

3<sup>rd</sup> Issue



# NEWS LETTER

"Forging the Future  
with Precision and  
Passion"

JULY-DECEMBER 2025

MECHANICAL ENGINEERING DEPARTMENT

# CONTENT

<b>ABOUT</b>	<b>3</b>
<b>PRINCIPAL'S MESSAGE</b>	<b>4</b>
<b>HOD'S MESSAGE</b>	<b>5</b>
<b>ABOUT MECHANICAL DEPARTMENT</b>	<b>6</b>
<b>MECHANICAL ENGG. DEPT VISION AND MISSION</b>	<b>7</b>
<b>FACULTIES INTRODUCTION</b>	<b>8</b>
<b>RESEARCH EXCELLENCE</b>	<b>9</b>
<b>FACULTIES ACHIEVEMENTS</b>	<b>10</b>
<b>DEPARTMENTAL ACTIVITIES</b>	<b>12</b>
<b>INDUSTRY INSTITUTE INTERACTION</b>	<b>18</b>
<b>PARTICIPATION IN STTP/SEMINAR/WORKSHOP</b>	<b>19</b>
<b>STUDENT ACHIEVEMENTS AND PARTICIPATION</b>	<b>20</b>
<b>MEDIA COVERAGE</b>	<b>28</b>
<b>STUDENT CREATIVE CORNER</b>	<b>29</b>
<b>OUR EMPLOYMENT PARTNERS FOR 2025-26</b>	<b>30</b>
<b>NEWSLETTER TEAM INTRODUCTION</b>	<b>31</b>

# **ABOUT GEC, GANDHINAGAR SECTOR 28**

The Government Engineering College, Gandhinagar (GECG), was established in 2004 to provide higher education in engineering and technology. The institute is recognized by the All India Council for Technical Education (AICTE), New Delhi, and the Institution of Engineers (India). The college is administered by the Directorate of Technical Education, Gujarat State, Gandhinagar, and is affiliated with Gujarat Technological University (GTU).

All the courses at this college are taught according to the syllabus and examination system of GTU

In November 2007, the college moved to its new campus at Sector-28, near GEB, which was inaugurated by Smt. Anandiben Patel, then Minister for Higher and Technical Education. The campus is spread over 33 acres (130,000 m<sup>2</sup>) of land.

# **PRINCIPAL'S MESSAGE**



**Dr. Sweta Dave  
PRINCIPAL, GECG**

Dear Faculty, Staff & Students,

To those who see with loving eyes, life is beautiful. To those who speak with tender voices, life is peaceful. To those who help with gentle hands, life is full. And to those who care with compassionate hearts, life is good beyond all measure!" With a compassionate heart, I invite you to take an initial peek at our organization's vision and values. The Government Engineering College, Gandhinagar (GECG) primarily exists to nurture the untapped potential hidden within young talent. We aim to provide a platform for students to express their creativity and channel their knowledge and youthful, inspirational energy.

At GEC Gandhinagar, the joyful experience of academics combines with the vibrant energy of co-curricular activities to create a holistic and enriching journey for our students and attendees. Our highly qualified faculty and dedicated management ensure that our students are equipped to meet the challenges of the outside world.

GEC Gandhinagar fosters both a strong academic foundation and a practical, market-oriented approach, enabling our students to become knowledgeable and industry-ready. We firmly believe in this vision. Our faculty members are well-qualified and trained to deliver knowledge in an engaging and interactive manner, rather than simply encouraging rote learning.

Finally, I want to emphasize that we focus on the overall development of our students. We also take care of our staff and college resources to provide students with the highest quality of academic value.

I heartily welcome you to join our prestigious institution and become part of our GECG family.

**Dr. Sweta Dave  
Principal, GECG**

# **HOD'S MESSAGE**



**Dr.R P VYASA**

***HOD, Mechanical Engineering Department***

Dear Faculty and Students,

The Department of Mechanical Engineering, established with a vision of excellence in technical education, has consistently shown remarkable progress in academics, research, and placement activities over the years. I am pleased to share that the department is strengthened by a team of experienced, highly qualified, and dedicated faculty members who are deeply committed to teaching, research, and continuous upgradation of technical knowledge. Their academic and industrial experience plays a vital role in shaping competent and industry-ready mechanical engineers.

