



Mechanical Engineering

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Mech Mirror

Volume 4, Issue 2

Semester wise Newsletter
Even Term 2022-23 (Jan 2023 to June-2023)

NBA Accreditation of ME

Accreditation pushes institutions to meet and maintain higher standards in education, in turn, increases trust and confidence in them among the public and boosts accountability.



Department of Mechanical Engineering has been awarded the NBA



accreditation for 3 years i.e 1-07-2022 to 30-06-2025. The experts from IIT and renowned National technical institute visited the department during 09-12-2022 to 11-12-2022 for assessment.

The efforts taken by the department for imparting the quality technical education were highly appreciated by the expert team. The NBA accreditation has provided the opportunity for the GP Gondia students to recognised them and serve International companies in abroad.

Awards by Students



Students of Mechanical Engineering have actively participated in State level Paper presentation held at Tulsiramji Gaikwad-Patil College of Engg. & Technology (Polytechnic), Nagpur. The project guided by Dr. J. B. Khurpade titled “Internet of Things connected X-Y Plotter” was presented. Since the projects designed & developed by the students was innovative and possessed multi-dimensional aspects and also have practical applications also, they secured First Prize in State Level Paper Presentation Competition.



Government Polytechnic Gondia
Department of Mechanical Engineering (NBA Accredited)
and
ISTE students chapter
Organises
A State level One Day Workshop
On
How to Write Technical Research Paper

Resource Person:
Dr. J. B. Khurpade
Mrs. R. A. Gadekar

Who can Attend:
Final Year Diploma
Engineering Students
of All Branches
How to Attend:
This Workshop is
conducted
**In-person/ Offline
mode only (No Fees)**

Day: Saturday 04th March 2023
Venue: Government Polytechnic, Gondia (MS)
Time: 10.00 AM to 1.00 PM

Registration Link:
<https://forms.gle/bS2SdubL34t7BmHZ8>

Prof. R. A. Gadekar Prof. G.H. Dehale Dr. C.D. Gajghate
 Coordinator HOD Principal G.P.Gondia
 Lecturer in Mech.Dept. G.P. Gondia Mech. Engg.Dept. G.P.Gondia

A state level One day workshop on “**How to write research paper**” was conducted under ISTE Student Chapter on 04th March 2023. The program was inaugurated by Dr. P. Sharma Sir. He emphasised the importance of good research paper for the budding engineers. In this workshop the participants exercised one sample research paper based on one of the diploma project. 55 Student from the different parts of Maharashtra state benefited from this workshop. The experts for the workshop were Dr. Jayant Khurpade & Mrs. Rimalini Gadekar, PhD Research Scholar. They put their valuable experience & efforts for the successful conduction of workshop. Mrs. Rimalini Gadekar Inc. ISTE Student Chapter coordinated the workshop.



Expert Lecture:

For fulfilling the curriculum gap and achieving the program outcomes various experts lectures from dif-



**GOVERNMENT POLYTECHNIC,
GONDIA**
DEPARTMENT OF MECHANICAL ENGINEERING
(NBA ACCREDITED)
**“VIRTUAL EXPERT LECTURE
ON THE TOPIC
“FARM EQUIPMENTS AND MACHINERIES”**

DATE: 30th MAY 2023 TIME: 10:00 PM on <https://meet.google.com/hdo-ucqtr-ug>

RAJENDRA PURUSH,
JAIPRAKASH BISEN
SCIENTIST, AGRI. ECONOMICS
NATIONAL RES. RESEARCH INSTITUTE FOR CATTLE, ODISHA
ICAR-NRI (NATIONAL INSTITUTE OF RESEARCH IN CATTLE)
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

DR. CHAKRABARTI
PROFESSOR

DR. S. K. PUNDEKAR
HOD, MECH. ENGG.

BENEFICIARIES – STUDENTS OF MESI (2022-23)

Sr. No	Title of Lec- ture	Expert	Date
1.	Advances in Pneumatics & Hydraulics	Sanjay A. Borikar, Asst. Professor, Mech. Engg. KITS, Ramtek	17-04-2023
2.	Farm Equip-ment & Ma-chineries (Virtual)	Mr. Jaiprakash Bisen, Scientist, Agri Economics, NRRI, Odisha	6-05-2023

ferent areas have been organized by the department of Mechanical Engg. during the Even semester 2022-23.

