Mech at a Glance

(E-NEWS LETTER)

HALF YEARLY MAGAZINE

JAN-JUNE-2023

MECHANICAL ENGINEERING DEPARTMENT GOVERNMENT ENGINEERING COLLEGE PALANPUR





Government of Gujarat GOVERNMENT ENGINEERING COLLEGE PALANPUR

JAGANA, PALANPUR-AHMEDBAD HIGHWAY, PALANPUR - 385011, GUJARAT, INDIA होन नं. (०२७४२) २२०००५, २२०००५ Website: www.gecpl.cteguj.in Email: gec-palanpur-dte@gujarat.gov.in

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Editorial Board

Prof. B. D. Prajapati Student Coordinator:-Prajapati Vishal, Vishwakarma Ritik

Contact us

Mechanical Engineering Department Government Engineering College, Palanpur Jagana, Palanpur-Ahmedabad highway, Palanpur – 385011, Gujarat, India

Vision and Mission of Institute

VISION

"To be a leading technical institute facilitating transformation of human resources into socially responsible engineering professionals for sustainable development"

MISSION

- (1) To achieve academic excellence by developing state-of-the-art laboratories and academic infrastructure.
- (2) To create an ecosystem that promote value based technical education, innovation and entrepreneurship for sustainable development.
- (3) To contribute to industry and society by providing technical and consultancy services.
- (4) To enhance technical competencies of human resources by providing need base trainings and quality improvement programs.

Vision and Mission of Department

VISION

"To produce competent mechanical engineers to fulfil needs of society for sustainable development"

MISSION

- (1) To impart quality technical education in Mechanical Engineering with professional skills.
- (2) To develop linkages with industry for exposure about real life problems and its feasible solution.
- (3) To promote lifelong learning, Innovation and entrepreneurship for sustainable development.
- (4) To assimilate social, cultural and ethical values for betterment of society.

From the Desk of Head of the Department

Mechanical Engineering is the mother of all branches of engineering. Contributions by this branch are enormous in the growth of technology over the centuries. I think it can be best summed up with a slogan from our professional body, the Institution of Mechanical Engineers – 'Nothing moves without Mechanical Engineers'. Whether it is an aircraft, car, train or satellite, mechanical engineers play an important role.

Government engineering college Palanpur (GECPL) is really delighted to express that the mechanical department stands on the strength of experienced and well qualified faculty with excellent laboratory facilities, modern computer clusters and systematically designed curriculum and dedicated faculty members make this department a dynamic place to study. Graduates from the Department of Mechanical Engineering are highly-employable and sought after by many prestigious companies.

Recently department have been accredited by National Board of accreditation, New Delhi (NBA) for the year 2022-2025. An accredited degree means that graduates are deemed to have met part or all of the academic requirements and are in a strong position to move on to achieve professional engineering status after a period of initial professional development in industry.

The Department aims to creating and shaping the new generation of mechanical engineers through their innovative teaching methods and practical knowledge. Department also care for students with an effective mentoring system to counsel them regularly. We are confident; our students will always make us proud from their performances wherever they are.

> Dr. D. M. Patel Head of Department Mechanical

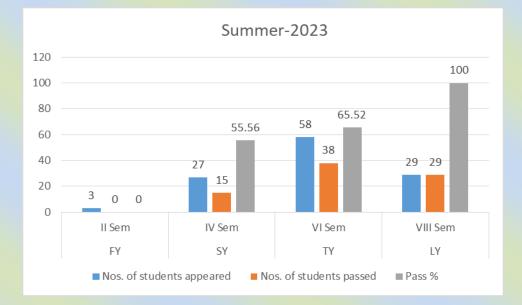


Faculties of Department (As on July 2023)