The B.E. Mechanical Engineering program encompasses core areas such as engineering mechanics, thermodynamics, manufacturing processes, machine design, fluid mechanics, heat transfer, and emerging technologies. The curriculum is designed to provide strong fundamentals along with exposure to the latest advancements in the field of mechanical engineering. Emphasis is placed on practical learning, laboratory work, industrial exposure, and problem-solving skills to ensure that students remain aligned with real-world engineering applications.

**Dr. R. P. Vyasa**  
***HOD, Mechanical Engineering Department***

# **ABOUT MECHANICAL DEPARTMENT**



With reference to the letter from the education department (શિ.વિ. ગાંધીનગર ના પત્ર ક્રમાંક: પરચ/૧૦૨૦૨૨/૩૧૨/સ, તા. ૨૦/૦૪/૨૦૨૨) and the Directorate of Technical Education (વડી કચેરી, ગાંધીનગર ના શેરા ક્રમાંક: ડીટીઈ/એકેડમિક/ક(૪)/કોવિડ-૧૯/૨૦૨૧/૩૨૯૧, તા. ૨૦/૦૪/૨૦૨૨), the Mechanical Engineering Department was established at Government Engineering College, Sector-28, Gandhinagar, with an intake capacity of 60 students, starting from the academic year 2022–23.

Mechanical Engineering encompasses a wide range of areas, including Energy, Fluid Mechanics, Dynamics, Combustion, Vibration, Design, Manufacturing processes, Systems Modeling and Simulation, Mechatronics, Robotics, Mechanics of Materials, Rapid Prototyping and Composites.

It deals with all aspects of the conversion of thermal energy into useful work and the machines that make this possible. Mechanical Engineering is often referred to as the 'MOTHER' of all engineering branches due to its foundational importance in the field of engineering.

# Mechanical Engineering Department: Our Vision & Mission

## Our Vision



To produce globally competitive, innovative mechanical engineers.

Graduates will possess core values that benefit both society and the environment.

## Our Mission



Prepare competent engineers who embody core values.



Deliver current knowledge on industry trends and innovations.



Encourage creative thinking to meet societal needs.

Addressing both technological and economic challenges.

\*This is the draft vision and mission of Mechanical Engineering as the branch has been started AY 2022-23.

# Mechanical Engineering Faculties

## DEPARTMENT COORDINATOR



**Dr. R. P. Vyasa**

Department Coordinator

## ASSOCIATE PROFESSORS



**Prof. H. A. Miskin**  
Associate Professor



**Dr. V. J. Chauhan**  
Associate Professor



**Dr. S. S. Patel**  
Associate Professor



**Dr. N. A. Patel**  
Associate Professor

## ASSISTANT PROFESSORS



**Prof. V. N. Modi**  
Assistant Professor



**Dr. K. P. Patel**  
Assistant Professor



**Dr. D. A. Patel**  
Assistant Professor



**Dr. R. H. Patel**  
Assistant Professor



**Prof. S. D. Mali**  
Assistant Professor



**Dr. D. D. Mewada**  
Assistant Professor



**Prof. V. N. Patni**  
Assistant Professor

## INSTRUCTIONAL STAFF



**Mr. J. A. Mistri**  
Instructor

# Research Excellence

# Faculty Patent Publication

Dr. Vanvirsinh J. Chauhan, along with the research team from Indian Institute of Technology Delhi, has been granted an Indian Patent titled “Eco-Friendly and Copper-Free Friction Materials, Brake Pads and Shoes” by the Patent Office, Government of India. The patent (No. 575349) was filed on 24 August 2021 and officially granted on 05 December 2025, recognizing the innovation for its contribution toward sustainable and environmentally friendly braking materials.



