



MECHAZINE

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MECHANICAL ENGINEERING DEPARTMENT

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L. E. College, Morbi

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HIGHLIGHTS:

◆ *Departmental Activities*

◆ *Industrial Visit*

◆ *Faculty Corner*

◆ *Student Corner*

❖ Departmental Activities

❖ *Mini Project and Poster*

Under the guidance of Dr. A N Dave and Prof. K K Dave, the students of the Sem 4 developed innovative working models as part of the PBL activity for Kinematics and Theory of Machines course. The models included the Geneva Mechanism, Ackermann Steering Gear, Beam Engine, Elliptical Trammel, and various technical charts. This activity provided students with valuable hands-on experience in understanding the principles of machine kinematics. Through these projects, the students demonstrated their technical knowledge, creativity, problem-solving skills, and teamwork while strengthening the link between theoretical concepts and practical engineering applications.



➤ *Technical Presentation*

Under the guidance of Prof. A D Vadaliya and Prof. J M Pujara, the students of Sem 4 delivered technical presentations as part of PBL activity for Mechanical Measurement and Metrology (MMM) course. The presentations covered topics such as functional

requirements, classification of comparators, working principles of mechanical, electrical, pneumatic, and optical comparators etc. This activity helped students improve their understanding of precision measurement techniques while enhancing their technical knowledge, communication skills, presentation skills, and confidence in explaining engineering concepts with practical relevance.



❖ Industrial Visit

❖ *Visit at Kaynes Semicon*



Students of the department participated in an industrial visit to Kaynes Semicon, Sanand, to gain practical exposure to semiconductor manufacturing processes and advanced technologies. Accompanied by Prof. H N Jani and Prof. I B Shah, the students visited India's first semiconductor manufacturing unit, inaugurated by Hon'ble Prime Minister Shri Narendra

Modi on 31/03/2026. As part of the educational tour, the students also visited Science City, Ahmedabad, where they explored a variety of scientific exhibits and interactive demonstrations. The visit provided valuable insights into emerging technologies, broadened their understanding of interdisciplinary engineering applications and enriched their knowledge of science, technology and innovation.

❖ *Visit at Shree Bhagwati Works*

25 students of Sem 4 and 6 visited Shree Bhagwati Engineering Works, Morbi, on 17/03/2026. Prof. K K Dave, Dr. A N Dave and Prof. H D Santoki, accompanied the students. The students explored the company's production facilities, manufacturing processes, and industrial practices, gaining practical exposure to modern engineering operations. The visit also provided an opportunity to interact with industry professionals, helping students understand how theoretical concepts are applied in real industrial environments.



❖ **Faculty Corner**

❖ *Expert Lectures*

- Dr N M Bhatt delivered an expert lecture on 'Alternate Refrigerants' during ISHRAE sponsored one week FDP on Recent Advances in Mechanical Engineering organized by Padm. Dr. V. B. Kolte College of Engineering, Malkapur, Maharashtra on 2/06/2026.
- Dr N M Bhatt delivered an expert lecture on 'Research Methodology' during FDP on Research Methodology, Ethics & AI Tools organized by GTU and NITTTR-Bhopal at RCTI, Ahmedabad Extension Centre on 25/05/2026.
- Dr N M Bhatt delivered an expert lecture on 'An Overview of Solar Energy Technologies' for BE Mechanical Sem 6 students of Institute of Technology, Nirma University on 02/04/2026.

- Dr N M Bhatt delivered an expert lecture on 'Role of Energy, Entropy and Exergy for Thermal System Design and Analysis for BE Mechanical Sem 3 students of Institute of Technology, Nirma University on 25/03/2026.
- Dr N M Bhatt delivered an expert lecture on 'An Overview of Solar Energy Technologies' for BE Mechanical students of GEC, Patan on 29/01/2026.
- Dr. A N Dave delivered an expert lecture on "Recent Advances in CAD/CAM and Artificial Intelligence" at the Department of Mechanical Engineering, Asiatic Institute of Science and Technology on 07/03/2026.