| Sr. No. | Name of Faculty | Designation | Area of Work | Teaching Experience (Years) |
|------------|-------------------------|-----------------------|--|-----------------------------------|
| 1 | Prof. (Dr.) K. B. Judal | Principal & Professor | Computer aided Design and Manufacturing Unconventional Manufacturing Process | 21 |
| 2 | Dr. D. M. Patel | Professor | Laser processing of materials Micro manufacturing | 22 |
| 3 | Prof. A. B Patel | Assistant Professor | Thermal Engineering | 20 |
| 4 | Prof. V. D. Patel | Assistant Professor | Thermal Science | 20 |
| 5 | Prof. S. K. Dabhi | Assistant Professor | Solar Energy, IC Engine, Auto. | 14 |
| 6 | Prof. A. D. Patel | Assistant Professor | Machine Design | 18 |
| 7 | Prof. A. R. Chaudhari | Assistant Professor | Machine Design | 14 |
| 8 | Prof. P. N. Boka | Assistant Professor | Design Engineering | 16 |
| 9 | Prof. A. K. Patel | Assistant Professor | Advance Manufacturing Techniques | 14 |
| 10 | Prof. G. S. Patel | Assistant Professor | Manufacturing Engineering | 17 |
| 11 | Prof. K. P. Modi | Assistant Professor | Thermal Engineering | 12 |
| 12 | Prof. K. S. Banker | Assistant Professor | Non-Conventional, Composite Materials | 19 |
| 13 | Prof. P. K. Gajjar | Assistant Professor | Welding Metallurgy, Advanced Manufacturing Processes | 12 |
| 14 | Prof. B. D. Prajapati | Assistant Professor | Manufacturing Engineering | 19 |

Result Analysis

| Su | mmer - 2023 | Nos. of students appeared | Nos. of students passed | Pass % |
|----|-------------|---------------------------|-------------------------|-----------|
| FY | II Sem | 3 | 0 | 0 |
| SY | IV Sem | 27 | 15 | 55.56 |
| TY | VI Sem | 58 | 38 | 65.52 |
| LY | VIII Sem | 29 | 29 | 100 |



Topper of Winter 2022 GTU Exam

| | 2 nd Semester | | | |
|-----------|--------------------------|-----------------------------|------|--|
| Sr. No | Enrollment No | Name | SPI | |
| 1 | 220610119005 | Solanki Devang Babubhai | 6.86 | |
| 2 | 220610119003 | Makvana Rakesh Bhikhabhai | 5.50 | |
| 3 | 220610119006 | Parmar Rohitkumar Paragbhai | 5.41 | |

Issue: 02

4th Semester

| Sr. No | Enrollment No | Name | SPI |
|-----------|---------------|--------------------------|------|
| 1 | 210610119007 | Purabiya Maharshi Rajesh | 7.96 |
| 2 | 210610119006 | Prajapati Meet | 7.91 |
| 3 | 210610119012 | Kori Mayankkumar Santosh | 7.61 |

6th Semester

| Sr. No | Enrollment No | Name | SPI |
|-----------|---------------|-----------------------------------|------|
| 1 | 200610119012 | Prajapati Vishalkumar Jayantibhai | 8.80 |
| 2 | 210610119502 | Vishwakarma Ritik Brijkishor | 7.98 |
| 3 | 200610119004 | Panchal Ketan Maheshkumar | 7.83 |

8th Semester

| Sr. No | Enrollment No | Name | SPI |
|-----------|---------------|--------------------------------|-------|
| 1 | 200610119525 | Akshay Kumar Nagraj | 10.00 |
| 2 | 200610119529 | Prajapati Dhruv Sureshkumar | 10.00 |
| 3 | 190610119047 | Prajapati Rajeshkumar Virabhai | 10.00 |

Faculty/staff training/seminar/conferences attended

| Sr. | Name of | Training | Name of | Dur | ation |
|-----|--------------------|--|---------------------|-------------------|------------|
| No | Faculty | Training | Institute/Organizer | From | То |
| 1 | B. D. Prajapati | NBA Accrediatation and Teaching And Learning in Engineering (NATE) | NPTEL | 23-01-2023 | 14-04-2023 |
| 2 | S. K. Dabhi | Blended Learning | NITTTR | 30-01-2023 | 03-02-2023 |
| 3 | B. D. Prajapati | Induction Programme Phase-I | NITTTR | <u>30-01-2023</u> | 10-02-2023 |

| Sr. | Name of | Training | Name of | Dur | ation |
|-----|--------------------|---|---------------------|-------------------|------------|
| No | Faculty | Training | Institute/Organizer | From | То |
| 4 | P. K. Gajjar | Induction Phase-2 | NITTTR | 13-02-2023 | 24-02-2023 |
| 5 | A. B. Patel | Patent Drafting And Filing | Other | <u>20-02-2023</u> | 24-02-2023 |
| 6 | Dr. D. M. Patel | Advanced Industry Powered Faculty Immersion Program | Other | 29-05-2023 | 03-06-2023 |
| 7 | K. S. Banker | Comprehensive Training on CNC Programming & CAD/CAM Integration | Other | 17-07-2023 | 21-07-2023 |

