



MECHAZINE

THE DEPARTMENTAL NEWSLETTER



MECHANICAL ENGINEERING DEPARTMENT

July - December 2024

L. E. College, Morbi

Vol. -7, Issue-1

HIGHLIGHTS:

- ◆ *Departmental Activities*
- ◆ *Faculty Corner*
- ◆ *Student Corner*

◆ *Departmental Activities*

❖ *Bharat Vikash Spath*

Mechanical Engineering Department organized, "Bharat Vikash Spath" event at the department on 7th September, where Dr N M Bhatt, Head of the Department, along with other faculty members, joined the students in taking a pledge. The event aimed to inspire a sense of responsibility and commitment towards the development and progress of the nation. During the ceremony, participants expressed their dedication to contributing positively to society and upholding the values of integrity, unity and service. This collective pledge emphasized the importance of collective effort in nation-building and fostering a brighter future for India. The event was a meaningful occasion, reinforcing the commitment of both faculty and students to work towards the country's growth and development.



❖ *Bharat Elocution Competition*

An elocution competition was organized on 9th September 2024. The event aimed to enhance students' public speaking skills and boost their confidence. Participants were invited to speak on various topics related to current affairs, social issues, and personal experiences. The competition was structured to allow each speaker a set time to present

their thoughts, followed by a brief Q&A session. Judges evaluated the participants based on clarity, content, and delivery. The event fostered a lively atmosphere, encouraging students to express their opinions and engage with one another. Overall, the elocution competition was a great success, showcasing the talents of our students and promoting effective communication skills.



❖ *Slogan Writing and Drawing Competition*

A Slogan Writing and Drawing Competition was organized on the theme "Swachhata Hi Seva" under the guidance of Dr N M Bhatt, Head of the Department on 1st October 2024, total 18 students participated in the event.



The competition aimed to promote cleanliness and environmental awareness. Mr. Vyas Sujal, a 5th semester Mechanical Engineering student, received first place for his impactful slogan: "**Live Life Cleaner, Make Earth Greener.**" Participants were recognized for their creativity and commitment to promoting a cleaner environment.

❖ *Celebration of Constitution Day*

The Mechanical Engineering Department celebrated "Samvidhan Diwas" (Constitution Day) on 26th November 2024 at the main gate of the department. The event brought together students and faculty to honor the significance of the Indian Constitution and its role in shaping our democracy.



❖ *Swachhata Abhiyan*

The Swachhata Abhiyan, or Cleanliness Campaign, was a nationwide initiative launched by the Government of India to promote cleanliness, hygiene, and sanitation across the country. On 19th December, 2024, all staff members conducted the Cleanliness Campaign at the CAD Lab of the Mechanical Engineering Department. Organizing a Swachhata Abhiyan in a CAD lab was considered essential for maintaining a safe, healthy, and conducive environment for learning and work. We believe that by keeping the computer lab clean, everyone could enjoy a more efficient, safe, and pleasant workspace.



❖ *Celebration of World Meditation Day*

The World Meditation Day was celebrated with great enthusiasm on 21st December 2024.



The event brought together both faculty members and students, who actively participated in meditation session promotes the practice of meditation as a way to enhance mental health and well-being.

Lab Upgradation

Mechanical Engineering Department has upgraded its CAD/CAM lab with 24 new, high-performance PCs with 16 GB of RAM and Ryzen 7 5700G processors with Radeon Graphics running at 3.80 GHz.



+ *Faculty Corner*

❖ *Faculties Achievement*

Teachers' Day in India is celebrated annually on 5th September to honor the birth anniversary of Dr. Sarvepalli Radhakrishnan. On this occasion, Gujarat Technological University organizes the Tech-Guru Award Ceremony to recognize outstanding teachers who have made significant contributions to education. This year, the award was presented to Dr N M Bhatt, Head of the Department, in recognition of his exceptional contributions in the field of education.



