



**GEMS POLYTECHNIC
COLLEGE**

GEAR UP

NEWSLETTER •

Department of Mechanical Engineering

GET IN GEAR WITH MECHANICAL ENGINEER

If You're a Mechanical Engineer Don't Feel So Proud, Because
You Can Repair Everything Except Your Own Heart.
– APJ Abdul Kalam

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Half-Yearly News Letter

October – April 2022, Volume – I, Issue -1

Department of Mechanical Engineering

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From the Desk of the HOD



I am delighted to provide you with a brief update on the latest developments within our dynamic and thriving department. As we navigate the academic landscape with enthusiasm and commitment, I am

impressed by the collective efforts and achievements that define the spirit of our Mechanical Engineering community.

VISION OF THE DEPARTMENT

To empower the students in the field of Mechanical engineering by providing quality education and technical skills favorable for the development of the state and nation.

MISSION OF THE DEPARTMENT

The Department of Mechanical Engineering is committed, **M1:** To deliver fundamental and skill-based education in mechanical engineering through innovative practices in teaching and learning.

M2: To improve employability through Industrial interaction and collaboration.

M3: To inculcate ethical practices for social upliftment and to uphold human values.

PROGRAM EDUCATIONAL OBJECTIVES:

PEO1: To develop technically competitive diploma engineers in the challenging areas of design and manufacturing and its associated industries in the domain of mechanical engineering being involved.

PEO2: To motivate the diploma engineers to improve their academic career by involving in doing higher education and continuous learning.

PEO3: To Possess a professional attitude as an individual and as a team member with consideration for society, professional ethics and environmental factors.

PROGRAM SPECIFIC OUTCOMES:

PSO1: Ability to develop and implement innovative ideas in the area of product development with the help of modern CAD & 3D printing tools.

PSO2: Ability to achieve excellence in the domain of Computer Numerical Control (CNC) operations.

PSO3: Ability to achieve excellence in advanced manufacturing skills for various industrial sectors.

1. Academic Excellence: Our faculty members continue to uphold the highest standards of academic excellence, fostering an environment that promotes critical thinking, innovation, and a passion for learning. The dedication of our teaching staff and the hard work of our students are evident in the quality of education and research emanating from our department.

2. Research and Innovation: The department remains at the forefront of cutting-edge research and innovation. Our faculty's commitment to pushing the boundaries of knowledge is reflected in the diverse range of research projects and publications.

3. Student Achievements: I am proud to acknowledge the outstanding achievements of our students. Their accomplishments in academic pursuits, extracurricular activities, and competitions underscore their dedication and well-rounded development. Our students are not just learners; they are future leaders and contributors to the field of Mechanical Engineering.

4. Future Initiatives: Looking ahead, we have exciting initiatives in the pipeline. From organizing workshops and seminars to fostering interdisciplinary collaborations, we aim to create an enriching environment that nurtures innovation, creativity, and professional growth.

I extend my gratitude to each member of our department for your hard work, dedication, and passion. It is through your collective efforts that the Department of Mechanical Engineering continues to thrive as a hub of knowledge, research, and academic excellence.

Embrace the Journey: Inspirational Quotes

- "Believe you can, and you're halfway there." - Theodore Roosevelt
- "As engineers, we were going to be in a position to change the world – not just study it." - Henry Petroski
- "The only way to achieve the impossible is to believe it is possible." - Charles Kingsleigh
- "You are never too old to set another goal or to dream a new dream." - C.S. Lewis
- "Challenges are what make life interesting and overcoming them is what makes life meaningful." - Joshua J. Marine
- "I can't change the direction of the wind, but I can adjust my sails to always reach my destination." - Jimmy Dean
- "Don't be pushed around by the fears in your mind. Be led by the dreams in your heart." - Roy T. Bennett

Department Activities

Association Event Report:

Webinar on "Mechanical Engineering Design" by Mr. Alugula Manoj Babu, Design Engineer, A Smart Home Solution on 01/10/2021 at 10:00 am at Seminar Hall



Any Government or AICTE Initiatives through the Department:

Department faculties were encouraged to do National initiative for Technical Teachers Training (NITTT) courses.

This is the initiative of the AICTE towards framing and implementing a Comprehensive Training Policy for Technical Teachers.

List of faculties undergoing NITTT courses:

| S.NO | NAME OF THE FACULTY | Faculty Role (Mentors / Inductee Teachers) |
|------|---------------------|--|
| 1. | Nitish Chandra | Inductee Teachers |
| 2. | Sudhir Kumar | Inductee Teachers |
| 3. | Arun Pandian | Inductee Teachers |
| 4. | Vimal Raj B | Inductee Teachers |
| 5. | Eli Yashraj | Inductee Teachers |
| 6. | Jegan Raj | Inductee Teachers |
| 7. | Ravi Kumar Saxena | Inductee Teachers |

▪ Developmental activities in the department

Academic related:

- This Academic year 2020-2021 onwards the files and formats were prepared and monitored as per NBA norms.
- Course Outcome Attainment format was introduced and were followed by all teaching faculties.
- Remedial actions were taken for the students those who got fail marks in the internal assessment.