# Faculties Achievements



- **Dr. Rupal P Vyasa**

Dr. R. P. Vyasa Organized an expert talk on “From Fraction to Freedom: The Role of Mathematics in Women’s Journey” on 6th October 2025 at C. V. Raman Hall, GEC Gandhinagar.



- **Dr. VANVIRSINH J. CHAUHAN**

Dr. VANVIRSINH J. CHAUHAN paper titled ‘Polyaniline- An Eco-friendly Novel Filler To Replace Copper In Multifunctional Composite Brake Pads’ has been published in the ‘Tribology International (Elsevier)’ in 2025.



- **Dr. N. A. Patel**

Dr. N. A. Patel has initiated the Intelli MECH Student Club at the Mechanical Engineering Department, Government Engineering College, Gandhinagar. The club focuses on CAD, CAM, Automation, and Artificial Intelligence, aiming to bridge conventional mechanical engineering with modern intelligent technologies and prepare students for Industry 4.0.



- **Dr. Kalpeshkumar P Patel**

An Artificial Intelligence-related program was organized at i-Hub on 07/11/2025. Prof. K. P. Patel, attended the program. The session provided valuable insights into recent developments and applications of Artificial Intelligence.

Prof. Kalpesh Patel contributed as a reviewer for an international research journal. In recognition of his academic service, he successfully reviewed one manuscript in the year 2025 for the reputed journal *Scientific Reports*.

# Faculties Achievements

## • **Dr. R.H. Patel**



Dr. Rashmi.H.Patel has successfully completed Doctoral degree from Ganpat University in August 2025. Her research was in the field of Advance Machine Design and her thesis was titled “Investigation of Stress Concentration Factor for Different Polygonal Discontinuities in a Plate”

## • **Dr.D. A. Patel**



Prof. Dixit Patel paper titled ‘A-TIG welding in aerospace industry: mechanisms, parameters, material considerations, optimization strategies, and machine learning integration’ has been published in the ‘Advances in Materials and Processing Technologies journal’ in September 2025.

## **Departmental Activities**

### **1. Intelli MECH Student Club Formation**

Dr. N. A. Patel and Dr. R. H. Patel have initiated the Intelli Mech Student Club, a student-managed technical club under the Mechanical Engineering Department, with the objective of promoting technical skills, innovation, teamwork, and hands-on learning among mechanical engineering students.



# Departmental Activities

## 2. Intelli MECH Student Club - Expert Lecture

Dr. R.H. Patel, Dr. K.P. Patel and Dr. N.A. Patel coordinated a expert lecture on “CFD Basics and Practical Industrial Applications” on date 09/10/2025. There are 40 students are participated in the event. Students of mechanical department have taken advantage of the expert lecture.

GOVERNMENT ENGINEERING COLLEGE, GANDHINAGAR

### Expert Lecture: CFD Basics & Industrial Applications

9th October 2025 | 11:00 AM  
Venue: 8114  
Expert Lecture on:  
CFD Basics and Practical  
Industrial Applications

**Speaker:**  
Mehulkumar L. Patel  
Founder of "Converge  
Engysol LLP"  
16+ Years of Industrial  
Experience

**Jointly Organized by**  
the Mechanical  
Department and  
Intellimech

**Patron |**  
Dr. S.P. Dave  
(Principal, GEC)

**Convener |**  
Dr. Rupal Vyasa  
(Prof. & Head)

**Coordinators |**  
Dr. R. H. Patel,  
Dr. N. A. Patel,  
Dr. K. P. Patel

**Mechanical  
Engineering  
Department**

**INTELLI MECH**  
INTELLI MECH  
MECHANICAL ENGINEERING  
GOV. ENGINEERING COLLEGE  
GANDHINAGAR  
GOV. ENGINEERING COLLEGE  
GANDHINAGAR

### 3. Intelli MECH Student Club - Quiz Competition

The Intelli MECH Student Club successfully organized the Intelli MECH Quiz Competition 2025 on 3rd October 2025, based on Fundamentals of Mechanical Engineering and Coordinated by Dr. N. A. Patel and Dr. R. H. Patel.

