



Mechanical Engineering Department

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Mech Mirror

Volume 7, Issue 1

Semester wise Newsletter
Odd Term 2024-25 (July 2024 to Dec -2024)

Awards by Faculties of ME

Mr. Naresh W Besekar faculty of Mechanical Engineering had been deputed for PhD at Jadavpur University, Kolkata under AICTE QIP program from the institute in Dec 2020. Mr. Naresh W Besekar has been awarded the Doctorate Degree (PhD) on 20/09/2024 by Jadavpur University, Kolkata.



Dr. R. A. Gadekar, LME worked as Reviewer for reputed SCI Journal “Expert Systems with Applications” Elsevier. Also She was Session Chair at “National Youth Conference on “Revolutionizing Innovation for Sustainable Economy” at Jaipuria Institute of management, Indore. 27/12/2024

Dr. N. W. Besekar worked as a Reviewer for reputed SCI Journal “Journal of Applied Electrochemistry.” Springer Nature.

Awards by Students

Miss Laxmi Nagpur and Miss Bhavana chavhan 3rd Year ME Even Term 2023-24 has secured a 1st position at State Level technical Paper Presentation Competition—2024 held at Gaikwad Patil College of Engineering & Technology , Nagpur.



Mr. Abhay Fulekar of ME final year (ME5I) secured the first position in debate competition on topic "**Artificial Intelligence— Pros or cons**" held by Mechanical Engineering department Government Polytechnic Gondia on 04 -10 - 2024



Page 2 **State level “2 Days Workshop on “Maintenance of Refrigeration System & Equipment’s” ”**

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A state level 2 day hands on workshop on “Maintenance of Refrigeration System & Equipment’s.” under ISTE students’ chapter & Mechanical Engineering Technical Club (METC) was conducted on 23 & 24/10/2024. The program was inaugurated by Dr. C. D. Golghate Principal G P Gondia. He emphasised the importance of Refrigeration and air Conditioning Equipment's maintenance to the budding engi-

neers. In this workshop the participants from various Polytechnics of Maharashtra have attended the programme. 40 Student from the different institute were benefited from this workshop. The experts for the workshop was prop.

Sudhakar Lichade, JBL Air Conditioning, Nagpur. For the successful conduction,



Dr. (Mrs.) Rimalini Gadekar I/C ISTE Student Chapter & Mr. N. L. Lanjewar I/C MECT, coordinated the workshop.

One day Workshop on “Robotics & Automation”:

One day Workshop on “**Robotics & Automation**”: was organised on 13-08-2024. The resource person from BMOS Technologies Pvt. Ltd, Gondia Director, Virendra Bisen was invited and he conducted the workshop. The students from the final year and second year of Mechanical Engineering were benefited by the workshop. The workshop was coordinated by Mr. R.P.Badole, Lecturer in Mechanical Engineering.



Parent Meeting:

Parent-Teacher meet was organized by the department on 23-09-2024 for strengthening the teaching learning process. The parents were made aware about the efforts taken by the faculties to improve the learning process. Various practical step's were demonstrated to parents for giving information about the practical facilities available in the department. The parents were made aware about the digitalisation of classrooms and Language Lab under DPDC program. They were also told about the K-scheme implementation and its benefits to the students. The head of department extended the gratitude for their contribution in the NBA process. Mr. Sachin B. Punde, LME has coordinated the event and also presented the vote of thanks.



As every one knows that trees play a crucial role in conserving water and maintaining soil health. By planting more trees, it will contribute to global reforestation efforts, restoring lost forests, repairing damaged ecosystems and mitigating climate changes. So to inculcate the habit of tree plantation department of Mechanical engineering carried a tree plantation drive on 15-08-2024 in the institute campus and planted over 30 trees of different species of fruits & flower. The event was carried out under METC, coordinated by Mr. Y. P. Nimje, and Mr. N.L.Lanjewar , Lecturer in Mechanical engineering.



One day Awareness Program on 1. Cyber Security 2.Hit & Run 3.POCSCO Act:

One day Awareness Program on 1. Cyber Security 2.Hit & Run 3.POCSCO Act was organized on 22-10-2024. Following experts were present for guidance., 1.Mr. Sanjay Marwade, Head Constable, Cyber Cell, Gondia

2.Mr. Rahul Patil, PI, Traffic Police, Gondia

3.Adv. Manjulata Chaturvedi, Lawyer, Gondia

The students from Mechanical Engineering were benefited by the Awareness Program .

