on advanced Multiphysics simulations. A total of 37 students actively participated in the sessions, gaining hands-on knowledge of simulation-based problem-solving, which is crucial for real-world engineering challenges. The workshop proved to be a valuable learning experience, bridging the gap between academic concepts and industrial applications.



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# SPOTLIGHT



**Government Engineering College, Patan**

*Proud Moment*

**UPSC  
CIVIL SERVICES  
EXAMINATIONS  
MAINS - 607th Rank**

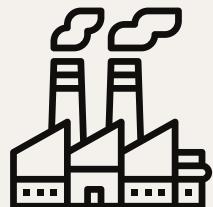
**Mr. Ankitkumar Vaniya**  
*Alumnus, Mechanical Engineering, 2012-2016*

A composite image featuring the logo of Government Engineering College, Patan, on the left. The central text is overlaid on a background photo of Mr. Ankitkumar Vaniya, a young man with a beard, wearing a blue polo shirt and dark trousers, standing with his hands in his pockets. The text "Proud Moment" is written in blue script above the achievement details.

A moment of immense pride for GEC Patan! Ankitkumar Vaniya (Mechanical, 2012–2016, Village: Kungher) has achieved an extraordinary feat by securing 607th rank in the UPSC Civil Services Exam. His journey from campus to civil services is truly inspiring. Hats off to his dedication and perseverance.

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# INDUSTRIAL VISIT



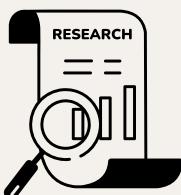
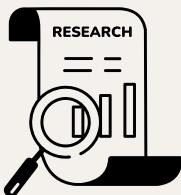
The Mechanical Engineering Department of Government Engineering College, Patan organized an industrial visit to Neptune Industries Limited, Mehsana, to provide students with practical exposure to industrial processes and technologies used in manufacturing. Known for producing machinery related to building construction materials, sanitary ware, porcelain insulators, refractory, and technical ceramics, Neptune Industries offered students valuable insights into real-time operations and professional interactions, effectively bridging the gap between theoretical knowledge and practical application.



An Industrial visit at AMRUT Pvt. Ltd was arranged on 09/03/2025 for the students of B. E. Semester - IV along with 02 faculty members. Around 22 students were participated in the visit. During the visit, students availed practical exposure about functioning of a different machineries. This visit was coordinated by the faculty Dr. H R Prajapati and Prof K H Thakkar - Assistant Professor of Mechanical Engineering Department.

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# RESEARCH AND PUBLICATIONS



Dr. Hitesh Panchal has published a research paper on “Experimental investigation on solar still with nanomaterial and dripping arrangement,” to International Journal of Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Volume 47, Issue 1, 2025. (Tailor & Francis) - Scopus & WoS publication

Dr. Hiren Prajapati has published a research paper on “Experimental investigation on the effect of post-weld heat treatment on intergranular corrosion properties of auto TIG-welded SA213 TP304 grade austenitic stainless steel,” to Canadian Metallurgical Quarterly, The Canadian Journal of Metallurgy and Materials Science, Vol. Issue. April 2025, (Tailor & Francis)

Dr. D. K. Patel guided Jigneshkumar Rammiklal Vala, who enrolled in 2017, on the Ph.D. research work titled “Numerical Investigation to Enhance the Performance of Low Speed Axial Flow Fan Using Tip Recess Vane Technique”, which was successfully completed during the academic year 2025–26.

Dr. D. K. Patel guided Khimsuriya Yogeshkumar Devjibhai, who enrolled in 2020, on the Ph.D. research work titled “Experimental Analysis for Heat Transfer Enhancement in a Solar Air Channel by Using Rotating Spiral-Shaped Baffles”, which was successfully completed during the academic year 2025–26.

Dr. H. N. Panchal guided Harshul Brahmbhatt, who enrolled in 2017, on the Ph.D. research work titled “Using Design Methodology to Develop Mobility Solution for Persons with Lower Body Disability”, which was successfully completed during the academic year 2024–25.

Dr. H. N. Panchal guided Boka Pradeepkumar Narsinhbhai, who enrolled in 2019, on the Ph.D. research titled “Investigation and Performance Analysis of Solar Desalination System with Applications of Coating”, which was successfully completed during the academic year 2024–25.

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# TRAINING ATTENDED



Dr. Mitesh G. Patel has attended one week STTP on “Comprehensive Fire Safety & Disaster Mitigation (GPC\_25\_1) at national fire safety institute Vadodara during 07/04/2025 to 11/04/2025.



Prof D J Parmar has attended a one-week training on “Emerging trends and practices in optimisation and sustainable technology” at NITTTR Ext. Center, Ahmedabad

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# PLACEMENT



As part of the department placement activity, 25 of the 43 final-year students have been successfully placed in various companies and the government sector.