## Intelli MECH Quiz 2025: Competition Highlights

### EVENT AT A GLANCE



**October 3rd, 2025**

Official competition date.



### Intelli MECH Quiz Competition 2025

Event by Intelli MECH Student Club on Fundamentals of Mechanical Engineering.



### Event Coordinators

Coordinated by Dr. N. A. Patel and Dr. R. H. Patel.

### PARTICIPATION & RECOGNITION



**28 Students Participated**

From B.E. Mechanical Engineering, Semesters V & VII.



### Digital Certificates for All

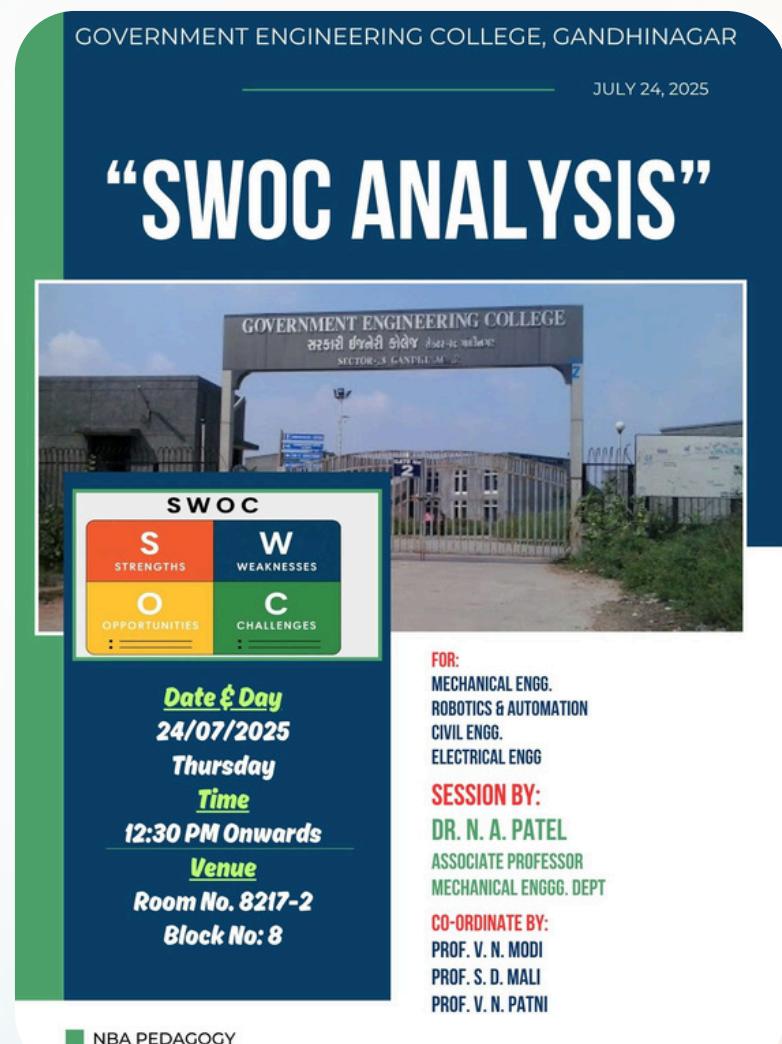
Every active participant awarded a digital certificate.