The Program was coordinated by Mr. S.B.Punde, Lecturer in Mechanical Engineering.



Sport-2024 at Institute Level

Sport is a high-impact activity. Regular running, cricket etc, are of the most effective forms of exercise for improving your heart strength, boosts your mood, reduces stress, burns calories, improves sleep quality. In order to encourage healthy life in general among amateurs, promoting healthy living through sports activities, especially outdoor, department of Mechanical Engineering organised a cricket match on



13-09-2024 at institute level for the students of Govt. Polytechnic, Gondia. The winner and runner up among the boys & girls were facilitated by giving memento and certificates. The event was coordinated by Mr. N.L.Lanjewar, lecturer in Mechanical Engineering and Mr. Prakash jivtode , sport incharge officer.

Skill Development Training on ' methods of Welding' :



Department of Mechanical Engineering has organized Training on ' methods of Welding' in association with Maharashtra Centre for Entrepreneurship Development (MCED), Gondia on 26/09/2024. The training was organized for the selected persons aspiring for Entrepreneurship from different villages of Gondia District identified by MCED. Faculty of Mechanical engineering and Entrepreneurs of Gondia were resource person. Students of Mechanical engineering were allowed to attend the training and they have been benefited for self employment skill.

Skill Development Training Program in association with UNXT under METC

UNext for enterprise is a leading workforce development organization empowering 500 companies and key start up with skilling solutions. Department has organized skill development training programme in association with UNXT under METC in Oct 2024. The skill development training programme was coordinated by Dr. N.W.Besekar, Training officer and Lecturer in Mech. Engg. Various aspects of skill development and preparing for job recruitment and entrepreneurship have been discussed and incorporated in participants. Mock interview were also conducted by experts by which students strength were boost up. Mr. N.L.Lanjewar, LME and I/C officer METC coordinated event guided the students.



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Development of Laboratories:

Every year department endeavour to develop the laboratories by adding more equipment's to it. This year Mechanical Engineering department was able to add Slitting Saw and Morse Test setup in the Thermal Engineering Lab. The students will be able to utilise the facilities for carrying out activities related to capstone project, Micro project and final project. The equipment of about 7 lac rupees has been added in the year 2024-25.



STUDENTS SHORT TERM TRAINING PROGRAM (SSTTP) on “Electric Vehicle - The emerging Trend”

Mechanical Engineering department has organised Two week SSTTP(Students Short Term Training Program) specifically for final year students of Mechanical Engg. on “Electric Vehicle - The emerging Trend” during 08-10-2024 to 22-10-2024. All the faculties of Mechanical Engineering department have delivered a expert talk. Electric Vehicles is the field that has deliberately grown momentum and it is now shaping the future. The primary objective of the STTP is to provide an opportunity for students to enrich their knowledge in the field of Electric Vehicles to cope up with the rapid changes in the technology. The gap between the academia and industry might be reduced by arranging this workshops and STTP programs.



Industrial Visit:

For giving practical exposure about various technical areas, the department conducting industrial visit of the student to nearby industries. One such visit was organised on 08/10/2024 to “**Himanshu Ice Factory Gondia**”. Students observed the process making ice. They have observed primary and secondary refrigeration cycle , vapour compression refrigeration cycle and their components. The whole process of making ice from water was demonstrated during the visit.



Another visit was arranged at “**Team Ferro Alloys , MIDC,**

Gondia” on 18-09-24. During visit students have observed converting scrap metal into raw material / semi-finished product by the process of melting and casting.



Debate Competition : The primary goal of a debate is for students to generate effective critical thinking into primary issues in the given topic. Debating competitions and public speaking events challenge students to express their thoughts and arguments on a given topic.



These competitions promote effective communication, persuasion, and critical analysis skills. To develop such traits Institute Level debate competition on “Artificial Intelligence—Pros or cons” was organised on 04 – 10-24 by department of ME. The event was

coordinated by Mr. R. P. Badole, LME. The judges were Dr. J. B. Khurpade, Dr. (Mrs) R. A. Gadekar, Mr. R. P. Badole & , Mr. N. L. Lanjewar from Mechanical Engg And Mr. L.N.Raut, Mr. B. S. Deshmukh faculty from Electronics Department. Certificates & trophy were awarded to runner & winner of the competition.