- Dr. M B Vaghela delivered two expert sessions on "Program Introduction, Objectives, Understanding the Gujarat Entrepreneurial Ecosystem" and "Business Idea Generation: Creativity & Innovations" during the Entrepreneurship Development Program for college students. The program was organized by the Entrepreneurship Development Institute of India (EDII), Ahmedabad, at Lukhdhirji Engineering College, Morbi, from 16th to 20th February 2026.



❖ *Faculty Achievement*

- Dr N M Bhatt published a research paper titled 'A novel closed-loop evacuated glass tube collector-assisted solar distiller with secondary fluid circulation for scale-free operation' in Solar Energy (IF:7.9), DOI: <https://doi.org/10.1016/j.solener.2026.114821>, Accepted on 24/06/2026.
- Dr N M Bhatt published a research paper titled

‘Performance assessment of a novel large-scale evacuated glass tube–assisted solar-driven desalting system for sustainable water purification’ in Separation and Purification Technology (IF:4.3), DOI: <https://doi.org/10.1016/j.seppur.2026.138727>, Accepted on 30/05/2026.

- Dr N M Bhatt published a research paper titled ‘Performance assessment of a mixed-mode solar-thermal dryer innovative solution for reducing carbon footprint and sustainable drying’ in Journal of Thermal Analysis and Calorimetry (IF: 4.1), DOI: <https://doi.org/10.1007/s10973-026-15477-5>, Accepted on 18/03/2026.
- Dr Manoj B Vaghela and Hitesh Bohra (180313119004) were granted an Indian Patent for "Lakh Seal Gun" (Patent No. 584557) on 24/03/2026.
- Dr N M Bhatt conducted academic inspection of GEC Bhuj, GP Bhuj and GP Jamnagar during month of March 2026 as the TIIM manual 2018 of CTE.
- Dr N M Bhatt is appointed as a member of board of studies of Mechanical Engineering at Kadi Sarva Vishwavidyalaya for a period of three years from 12/06/2026.
- Dr N M Bhatt is appointed as a member of a committee formed by GTU to review industry-linked proposals.
- Dr N M Bhatt conducted mock visits for NBA accreditation of UG programs of GEC Patan and GEC Modasa in the months of January-February 2026. He was also nominated as DTE representative at both the institutes during expert committee visits.
- Dr N M Bhatt conducted classes of a core courses on Research Methodology for all the research scholars of All Engineering and Computer Science disciplines enrolled in batch 2025 under GTU, Ahmedabad.
- Dr N M Bhatt conducted classes of a core courses on Research and Publication Ethics for all the research scholars of all the disciplines enrolled in batch 2025 under GTU, Ahmedabad.

❖ Faculty Participation

The Annual Sports Week was held from 16/02/2026 to 20/02/2026, with enthusiastic participation from both students and faculty members of the department. Faculty members actively participated in various sports events, reflecting the department's spirit of teamwork

and sportsmanship. In the Chess competition, Dr A N Dave and Prof A D Vadaliya participated enthusiastically. In the Table Tennis event, Prof. D B Patel, Prof J H Solanki, and Prof A D Kalani represented the department, with Prof. D B Patel securing the First Position. The event promoted a healthy competitive spirit, strengthened camaraderie among faculty and students, and highlighted the importance of sports alongside academic excellence.



❖ Faculty Training

- Dr N M Bhatt participated in FDP on ‘Exploring Research Opportunities and Impactful Research’ conducted by LDCE Ahmedabad during 4th to 8th May 2026.
- Dr N M Bhatt attended 3rd research supervisor meet 2026 organized by GTU on 31/01/2026
- Dr N M Bhatt participated in two days conference on ‘Bhartiya Gyan Parampara: Scientific Technical Development in Engineering Domain from Ancient to 21st Century organized by GTU on 5 & 6/06/2026
- Dr N M Bhatt attended a one-day Research Park–related Sensitization Program organized by CTE, Gandhinagar on 29/04/2026 at KCG, Ahmedabad
- Prof D B Patel, Prof A D Vadaliya, and Dr R N Makadia successfully completed a two-week Industrial Training at Jyoti CNC Automation Ltd., Rajkot, from 8th to 22nd June 2026.
- Prof J H Solanki, Dr C A Maradiya, and Dr M B Vaghela successfully completed a two-week Industrial Training at Suzlon Energy Ltd., Padhdhar, Bhuj, from 1st to 15th June 2026.