### MEET THE WINNERS



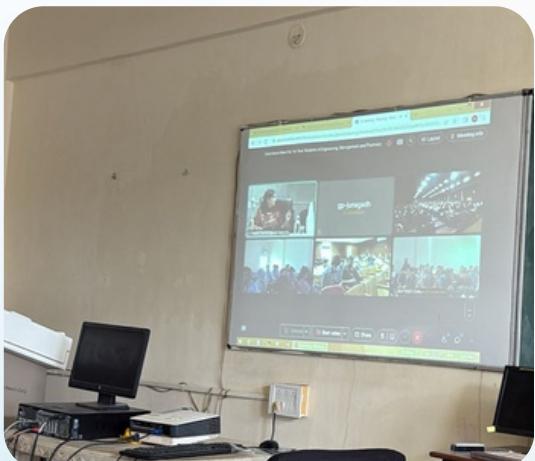
#### 4. NBA Pedagogy

The Mechanical Engineering Department, Government Engineering College, Gandhinagar, organized a SWOC (Strengths, Weaknesses, Opportunities, and Challenges) Analysis Session on Thursday, 24th July 2025, as part of NBA pedagogy initiatives. The session was delivered by Dr. N. A. Patel, Associate Professor, Mechanical Engineering Department. The event was successfully coordinated by Prof. V. N. Modi, Prof. S. D. Mali, and Prof. V. N. Patni.



## 5. First Year Orientation

Gec Gandhinagar, Mechanical Department successfully conducted an Online Orientation Program for 1st Semester students (A.Y. 2025–26) on 7th August 2025. The session, attended by 1st year students . Faculty member has smooth participation, making the program both informative and engaging. Overall, it served as a friendly first step into university life, helping students begin their GTU journey with clarity and confidence



## 6. Field Visit by IITE Students at Our Premises

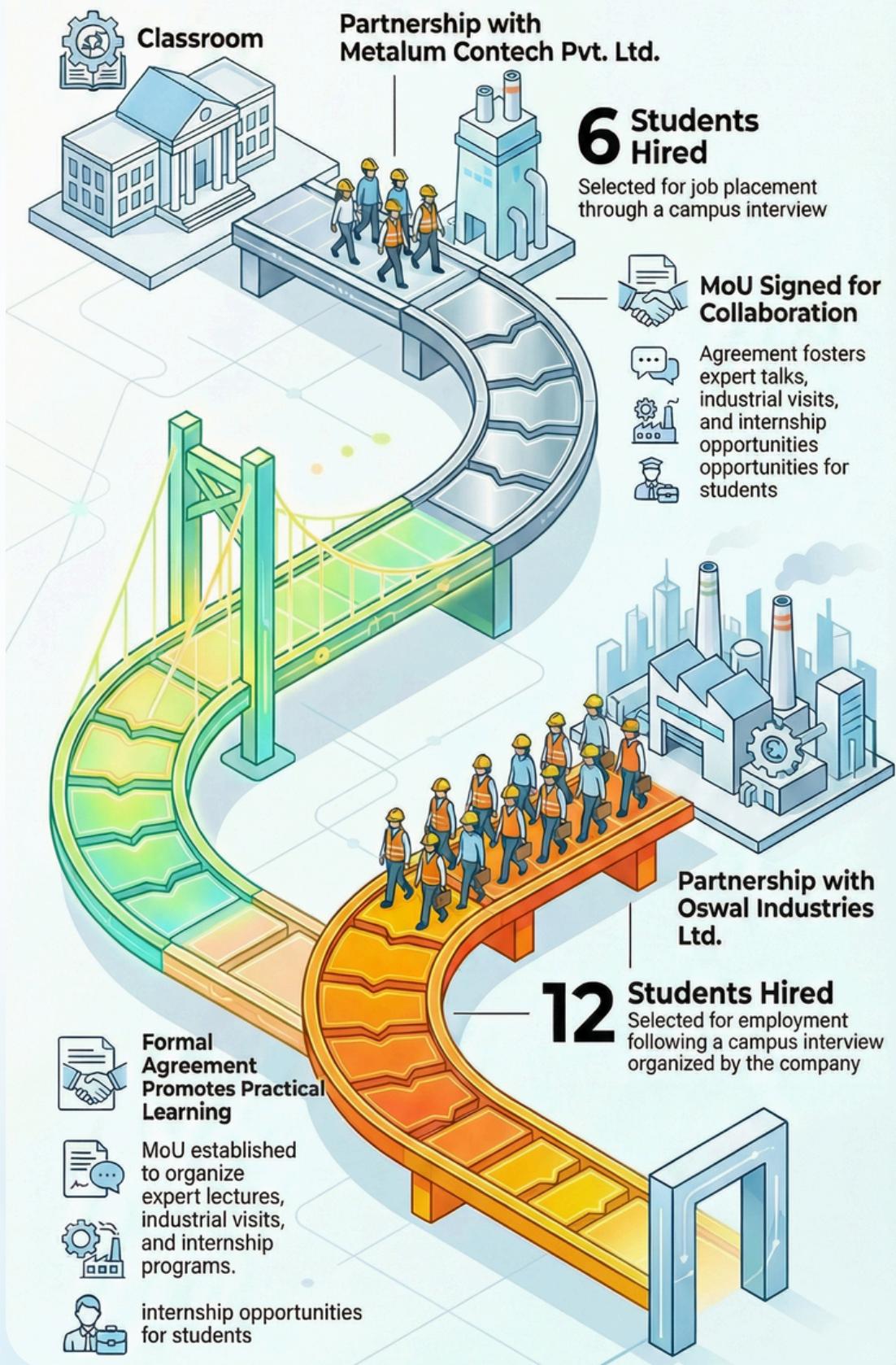
A field visit was organized at Government Engineering College, Gandhinagar on 19/09/2025 under the Training Programme of Mathematics Laboratory Development, organized by the Centre of Education, IITE. The visit aimed to provide students with practical exposure to the application of mathematical concepts across various engineering laboratories. The visit enriched students' understanding by effectively bridging theoretical knowledge with real-world engineering applications.