Parent Meeting:

Parent-Teacher meet was organized by the department on 04-04-2023 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 was demonstrated to parents for giving information about the practical facilities available in the department. The parents were made aware about the proposal of the digitalisation of classrooms under DPDC program. The were also told about the NBA expert visits to institute. 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.



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SSTP on "I4.0" for Students

Developing smart factories provides an incredible opportunity for the manufacturing industry to enter the fourth industrial revolution and it is now shaping the future. Mechanical Engineering department has organised Two week FDTP for students of Mechanical Engineering on "**Industry 4.0**" during the even session. Staff of the Mechanical department have delivered a expert talks.

54 participants form 3rd Year ME have been benefited from this FDTP. The primary objective of the FDP is to provide an opportunity for students to enrich their knowledge in the field of Industry 4.0 to cope up with these rapid changes in the technology. The gap between the academia and industry might be reduced by arranging this workshops and programs. The students were made aware about IoT, Cyber Security, Robotics, Block chain System, Augmented Reality, Big Data Analytics etc.

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E-mail : office.gp.gondia@maharashtra.gov.in फोन नं. 07162-235140 फॅक्स नं. 07162-235136

श. श. तंत्रनिकेतन/सं. अति. विभाग/२०२३/२८
दिनांक- 13/02/2023

Two Week Short Term Training Program
On
"Industry 4.0"
For
Mechanical Engineering Student of G.P.Gondia
Under
ISTE Student Chapter: G.P.Gondia
Organised By
Mechanical Engineering Department GP Gondia

TIME TABLE FOR SSTP ON 'INDUSTRY 4.0'

DAY	DATE & TIME	TOPIC	EXPERT NAME
1	21-02-2023 09 a.m. to 10 a.m.	Overview of Industry 4.0	Shri G. H. Dabole DC HOD
2	22-02-2023 09 a.m. to 10 a.m.	Nano Technology	Shri N. L. Langewar Mechanical Engineering Department, G.P.Gondia
3	23-02-2023 09 a.m. to 10 a.m.	Composite Materials	Shri. Y. P. NIMJE Mechanical Engineering Department, G.P.Gondia
4	24-02-2023 09 a.m. to 10 a.m.	IoT (Internet of Things)	Shri R. P. Badole Mechanical Engineering Department, G.P.Gondia
5	27-02-2023 09 a.m. to 10 a.m.	Artificial Intelligence Applied To Industry 4.0	Shri S. B. Pande Mechanical Engineering Department, G.P.Gondia
6	28-02-2023 09 a.m. to 10 a.m.	Additive Manufacturing	Shri G. H. Dabole DC HOD
7	01-03-2023 09 a.m. to 10 a.m.	Augmented Reality	Mrs. R. A. Gadakar Mechanical Engineering Department, G.P.Gondia
8	02-03-2023 09 a.m. to 10 a.m.	Cyber Security	Dr. J. B. Khurpade Mechanical Engineering Department, G.P.Gondia
9	03-03-2023 09 a.m. to 10 a.m.	Autonomous Robots	Shri S. H. S. Patil Mechanical Engineering Department, G.P.Gondia
10	04-03-2023 09 a.m. to 10 a.m.	Block Chain Systems in IOT	Shri. V. M. Kapse Mechanical Engineering Department, G.P.Gondia

Head of Department (ME)
Government Polytechnic, Gondia

Principal
Government Polytechnic, Gondia

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 to "**Sunflag, Warthi**". Students observed the



process of steel making from the iron ore along with the foundry, casting, rolling etc.