❖ Student Corner

❖ Students Participants

- Students of the department actively participated as cultural performers, whose enthusiastic performances added vibrancy to the event and showcased their creativity, teamwork, and dedication. The department proudly acknowledges the contributions of Tejas Kamaliya (230310119001), Palak Mangaroliya

(240310119007), Ayush Kaneria (22010119004), Keval Pithwa (230313119017), Sujal Vyas (230313119015), Jaypal Sathaliya (250310119034), Khodiyar Sahil (250313119013), and Sahdevsinh Jadeja (240313119004) for representing the department with enthusiasm and bringing pride to the Mechanical Engineering family. Their active involvement throughout the celebration reflected the department's commitment to excellence, innovation, and holistic student development.



- The students of Sem 5 successfully completed a 15-day Societal Internship from 16th to 30th June 2026 as a part of the NEP 2020 curriculum. Around 36 students participated in the internship and were assigned in groups to various community-based organizations and sectors, including gaushalas, plantation sites, and agricultural farms. Through this experiential learning initiative, practical exposure to societal challenges was provided, fostering social responsibility, teamwork, and an understanding of sustainable community development.

❖ *Student Achievement*

- Manish Vaghela (160313119015) and Dr Manoj B Vaghela received an Indian Design Registration for "Prefilled Toothbrush" (Design Registration No. 474904-001) on 15/01/2026.
- Manish Vaghela (160313119015), Dr Manoj B Vaghela, and Ankit Shukla (160313119001) received an Indian Design Registration for "Prefilled Razor" (Design Registration No. 474905-001) on 2/02/2026.
- Trivedi Rushinkumar J (250313119021) successfully completed the 12-week NPTEL MOOC course on "Product Design and Manufacturing" conducted from January to April 2026.

- Ankit Chudasama (240310119001), Dabhi Hasmukh (240310119003), Kaila Savan (240310119005), Mangaroliya Palak (240310119007) and Patel Ansh (240310119010) students of Sem 4 successfully completed the 8-week MOOC course on "Project Management" from January to April 2026.

❖ *Gold Medals Awarded*

- Mokariya Kuldeep (220313119024) received the Gold Medal for securing overall highest grade in the subjects of Machine Design at the L. E. College Gold Medal Function on 10/01/2026
- Jagad Manan (220313119018) received the Gold Medal for securing the highest CGPA in the BE Mechanical Engineering program at the L.E. College Gold Medal Function on 10/01/2026.



❖ *Developed Model*

A 3-Roller Manually Operated Bending machine was successfully developed as part of the Design Engineering 2B project under the guidance of Prof J H Solanki. The machine provides an economical solution for bending metal sheets, rods, and flat bars without the use of electricity or hydraulic systems. Its simple design makes it suitable for educational laboratories and small-scale workshops.



❖ *Students Internship*

All the students of the final semester, successfully secured internships in various industries to gain valuable industrial exposure. 21 students received stipend in the range of Rs. 5000 to 15000 during the

internships. These internships provided practical industry experience and helped students enhance their technical knowledge, professional skills, and career readiness. Internship details are given below:

Sr no.	Name	Enrollment No.	Company Name
01	Goswami Darshitbharthi K	200310119034	GN Altech Pvt Ltd
02	Aditya Kumar Chaubey	200310119047	Adani Power Limited
03	Punitsingh	200310119066	Jakap Metind Pvt. Ltd.
04	Nangmaithem Dhanaraj Singh	200310119074	Jakap Metind Pvt. Ltd.
05	Devera Vinay Kiritbhai	210310119041	GN Altech Pvt Ltd
06	Adroja Smit Jaysukh	220310119001	Blackpearl Matrices
07	Bambhaniya Santosh N	220310119002	GN Altech Pvt Ltd
08	Kanjariya Karan Dharmendrabhai	220310119005	Windsor Machines Ltd
09	Vadsola Divy Rameshbhai	220310119006	Space Applications Centre (ISRO)
10	Bhardava Jay Narendrabhai	220313119002	GN Altech Pvt Ltd
11	Chudasma Rushik	220313119006	GN Altech Pvt Ltd
12	Domadiya Ayush R	220313119009	G M Engg. Pvt Ltd
13	Kaushal Nanda	220313119028	Amarex metal works
14	Pal Abhishek Vajjnath	220313119031	GN Altech Pvt Ltd
15	Ramoliya Prashant R	220313119033	Windsor Machines Ltd
16	Yadav Dipak Ramsureshbhai	220313119043	GN Altech Pvt Ltd
17	Asodiya Hitenkumar S	230313119002	GN Altech Pvt Ltd
18	Chavda Sudhir Mansukhbhai	230313119003	ORSON Technocast Pvt. Ltd.
19	Jadav Om Narendrabhai	230313119005	Windsor Machines Ltd
20	Joshi Shrey Kalpeshbhai	230313119006	Jakap Metind Pvt. Ltd.
21	Kanjariya Aashish Anil	230313119007	TATA Chemicals Ltd.
22	Ratandeep Singh Chauhan	230313119012	Erectomaint, Jamnagar
23	Siddhpura Meet Mukeshbhai	230313119013	ORSON Technocast Pvt. Ltd.
24	Tank Dhaval Kishorbhai	230313119014	ORSON Technocast Pvt. Ltd.
25	Vyas Sujal Rameshbhai	230313119015	SRD Quality Services Pvt. Ltd.
26	Pithava Keval Bhaveshbhai	230313119017	Jakap Metind Pvt. Ltd.

❖ *Students Placement*

Following Students of the department received placement in various companies.

Sr no.	Name	Enrollment no	Company name (Salary)
01	Goswami Darshitbharthi	200310119034	GN Altech Pvt Ltd (2.64 LPA)
02	Devera Vinay Kiritbhai	210310119041	GN Altech Pvt Ltd (2.64 LPA)
03	Bambhaniya Santosh N	220310119002	GN Altech Pvt Ltd (2.64 LPA)
04	Kanjariya Karan Dharmendrabhai	220310119005	GN Altech Pvt Ltd (2.64 LPA)
05	Vadsola Divy Rameshbhai	220310119006	Electrothermal India Ltd (2.88 LPA)
06	Bhardava Jay Narendrabhai	220313119002	GN Altech Pvt Ltd (2.64 LPA)
07	Chudasama Rushik	220313119006	GN Altech Pvt Ltd (2.64 LPA)
08	Kaushal Nanda	220313119028	Gayatri Metal Works (3 LPA)
09	Pal Abhishek Vajjnath	220313119031	GN Altech Pvt Ltd (2.64 LPA)
10	Ramoliya Prashant R	220313119033	GN Altech Pvt Ltd (2.64 LPA)
11	Yadav Dipak Ramsureshbhai	220313119043	GN Altech Pvt Ltd (2.64 LPA)
12	Asodiya Hitenkumar S	230313119002	GN Altech Pvt Ltd (2.64 LPA)
13	Chavda Sudhir Mansukhbhai	230313119003	GNFC (4.32 LPA and 18 LPA after 3 Yrs)
14	Jadav Om Narendrabhai	230313119005	Windsor Machines Ltd (2.88 LPA)
15	Joshi Shrey Kalpeshbhai	230313119006	GN Altech Pvt Ltd (2.64 LPA)
16	Kanjariya Aashish	230313119007	Electrothermal India Ltd (2.88 LPA)
17	Ratandeep Singh Chauhan	230313119012	GN Altech Pvt Ltd (2.64 LPA)
18	Tank Dhaval Kishorbhai	230313119014	GN Altech Pvt Ltd (2.64 LPA)
19	Vyas Sujal Rameshbhai	230313119015	SRD Quality services Pvt Ltd (3 LPA)
20	Pithava Keval Bhaveshbhai	230313119017	GN Altech Pvt Ltd (2.64 LPA)

❖ *Faculty Editors:*

1. Prof. Amisha D. Vadaliya
2. Dr. Reena N. Makadia

❖ *Students Coordinator*

1. Harshil Dave (240313119003)
2. Palak Mangaroliya (240310119007)
3. Krish Gohel (250313119013)