# Industry Institute Interaction

## Industry Institute Interaction

### Building Bridges: From Classroom to Career



# **Participation in**

## **STTP/SEMINAR/WORKSHOP**

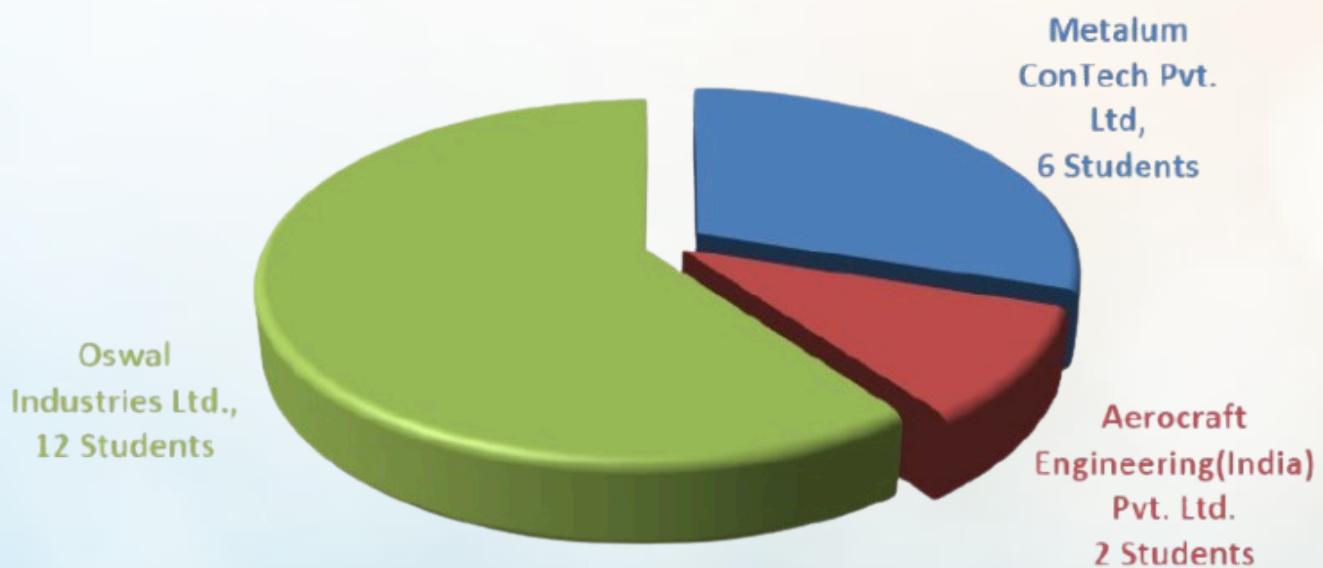
- Dr. Sandip S. Patel has attended online webinar on “LaTeX for Academics-An Introduction to LaTeX” dated 09/07/2025, under the initiative TEERTH organized by Knowledge Consortium of Gujarat, Education Department, Government of Gujarat.
- Dr. Sandip S. Patel has attended an online webinar on “Soft Skills & Holistic Development” dated 17/10/2025, under the initiative TEERTH organized by Knowledge Consortium of Gujarat, Education Department, Government of Gujarat.
- Dr. Kalpeshkumar. P .Patel attended an sttp on “Emerging Trends And Practices In Optimisation And Sustainable Technologies” during 02-06-25 to 13-06-25 at NIIttr Extension center, Ahmedabad.
- Dr. Dixit Patel attended an STTP on ‘Development & Research On Novel Engineering In Drones (Drone-25)’ during 06/10/2025 to 10/10/2025 at IITRAM.
- Prof. V. N. Modi has successfully completed MOOC course on “Advance Machining Process” for August-Oct 2025 intake.
- Prof. V. N. Patni has successfully completed MOOC course on “Advance Machining Process” for August-Oct 2025 intake.