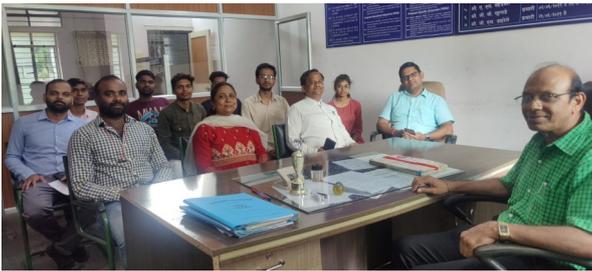
Another visit was arranged at "**Ashok Leyland, Gadegaon Bhandara**". Ashok Leyland is an leading Indian multinational automotive manufacturer of the commercial Vehicle such as truck, bus etc. Student observed the process of various gear manufacturing, hardening and finishing process.

Alumni Meet:

As the regular practice, all the departmental aluminiise were invited on the annual function held yearly. This year i.e. academic year 2022-23 around twenty aluminiise attended and participated in the cultural program and alumni meet. Mechanical engineering faculties had interacted with the alumni and shared their experiences about carrier, job opportunities in various industrial sectors and higher educations. The current year students were also present during the interaction so as to have the relevant information.



Interaction with pass out students



Mechanical engineering department has organised a get-together with the 2019-22 pass out batch students. The students had shared experiences about the department and institute's academic environment which they have received during their diploma tenure.

The students have appreciated the practical facilities and the environment offered by the department. They also praised the T&P policy, efforts and activities taken by the institute about the campus selection by the T&P cell.



MESA Activities

Mechanical Engineering Student Association (MESA) has inaugurated the **“Technical Wall Magazine”** by the hands of Hon. Principal Dr. C. D. Golghate, Government Polytechnic, Gondia along with the departmental faculties. Under this activity students are displaying the advance engineering technical articles on the notice board besides the departmental library. All students of mechanical engineering student have been benefited.



By reading the magazine articles. Every week, each group are displaying their technical articles as per the schedule program framed by MESA committee.

Laboratories Developed by Faculties

Department has developed 4 laboratories in the space provided in the Smithy workshop. These are Mechanical Engineering Measurement, Mechanical Engineering Materials, Industrial Engineering and Quality Control and Project Lab. The students will be able to utilise the facilities for carrying out activities related to capstone project, Micro project and final project.



Campus Placement:



Every year various national & international companies are visiting for the campus selection of mechanical final year students. The campus selection committee are regularly gives visit to the laboratories of the department and the other facilities of the department. In academic session 2022-23 companies and the number of campus selection is as per the table given.

SR. NO.	NAME OF INDUSTRY	TOTAL NO. OF STUDENT PLACED (83)	Student Actually Joined
1	Calderys India, Nagpur	01	01
2	L&T Construction, Chennai	02	01
3	Bajaj Auto, Aurangabad	37	01
4	Sunflag Iron & Steel Company, Bhandara	04	01
5	GE Aviation, Pune	18	01
6	Maxiom Wheels, Pune	06	03
7	Cummins India, Pune	08	01
8	Sigma Engineered Solutions, Pune	05	03
9	John Deer India Pvt. Ltd, Pune	02	—
10	Ceat Tyres, Nagpur	01	01



Industry Institute Interaction:

The Industry-Institute Interaction would accrue mutual benefits when a symbiotic relationship is developed between the two systems. The ultimate aim of this relationship will be the creation of confidence in industry by the Institute which would result industries involving voluntarily the Institute at various stages of its development.

The faculties of Mechanical Engineering department has visited plastic product manufacturing company “**Patel Stationary MFG. Co, MIDC Gondia**” in summer



2023 keeping the aspect of III on following points. The company uses Plastic Injection Moulding, Blow Moulding etc. to create the customised plastic products. The principal Dr. C. D. Golghate & G. H. Dahole, HOD ME along with the faculties discuss the different aspect such as Technology Development Transfer, Faculty Student Training, Industry supported lab, CSR Activities, Sharing of Facilities, Inputs in Curriculum development. The proprietor Mr. Sandeep Patel showed concern about the availability of skilled and semiskilled manpower in the MIDC Gondia. They also showed keen interest in establishing the MOU with the mechanical engineering department. They are also ready to sponsor the final year Capstone Project.

Mechanical Engineering

Mech Mirror

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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 changes.

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