Industry Institute Interaction:

The Industry-Institute Interaction would accrue mutual benefits when a symbiotic relationship is developed between the two systems. The faculties of Mechanical Engineering department has visited **Ma Anusaya Furniture Mfg Co., Mintech Robotics and M/s Balaji Industries, Gondia** in Sept - Nov 2024.



Mr. G. H. Dahole, HOD ME along with the Dr. J. B. Khurpade, Dr. Rimalini Gadekar discussed the different aspect such as Technology Development Transfer, Faculty Student Training, Industry supported lab, CSR Activities, Sharing of Facilities, Inputs in Curriculum development. The General Electric Company, Pune visited institute for Campus placement. During their visit , Personal from G E visited Mechanical Engineering Dept Labs and seen other facilities of the M E Department.



Expert Lectures : For fulfilling the curriculum gap and achieving the program outcomes various experts lectures from different areas as given in the table have been organized by the department of Mechanical Engg. during the Odd semester 2024-25.

| Sr. No | Title of Lecture | Date | Expert |
|--------|---|------------|---|
| 1 | Expert Lecture on "Opportunities & Challenges of Hydrogen Fuel" | 07/08/2024 | Prof. M.N. Gawande, LEE, G.P.Gondia |
| 2 | Expert Lecture on "Important Aspects of Personal Development" | 08/08/2024 | Mr. Shudhhodhan Sahare, Prabudha Vinayati Kalyankari Sanstha, Gondiya |
| 3 | 1 days Workshop on "Robotics & Automation" | 13/08/2024 | Mr. Virendra K. Bisen, Director, BMOS Technologies Pvt. Ltd. Gondia |
| 4 | Expert Lecture on "Personality Development : Success & Let it Go" | 25/09/2024 | Dr. R.R. Gawande, HOD, Applied Mechanics Dept. G. P. Gondia |
| 5 | Expert Lecture on "Methods of Welding" | 26/09/2024 | Prop. Lileshwar F. Bahekar, Maa Anusaya Furniture Industries, Gondia |
| 6 | Expert Lecture on "Personality Development" | 09/10/2024 | Prof. B.S.Vaikunthe, Retd. Lecturer in ME, G.P. Sakoli |
| 7 | Expert Lecture on Advancement in CAD/CAM: ANSYS – Finite Element Analysis | 15/10/2024 | Prop. Mr. Vishal D. Kapse, Director, Momentum Training Center, Autodesk Authorize Training Center, Gondia |
| 8 | Expert Lecture on "Entrepreneurship Development on E – Vehicle" | 17/10/2024 | Prop. Mr. Tejas Kapgate, Kapgate E- Vehicles, Gondia |
| 9 | Expert Lecture on "Motivation for Learning" | 19/10/2024 | Mrs. Surekha Baghel, Psychological Consultant, Life Vision Counselling Center, Gondia |

Mechanical Engineering

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Vision of Program

To serve the Industries and Society by Imparting Technical Knowledge and Skills through the Mechanical Engineering.

Mission of Program

- M1: To impart technical knowledge and professional ethics by using modern engineering tools with supportive facilities.*
- M2: To inculcate ethical values and leadership qualities in societal and environmental context.*
- M3: To impart lifelong learning by modern management tools, experiments and practices.*
- M4: To fulfil industrial and societal needs by establishing interactions with industries and providing solutions through problem analysis, design and development of system.*

PEOs, POs, PSOs of Mechanical Engineering Program

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Provide socially responsible, environment friendly solutions to Mechanical engineering related broad-based problems adapting professional ethics.

PEO2: Adapt state-of-the-art Mechanical engineering broad-based technologies to work in multi-disciplinary work environments.

PEO3: Solve broad-based problems individually and as a team member communicating effectively in the world of work.

PROGRAM OUTCOME (POs)

PO1: Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.

PO2: Problem analysis: Identify and analyse well-defined engineering problems using codified standard methods.

PO3: Design/ development of solutions : Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

PO4:Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

PO5: Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

PO6:Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

PO7: Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological

PROGRAM SPECIFIC OUT-COME (PSOs)

PSO1: Modern Software Usage: Use latest Mechanical Engineering related Software's for simple Design, Drafting, Manufacturing, Maintenance and Documentation of Mechanical Engineering components and Process

PSO2 : Equipment and Instrumentation: Maintain Equipment and Instruments related to Mechanical Engineering

PSO3: Mechanical Engineering Processes: Manage Mechanical Engineering Processes by Selecting and Scheduling relevant Equipment, Substance, Quality Control Techniques, and Operational parameters