❖ **Expert Talk**

An expert talk on the "Importance of Intellectual Property Rights (IPR) and Procedures" was delivered by Dr. M.B. Vaghela at the R&D Center of Jyoti CNC Automation Limited in Rajkot on 5th July 2024.



❖ **Faculty Development program**

- Dr N M Bhatt attended 'Nurturing Future Leadership Program' under the aegis of MMTTP, Ministry of Education, and Government of India at IIM Shillong during 25th – 29th November 2024.
- Dr N M Bhatt attended 5 days workshop on 'Train the Trainer Program on Effective Implementation of NEP 2020 in Technical and Professional Institutes of Gujarat' jointly organized by Commissionerate of Technical Education, Gujarat and NITTTR Chandigarh during 14th – 18th October 2024.
- Dr N M Bhatt attended one day seminar on 'Empowering Next Generation Engineers' organized by GTU Ahmedabad and ASME foundation India on 23rd September 2024 at GTU Ahmedabad.
- Prof. H N Jani successfully completed one-week NPTEL-AICTE faculty development program on "Stress Management" funded by the MoE, Govt. of India through MOOCs Mode during 19th August to 13th September 2024.
- Prof. J M Pujara successfully completed one-week STTP on "Transforming Ideas into Reality" during 25th – 29th November 2024.
- Prof. H N Jani successfully completed one-week STTP on "Transforming Ideas into Reality" during 25th – 29th November 2024.

❖ **Industrial Training for Faculty Members**

- Prof. A D Vadaliya and successfully completed two-week Industrial Training at Sanjivani Casting, Rajkot during 23th July – 7th August 2024.
- Prof. R N Makadia and Prof. A D Vadaliya successfully completed two-week Industrial

Training at Accord Vittrified Pvt. Ltd, Morbi during 9th – 23th July 2024.

- Prof. H D Patel successfully completed two-week Industrial Training at Sento Vittrified LLP, Morbi during 15th – 28th July 2024.
- Dr. J M Pujara successfully completed two-week Industrial Training at Global CNC Pvt. Ltd, Rajkot during 15th – 28th July 2024.
- Dr. M B Vaghela successfully completed two-week Industrial Training at Jyoti CNC Automation Ltd., Metoda, Rajkot during 24th June – 6th July 2024.
- Dr. M B Vaghela successfully completed two-week Industrial Training at Singhal Power Presses Pvt. Ltd., Shapar, Rajkot during 15th – 27th July 2024.
- Dr. A N Dave successfully completed two-week Industrial Training at Global CNC Pvt. Ltd Rajkot during 22th July – 3rd August 2024.
- Prof. H N Jani successfully completed two-week Industrial Training at Turbo Bearings Pvt. Ltd, Rajkot during 8th – 20th July 2024.
- Prof. H N Jani successfully completed two-week Industrial Training at Bronze Granito LLP, Morbi during 29th – 11th August 2024.
- Prof. K K Dave successfully completed two-week Industrial Training at Turbo Bearings Pvt Ltd, Rajkot during 8th – 20th July 2024.
- Prof. K K Dave successfully completed two-week Industrial Training at Bronze Granito LLP, Morbi during 29th – 11th August 2024.
- Dr. C A Maradiya successfully completed two-week Industrial Training at Yantrang CNC Automation Pvt. Ltd. Rajkot during 24th June – 6th July 2024.
- Dr. C A Maradiya successfully completed two-week Industrial Training at Kaizen Ferro Cast, Rajkot during 15th – 27th July 2024.
- Prof. J H Solanki successfully completed two-week Industrial Training at Orbit Bearings India Pvt. Ltd, Rajkot during 26th June – 7th July 2024.
- Prof. J H Solanki successfully completed two-week Industrial Training at Global CNC Pvt. Ltd, Rajkot during 15th – 28th July 2024.