# Students Achievements and Participation

- Placement Activity: From the Mechanical Department, **20** out of 48 seventh-semester students have been placed at L&T, Oswal Industries limited, Metalum CoNtech Pvt. Ltd., and Aircraft Engineering Pvt. Ltd Industry.



## *Training & Placement Activity*



# Students Achievements and Participation

- From the Mechanical Department, 33 seventh-semester students have attended a one day workshop at PDPU, Gandhinagar on 6<sup>th</sup> September 2025.



**SOT** SCHOOL OF TECHNOLOGY **STUDENTS eISHRAE** **NAAC A++** **NBA** **NATIONAL BOARD OF ACCREDITATION** **EDUCATIONAL ENERGY COMMITTEE OF INDIA**

**ONE DAY WORKSHOP ON**  
**BASICS OF I. C. ENGINES AND ENGINE TESTING**  
Organised by  
Department of Mechanical Engineering, in Association with  
IQAC-PDEU and ISHRAE-PDEU Student Chapter

**HIGHLIGHTS OF THE WORKSHOP**

- Basics of I. C. Engine
- Various engine operating systems like turbocharging, cooling etc.
- Engine testing procedure
- Hands-on session on engine testing
- Measurement of various performance parameters under different engine operating conditions
- E-Certificate to all the participants

**6<sup>th</sup> September, 2025**  
**10:00 AM to 05:00 PM**  
**PDEU**

**CHIEF PATRON**  
Prof. S Sunder Manoharan  
Director General, PDEU

**PATRON**  
Prof. Dhaval Pujara  
Director, Sot, PDEU

**CO-PATRON**  
Prof. Rajesh Patel  
HoD, Mechanical Engineering

Scan Here to Register **Free**  
No Registration Fees

Registration Link: <https://forms.gle/3MTAwWhdz3M18> **Coordinators** Dr. Hiren Dave Dr. Jatin Patel (7096528545) (942841542)

Last Date of Registration: 4<sup>th</sup> September, 2025

# **Students Achievements and Participation**

- Akshar Parikh (Enrollment No. 220130119015), a student of Mechanical Engineering, GEC Gandhinagar, successfully participated in the International Experience Program (IEP). The program provided international academic and industrial exposure through a GTU-aligned semester-based program. He completed Design of Machine Elements and Quality and Reliability Engineering, along with a Summer Internship Programme, gaining valuable global academic and practical experience.



# **Swachhata Shapath**

**Date: 08/08/2025**

**Location: Block no 08, Mechanical department, GECG**

On the 8th of August at 11:30 AM, the students and faculty of the metallurgy department took a pledge “Swachhata Shapath” to promote personal commitment to cleanliness.