Research Publications

| Name of staff | Conference publications: Title of paper | Name of journal | Month & Year of publication | Volume Issue Page No. ISSN/ISSP No. |
|------------------------|---|---|--|---|
| K. P.Modi | Multi-response optimization of magnetic abrasive finishing process parameters on AISI H13 hot die steel using grey relational analysis | Materials Today: Proceedings | February,2023 | |
| Dr. Dhaval M. Patel | Material removing method for rotational parts with wire EDM machine | Journal Of Aeronautical Materials JAM [230221- 018288], | Vol. 43, Issue- 01, 2023 pp. 131-143 Feb 21, 2023 | ISSN: 1005-5053 |
| Dr. Dhaval M. Patel | Experimentation with the EDM parameter through a full factorial technique and optimization using regression analysis with carbon nanotubes | International Journal on Interactive Design and Manufacturing (IJIDeM) https://doi.org/10.1007/s12008- 023-01263-2 | Publish:18 March 2023 | Springer- Verlag France SAS |
| Dr. Dhaval M. Patel | Optimization of process parameters of ultrasonic | Welding International, DOI: | | Tailor and Francis |

| | metal welding for multi layers foil of AL8011 material | 10.1080/09507116.202 3.2192373 Article: https://doi.org/10.1080/ 09507116.2023.21923 73 73 | | Group |
|--------------|---|--|--------------------|--|
| A. D. Patel | A Novel Methodology for Welding Joint in Complex Structures: 2- Piece Coplanar Cruci-Trap Welded Joint | Journal of Advanced Manufacturing Systems Vol. 22, No. 2 (2023) 279–305 | June,2023 | Print- ISSN- 02196867 |
| K. S. Banker | WEDM Machining And Augmentation Of Aluminum Metal Matrix Composite By Stir Casting Process: A Critical Review. | | November, 2022. | Volume 22, Issue 11, 2022 388-408 ISSN NO : 1006-8341 |

Student Project/ Internship

| Sr. No. | Internship [Name of Company] | Name of Guide |
|------------|--|---------------|
| 1. | Ammann India Private Limited | |
| 2. | Aneri Construction Pvt Ltd | |
| 3. | Aqua Machineries Pvt Ltd. | |
| 4. | Banas Dairy | |
| 5. | Duke Plasto Technique Pvt. Ltd | All Faculty |
| 6. | Elsner Technologies | |
| 7. | Firetech Engineering Solutions | |
| 8. | Gmm Pfaudler | |
| 9. | Google | |
| 10. | Harsha Engineers | |
| 11. | Indian Space Reasearch Organisation (Isro) | |
| 12. | Indo German Tool Room - Ahmedabad | |
| 13. | Indutch Composites Technology Pvt. Ltd. | |
| 14. | Kirti Engineering | |
| 15. | M/S Santosh Engineers & Constructor | |
| 16. | Maheshwari Paper Industry Pvt. Ltd. | |
| 17. | Marg Iti , Rampura (Robotics) | |

| 18. | Marg Iti, Sarjan Foundation | |
|-----|---|--|
| 19. | Maxim Tubes Pvt Ltd | |
| 20. | N.K. Industries | |
| 21. | Patel Industry | |
| 22. | Patels Airtemp (India) Limited | |
| 23. | Space Application Centre(Sac) - Indian Space Research | |
| | Organization (Isro) | |
| 24. | Stream Design Private Limited | |
| 25. | Tenneco Automotive India Pvt. Ltd. | |
| 26. | The One Technologies | |
| 27. | Unity Organic Pvt Ltd | |

Department Activities

Industrial Visit

| Sr. No. | Name of Industry | Date of Visit | Semester |
|---------|----------------------------------|----------------|----------|
| 1 | Indo-German Tool Room, Ahmedabad | 06/04/2023 | 6 |
| 2 | Energy Machines Pvt. Ltd | 06/04/2023 | 6 |
| 3 | Adani (Mundra) Port Visit Report | 13-14 /04/2023 | 6 |





Expert Lecture

- 1. Student Start-up Research and Innovation Festival "Start-Up Acceleration" conducted on 03/10/2022.
- 2. 'A Welding Seminar cum exhibition' at International Automobile Centre of Excellence (iACE), Gandhinagar on 23/04/2023