❖ **Faculty Contributions in Research and Society**

- Dr N M Bhatt published a research paper titled 'Insights into evacuated glass tube collectors-assisted solar desalination systems: Pathways for large scale applications for potable water provision' in the journal of 'Solar Energy'
- Dr N M Bhatt was appointed as organizing committee member for one day seminar on 'Empowering Next Generation Engineers' organized by GTU Ahmedabad and ASME

foundation India on 23rd September 2024 at GTU Ahmedabad.

- Dr N M Bhatt was appointed as convener of exhibition committee for ‘Celebrating Women Startups and Innovators’ program organized under the aegis of State PMU SSIP and i-Hub PMU on 12th December 2024.
- Dr N M Bhatt was appointed convener of registration committee for 5 days workshop on ‘Train the Trainer Program on Effective Implementation of NEP 2020 in Technical and Professional Institutes of Gujarat’ jointly organized by Commissionerate of Technical Education, Gujarat and NITTTR Chandigarh during 14th – 18th October 2024
- Dr N M Bhatt is appointed as member of board of studies for Mechanical Engineering and allied branches at GTU for a period of 3 years from 19th September 2024.
- Dr N M Bhatt is appointed as member of faculty of engineering at GTU for a period of 3 years from 7th October 2024.
- Prof. R N Makadia has published a research paper titled ‘Statistical Analysis of Industry Scale Up Draft Coal Gasifier Using Response Surface Methodology for Sustainable Development’ in the Journal of Renewable Energy and Sustainable Development. The paper is available online from 14th October 2024.
- Prof. A D Vadaliya has published a research paper titled ‘Influence of Operating Parameters and Rib Convexity on Friction Torque of Taper Roller Bearings’ in the International Journal of Mechanical Engineering (IJME). The paper is available online from 30th November 2024.
- Dr. A N Dave has published a research paper titled ‘Digital twinning of vertical centrifugal casting’ in the journal of Concurrent Engineering: Research and Applications. The paper is available online from November 2024.
- Dr. J M Pujara ,Dr. C A Maradiya, Prof. J H Solanki and Prof. D B Patel have published a review paper titled ‘Investigation on Electrochemical Mechanical Polishing: Review’ in the International Journal of Intelligent Systems and Applications in Engineering (IJISAE). The paper is available online from 3rd May 2024.
- Dr. J M Pujara has published a research paper titled ‘Investigating Deformation and Stress Distribution in Ball Bearings Using Finite Element Analysis ’ in the International Journal of Mechanical Engineering (IJME). The paper is available online from 31th August 2024.
- Prof. J H Solanki has published a research paper titled ‘Assessing the Impact of Industrial IOT on Engineering and Manufacturing: Benefits and

Challenges’ in the International Journal of Intelligent Systems and Applications in Engineering. The paper is available online from July 2024.

- Dr. C A Maradiya, Prof. D B Patel and Prof. J H Solanki have published a review paper titled ‘Developments in Thermal Engineering: A Review on the Strategies of EV Car Battery Thermal Management’ in the Journal of electrical system. The paper is available online from 30th July 2024.

+ Student Corner

❖ **Students Internship**

At the end of the 7th semester, the college organized internship interviews for students seeking opportunities to gain industry experience. This year, 50 students applied for internships, and after a thorough selection process, 6 students were chosen for internships at Echjay Industries Pvt. & GM Engineering Rajkot. The selected students are as follows:

No	Name	En. No.	Company
1	Parth R. Rajyaguru	21031011 9027	Echjay Industries Pvt.
2	Rathod Rajiv	22031311 9037	Echjay Industries Pvt.
3	Rupadiya Dhruv	22031311 9039	Echjay Industries Pvt.
4	Vishal Ranpara	22031311 9035	Echjay Industries Pvt.
5	Ayush Domadiya	22031311 9009	GM Engg. Rajkot
6	Jay Kaviya	22031311 9023	GM Engg. Rajkot

❖ **Editors**

Prof. Reena Makadia
Prof. Amisha Vadaliya

❖ **Student Coordinator**

Sujal Vyas (230313119015)
Ayush Kaneria (22010119004)