## **PM Road Show**

**Date: 25/08/2025**

**Location: Nikol**

Students from Semester III and V of the Mechanical Engineering Department and students of other departments of GEC Gandhinagar, along with faculties members actively participated in the Prime Minister's Road Show Event.



# Start Up Conclave 2025

The Department of Mechanical Engineering at GEC Gandhinagar made a strong statement regarding its commitment to innovation and entrepreneurship by ensuring full attendance at the Startup Conclave 2025. On September 23rd and 24th, all students from the 1st, 3rd, and 5th semesters, along with faculty members, actively participated in the two-day event held in Gandhinagar. This grand conclave, which brought together over a thousand startups, innovators, and investors, offered students a critical exposure to India's dynamic startup ecosystem. Their participation provided invaluable, real-world experience, linking their academic knowledge of advanced materials and metallurgical engineering to the commercial and entrepreneurial opportunities within high-growth sectors like defense, clean energy, and deep tech.



# Swedotsav 2025

On 05/12/2015, Prof. K. P. Patel, faculty member of the Mechanical Engineering Department, attended Swedotsav at GMDC Ground, Ahmedabad, along with students. The visit provided students with an opportunity to participate in and experience cultural activities, promoting social awareness, teamwork, and holistic development beyond the classroom.



# Tree Plantation Drive

Date: 05/07/2025 and 10/10/2025

Location: Opposite Building No. 03, GEC Gandhinagar, Sector 28

Students and faculty members of the Mechanical Engineering Department actively participated in a Tree Plantation Drive collaboratively organized by the Gymkhana, NSS, and Eco Club. The event offered a meaningful opportunity for participants to contribute to environmental conservation by planting and nurturing saplings on the campus premises, thereby honouring and protecting Mother Earth.



## Media coverage

ઇજનેરી કોલેજમાં વ્યાખ્યાન યોજાયું



સરકારી ઇજનેરી કોલેજ સેક્ટર ૨૮ ખાતે મિકેનિકલ વિભાગ અને સ્ટુડન્ટ કુલબના સંયુક્ત ઉપકરણ મેં ઔદ્યોગિક વ્યાખ્યાનનું આયોજન કરવામાં આવ્યું હતું. જે માં ઉપસ્થિત રહેલા વિદ્યાર્થીઓને નિષ્ણાતો દ્વારા માર્ગદર્શન અપાયું હતું.

# STUDENT CREATIVE CORNER

कमरा खाली था... पर बोल उठा -  
जैसे -  
बिना आँख... दीवार ने देख लिया हो।  
लेकर यादें सभी,  
आईना भी चुप रह गया?  
बात... बीते पन्ने की थी -  
जिसकी लिखावट... बिना क़लम की थी।  
देखकर बातें सभी,  
आईना भी चुप रह गया?  
आवाज़ में... सन्नाटे थे कई,  
कान... गीत गुनगुना रहे थे।  
सुनकर सभी यादें,  
आईना भी चुप रह गया?  
मदहोश रात में... बहती हवा थी,  
जुगनू में... रौशनी समा गई थी।  
जी कर वो सब यादें,  
आईना भी चुप रह गया?  
बात सारी... जान गया,  
यादें सभी... जी गया,  
मौन को... सुन गया,  
फिर भी -  
आईना भी चुप रह गया।



Het Raval  
240133119023

# Our Employment Partners for 2025-26



# Newsletter Team

## Meet the Newsletter Team

### Faculty Leadership & Coordination



**Dr. Rupal P Vyasa**

Head of the Department

Associate Professor leading the newsletter initiative



Newsletter  
Coordinators



**Dr. Kalpeshkumar P Patel**

Newsletter Coordinator

Assistant Professor

**Dr. Rashmi H Patel**

Newsletter Coordinator

Assistant Professor

### Editorial Team & Recognition



Student  
Newsletter  
Editors



**Zala Rajveersinh**

Student Newsletter Editor

ID Number: 230130119051

**Hetarth Patel**  
Student Newsletter Editor  
ID Number: 230130119037

### Special Thanks



**Dr. N. A. Patel**  
Associate Professor  
Recognition given for support.