Faculty Activities

- Mr. Anil Kolli attended a one-day Faculty Development Program on "Emerging Technologies in the Field of Electrical Sciences" at GEMS Polytechnic College on February 24th, 2021. The program provided valuable insights into the latest advancements in the field and contributed to Mr. Anil Kolli's professional development.
- Mr. Anil Kolli actively participated in a three-day Faculty Development Program on "Effective Engineering Teachings in Practice" organized by NPTEL in collaboration with AICTE. The program, held from January to February 2021, enriched Mr. Kolli's teaching methodologies and furthered his commitment to delivering high-quality engineering education.
- Mr. Arun Pandian P actively engaged in a three-day Faculty Development Program on "Effective Engineering Teachings in Practice" organized by NPTEL. This intensive program, spanning four weeks from January to February 2021, enhanced Mr. Pandian's pedagogical skills and teaching methodologies for the benefit of his students.
- Mr. Arun Pandian P participated in a one-day Faculty Development Program on "Emerging Technologies in the Field of Electrical Sciences" at GEMS Polytechnic College on February 24th, 2021. The program provided valuable insights into the latest advancements in the field, enriching Mr. Pandian's expertise for the benefit of his teaching and research.
- Mr. Eli Yashraj Singh participated in a one-day Faculty Development Program on "Emerging Technologies in the Field of Electrical Sciences" at GEMS Polytechnic College on February 24th, 2021. The program provided valuable insights into the latest advancements in the field, enriching Mr. Singh's expertise for the benefit of his teaching and research.

- Mr. Nitish Chandra actively engaged in a three-day Faculty Development Program on "Effective Engineering Teachings in Practice" organized by NPTEL. This intensive program, spanning four weeks from January to February 2021, enhanced Mr. Chandra's pedagogical skills and teaching methodologies for the benefit of his students.
- Mr. Nitish Chandra participated in a one-day Faculty Development Program on "Emerging Technologies in the Field of Electrical Sciences" at GEMS Polytechnic College on February 24th, 2021. The program provided valuable insights into the latest advancements in the field, enriching Mr. Chandra's expertise for the benefit of his teaching and research.
- Mr. Ravi Kumar Saksena actively engaged in a three-day Faculty Development Program on "Effective Engineering Teachings in Practice" organized by NPTEL. This intensive program, spanning four weeks from January to February 2021, enhanced Mr. Saksena's pedagogical skills and teaching methodologies for the benefit of his students.
- Mr. Titus R actively participated in a three-day Faculty Development Program on "Effective Engineering Teachings in Practice" organized by NPTEL. The program, conducted over a four-week period from January to February 2021, equipped Mr. Titus R with valuable insights and strategies to enhance the quality of engineering education.
- Mr. Titus R actively participated in the Orientation Training Program for NITTT Mentors organized by the National Institute of Technical Teachers' Training (NITTT), under the auspices of AICTE in New Delhi. The comprehensive five-day program, from April 19th to April 23rd, 2021, provided valuable insights and equipped Mr. Titus R with the necessary skills to effectively mentor and guide peers in the field of technical education.
- Mr. Vimal Raj. B actively participated in a three-day Faculty Development Program on "Effective Engineering Teachings in Practice" organized by NPTEL. The program, conducted over a four-week period from January to February 2021, provided Mr. Vimal Raj. B with valuable insights and strategies to enhance the quality of engineering education.
- Mr. Vimal Raj. B actively participated in a one-day training program on "Emerging Technologies in the Field of Electrical Sciences" at GEMS Polytechnic College on February 24th, 2021. The program provided Mr. Vimal Raj. B with valuable insights into the latest advancements in the field, enhancing his knowledge and expertise.

Achievements/Success stories

Department wise placement details:

| 2018 - 2021 Batch Placement Details | | | |
|-------------------------------------|-----------------|---------------|-----------------------------------|
| S.NO | Register Number | Student Name | Company Name & Location |
| 1 | 1992518001 | SHRESTH KUMAR | Wind care India Pvt Ltd & Gujarat |
| 2 | 1992518002 | SAFI AHMAD | Wind care India Pvt Ltd & Gujarat |
| 3 | 1992518009 | RAJNISH KUMAR | Wind care India Pvt Ltd & Gujarat |
| 4 | 1992518010 | SAGAR | Wind care India Pvt Ltd & Gujarat |
| 5 | 1992518013 | PANKAJ KUMAR | Tata Motors, Aurangabad, Bihar |
| 6 | 1992518014 | TUSHAR KAPOOR | Higher Studies B.Tech |
| 7 | 1992518015 | SUMIT CHAUHAN | Wind care India Pvt Ltd & Gujarat |
| 8 | 1992518016 | KUMAR GAUTAM | Higher Studies B.Tech |
| 9 | 1992518019 | AYUSH RAJ | Wind care India Pvt Ltd & Gujarat |

Recent technologies

The Impact of Technology in Mechanical Engineering

Robotics is becoming increasingly important in mechanical engineering. They are becoming increasingly sophisticated and capable of performing complex tasks, and they have a major impact on of accuracy and efficiency of building machines.

- Robotics can be used to automate tasks, as well as to create new materials and components.
- Robotics can also be used to improve existing processes and components.
- Robotics can be used to
 - Explore hazardous environments



- perform surgery
- provide companionship
- They can learn and adapt to their environment, making them more efficient and effective.
- Robotic surgery is becoming increasingly common, and robots assist doctors in complex operations.
- For example, The Da Vinci Surgical System provides sophisticated equipment for performing invasive robotic surgery.

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