3. One workshop on **"Advanced Manufacturing"** had organized on 29/04/2023 at Pandit Dindayal Energy University (PDEU) Gandhinagar.

| Sr. No. | Date / Year | Names of resource persons | Back ground industry/ academic /R&D | Topics covered | No. of Beneficiaries | | |
|-----------------|--------------------|---|--|--|-------------------------|--|--|
| Invit | Invited Faculty | | | | | | |
| 1 | 06-02-2023 | M.K.Patel | Academic | SSIP sensitization programme | 45 | | |
| 2 | 06-02-2023 | Mr. Vishal Vadher, Mr. Harvish Upadhyay | Industry | Industrial automation technology | 57 | | |
| 3 | 08-02-2023 | Mr.Amulya Suthar,Prof. V.H.Khokhani | Industry | Urban development through tourism development and its awareness | 44 | | |
| 4 | 21-02-2023 | Mr. Shishir Persai | Academic | "Strategy to crack GATE & Other competitive Exams" | 58 | | |
| 5 | 02-03-2023 | M.L. Patel | Academic | G20 Indian presidency and trunk area. | 36 | | |
| 6 | 2 4-03-2023 | H. L.Chaudhari | Academic | G20 working and its engagement group | 46 | | |
| 7 | 10-04-2023 | Mr. Mukesh Yogi, Mr. Amit Parmar | Industry | Digital Prototyping Using Inventor | 43 | | |
| 8 | 11-04-2023 | Mr. Mrunal | Industry | Career Opportunities For Engineers | 47 | | |
| 9 | 11-05-2023 | Mr. B.M. Patel | Industry | Patent Search | 53 | | |
| Invited Faculty | | | | | | | |
| 1 | 09-03-2023 | Dr. R.H. Chaudhari | Academic | A talk on women empowerment | 30 | | |
| 2 | 24-03-2023 | A. B. Patel | Academic | Patent Drafting And Filing | 48 | | |
| 3 | 26-04-2023 | Dr. C. G. Prajapati | Academic | Trade and investment in G20 countries | 30 | | |

Student Placement

| Sr. No. | Full Name | Company Name | Designation |
|------------|-------------------------------------|---|---------------------------|
| 1 | Prajapati Dhruv Sureshkumar | Ammann India Private Limited | Graduate Engineer Trainee |
| 2 | Patel Omkumar Dilipkumar | Ammann India Private Limited | Graduate Engineer Trainee |
| 3 | Sathavara Jaydip Rameshkumar | Coatch International Technique Pvt. Ltd. | QC Engineer |
| 4 | Ronakkumar Jethabhai Gami | Coatch International Technique Pvt. Ltd. | QC Engineer |
| 5 | Patel Rajkumar Bhogilal | 5th corner overseas | Production Engineer |
| 6 | Vyas Umangkumar Manishkumar | 5th corner overseas | Production Engineer |
| 7 | Bhemsatar Jeeshanbhai Ishvarbhai | Bhavani Tradelink | Sales Executive |
| 8 | Harsh Kumar | Exide Energy Private Limited | Graduate Engineer Trainee |
| 9 | Priyanshu Sharma | Exide Energy Private Limited | Graduate Engineer Trainee |
| 10 | Mevada Apurykumar Chetanbhai | Parle Elizabeth Tools Pvt. Ltd. | Trainee Engineer |
| 11 | Priyansh Panchal | GMM Pfaudler Ltd. | Trainee Engineer |
| 12 | Prince Panchal | N. A. Roto Machines and Modules India | Draftman |
| 13 | Brijeshkumar Rajput | GMM Pfaudler Ltd. | Trainee Engineer |
| 14 | Darshan Limbachiya | GMM Pfaudler Ltd. | Trainee Engineer |
| 15 | Jaydip Sathvara | GMM Pfaudler Ltd. | Trainee Engineer |
| 16 | Ravi Chauhan | GMM Pfaudler Ltd. | Trainee Engineer |
| 17 | Ronakkumar Gami | GMM Pfaudler Ltd. | Trainee Engineer |
| 18 | Uves Kureshi | GMM Pfaudler Ltd. | Trainee Engineer |
| 19 | Bhumesh Parmar | Imagine Powertree Pvt. Ltd. | Graduate Engineer Trainee |
| 20 | Keval Tank | Imagine Powertree Pvt. Ltd. | Graduate Engineer Trainee |