## LIST OF COMPANIES

**adani**

**ESJAY**  
IT SOLUTIONS PVT. LTD.

**AVOCAB®**  
WIRES & CABLES  
BY CHANDRESH CABLES LIMITED

**GUJARAT**  
GUJARAT ABRASIVE & TOOLS

DEPARTMENT

# PLACEMENT



Sr. No.	Student Name	Enrollment no.	Employee Name
1	PATEL YASH BALKRISHNA	200220119016	GUJARAT ABRASIV AND TOOLS
2	CHAUDHARI KUSHKUMAR PRAHLADBHAI	210220119008	BURNER INDIA
3	SHEKH FARDINHUSEN HAMIDBHAI	210220119012	Euro Premium Solar Ltd
4	RAVAL KHUSH DEEPAKKUMAR	210220119022	METALUM CONTECH PVT. LTD.
5	LAKHARA CHETANKUMAR LALCHANDBHAI	210220119023	CMR Green Technologies Limited
6	PRAJAPATI NAKULKUMAR BHARATBHAI	210220119024	Orbit Bearings India Private Limited,
7	KHANJI RAISH ABDULKHALIF	210220119027	ADANI
8	SUTHAR KARANKUMAR ASHVINBHAI	210220119028	ADANI
9	PRAJAPATI ALPESHBHAI ISHWARBHAI	210220119029	METALUM CONTECH PVT. LTD.
10	PRAJAPATI PIYUSH KANTIBHAI	210220119031	Orbit Bearings India Private Limited,
11	KURESHI UVESH JAHIRABBAS	210220119045	GUJARAT APOLLO
12	PATEL ADITYA PRAVINBHAI	210220119047	ADANI
13	CHAUHAN RAJDIPSINH MUKESHsinH	220223119002	Orbit Bearings India Private Limited,
14	Dhruv Sharma	220223119004	AVOCAB BY CHANDRESH CABLE
15	WWW.GECPATAN.AC.IN HINGU OMKUMAR NAreshbhai	220223119005	@TORQUE-TALK AMAN PVT.LTD

Sr. No.	Student Name	Enrollment no.	Employee Name
16	MISTRY NEHAL PARESHBHAI	220223119007	AVOCAB BY CHANDRESH CABLE LTD.
17	PATEL DISHANT BHAVESHKUMAR	220223119013	Orbit Bearings India Private Limited, Rajkot
18	PATEL MESHWABEN MITULBHAI	220223119015	BURNER INDIA
19	PATEL YASHUKUMAR DINESHKUMAR	220223119020	BURNER INDIA
20	PRAJAPATI MIHIRKUMAR PRAVINBHAI	220223119021	GUJARAT ABRASIV AND TOOLS
21	PRAJAPATI NITINBHAI NARESHBHAI	220223119022	Orbit Bearings India Private Limited, Rajkot
22	RAVAL KISHAN ASHOKBHAI	220223119025	TATA GOSAN
23	RAVAL PARTH HITENDRAKUMAR	220223119026	Orbit Bearings India Private Limited, Rajkot
24	THAKOR SACHINJI LAXMANJI	220223119030	Orbit Bearings India Private Limited, Rajkot
25	PATEL HARSH SURESHKUMAR	220223119032	Orbit Bearings India Private Limited, Rajkot

DEPARTMENT SCHOOLAR



# CONGRATULATIONS

ACADEMIC YEAR: 2021 TO 2025 (2025 PASS OUT)

## TOPPER LIST

Rank	Enrollment No.	Name of the student	CPI	CGPA	SPI
1	210220119022	RAVAL KHUSH DEEPAKKUMAR	8.43	8.72	10
2	210220119047	PATEL ADITYA PRAVINBHAI	7.93	8.46	10
3	220223119015	PATEL MESHWABEN MITULBHAI	7.77	7.66	9
4	210220119045	KURESHI UVESH JAHIRABBAS	7.65	8.33	9
5	210220119024	PRAJAPATI NAKULKUMAR BHARATBHAI	7.6	8.04	9
6	210220119033	PRAJAPATI RAHULKUMAR JAGDISHBHAI	7.59	7.94	9
7	210220119006	PATEL DARSH VASANTKUMAR	7.56	7.77	9
8	210220119005	PATEL HET BIPINKUMAR	7.53	7.94	9
9	210220119021	THAKOR ANKIT RAYMALJI	7.49	7.56	9
10	210220119023	LAKHARA CHETANKUMAR LALCHANDBHAI	7.47	7.72	9

# FACULTY LIST



Sr. No.	Name	Qualification	Date of Joining
1	Dr. A. B. Dhruv	PhD Mechanical	24 Feb 1995
2	Dr. D K Patel	PhD Mechanical	17 Nov 2004
3	Prof. D J Parmar	ME Mechanical	11 Feb 2022
4	Prof.C .C .Patel	ME Mechanical	8 Jul 2008
5	Dr. M. G. Patel	PhD Mechanical	5 Apr 2011
6	Dr. S. P. Patel	PhD Mechanical	21 Apr 2011
7	Dr. N. A. Patel	PhD Mechanical	11 Jan 2022
8	Dr. K. V. Patel	PhD Mechanical	12 Jun 2018
9	Prof.K.H.Thakkar	ME Mechanical	6 Oct 2016
10	Prof.B.B.Patel	ME Mechanical	6 Oct 2016
11	Prof.V.K.Patel	ME Mechanical	23 Jun 2016
12	Prof.N.R.Makvana	ME Mechanical	20 Jun 2016
13	Dr.H.N.Panchal	PhD Mechanical	7 Jan 2016
14	Prof.R.A.Oza	ME Mechanical	6 Oct 2016
15	Dr.H.R.Prajapati	PhD Mechanical	11 Jan 2022
16	Prof.C.P.Kadia	BE Mechanical	21 Jun 2011
17	Prof.K.K.Rabari	ME Mechanical	10 May 2012
18	Prof.D.K.Patel	ME Mechanical	21 Oct 2014

## DEPARTMENT MAP



## GROUND FLOOR

