GH raisoni COLLEGE | Engineering and Management Nagpur

An Autonomous Institute, Affiliated to RTMNU, Nagpur
NAAC Accredited "A+" Grade

Department of Mechanical Engineering



MECHNOVA
MAGAZINE
2024-25

Campus : 37-39/1, Shradha Park, Hingna-Wadi Link Road, MIDC, Nagpur - 440016
Email : ghrcem@raisoni.net | **Web :** https://ghrcemn.raisoni.net/

raisoni EDUCATION

Nagpur | Pune | Jalgaon | Amravati | Pandhurna | Bhandara

Department of Mechanical Engineering

MECHNOVA

AY 2024-25

A SNEAK PEEK INSIDE THIS ISSUE.....

Sr. No.	Particulars	Page No.
1.	Vision & Mission of Institute	01
2.	Vision & Mission of Department	02
3.	About the Institute	03
4.	Director's Desk	04
5.	About the Department	05
6.	Head of Department's Desk	06
7.	List of Faculties	08
8.	Topper list	09
9.	MESA Students Member List	11
10.	Major Events	11
11.	Extension Activity	24
12.	Faculty / Student Achievement	25

Vision & Mission of Institute

VISION

To achieve excellent standards of quality education by keeping pace with rapidly changing technologies and to create technical manpower of global standards with capabilities of accepting new challenges.

MISSION

- **MI1 :** Our efforts are dedicated to impart quality and value based education to raise satisfaction level of all stakeholders.
- **MI2 :** Our strength is directed to create competent professionals.
- **MI3 :** Our endeavor is to provide all possible support to promote research and development activities.

Vision & Mission of Department

VISION

To create excellence in the field of Mechanical Engineering by imparting quality education so as to develop our students to be capable of facing technological challenges.

MISSION

- **MI1 :** To impart quality teaching–learning and assessment process that ensures attainment of program outcomes
- **MI2 :** To provide quality, innovative, and industry-relevant education that develops competent and professional mechanical engineers with strong fundamentals & problem-solving skills.
- **MI3 :** To promote experiential and research-oriented learning through projects, internships, industry interaction, use of modern engineering tools, and to inculcate professional ethics, teamwork, communication skills, and lifelong learning to address societal and global challenges.

About the Institute

G H Raisoni College of Engineering & Management, Nagpur (GHRCEM) is established in the year 2008 and is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. It is recognized by All India Council for Technical Education (AICTE) and is accredited by NAAC with A+ grade with a score of 3.5 in 4 point scale. GHRCEMN has made its mark in the world of education by enlightening minds and empowering ambitions.

GHRCEM has become the center of learning in a short span of time. It offers a plethora of courses to suffice the educational needs of undergraduate and post graduate students. It makes sure to catalyze innovative and original thinking in the students in order to frame their success journey. Continuous evaluation, maintaining world-class standards and alterations are pursued after regular intervals in the curriculum to go hand in hand with the needs of the industry.

Care is taken to inculcate the principles of excellence, leadership, optimism and values in their life through education empowered with knowledge and vision. The institute has a well organized library, laboratories and spacious class rooms.

Director's Desk



Dear All,

Greetings from the Director’s Office!

I am pleased to know that Department of Mechanical Engineering has published the Annual Magazine MechNova 2024-25.

I congratulate them for the efforts taken to exhibit the activities/achievements carried out by the department towards excellence.

It is a document highlighting the efforts of the students as well as faculty. This magazine will help them in continuing their activities / efforts in achieving the milestones set by them in the coming time.

Dr. Vivek Kapur

Director,

GHRCEM, Nagpur

About the Department

- The most diverse of the engineering fields, Mechanical Engineering influences almost all facets of our life and involves several specializations. It lies at the crossroads of all the engineering disciplines. Mechanical Engineering deals with a wide variety of scientific and technological challenges, in the field of design, manufacturing, power generation, control and automation, computer simulation, environment protection, building services, aerospace and many more.
- Mechanical Engineering Department of GHRCEM not only harvests scholars to design machines that are safe, reliable, and efficient, but also make aware of latest manufacturing technology to manufacture products. The department has well equipped laboratories and workshop facilities with modern sophisticated equipment. The state-of-art is learned to create skilled personal using latest machineries like 3D Printing, CNC, Robotics & High-end Software. Objective of the undergraduate program is to prepare the manpower that is globally best. The department seeks an opportunity to play a major role in producing employable engineers. We strive to ensure that all our undergraduate students have a strong education with teaming and leadership skills, involvement in student activities, and the practical background and internship experience. We believe that emphasizing these areas will make our students well qualified to take leadership roles in the future.

HOD's Desk



Dr. Tejpal C Parshiwanikar
Assistant Professor and HoD GHRCEM Nagpur

It's a matter of great satisfaction to bring forth the magazine of the Mechanical Engineering Department for the session 2024-25. The purpose of the magazine is to make everyone aware with the activities carried out throughout the year and to acquaint all with the achievements of the students and faculty.

This is our small venture and I believe this will help us in identifying the areas which we need to improve. It will help us in providing proper guidance to our budding engineers.

I appreciate the efforts put forth by the editorial board to bring out this Magazine.

Published by

Conceptualized By:

Dr. Tejpal Parshiwanikar
Head of Department,
Mechanical Engineering Department
G H Raisoni College of Engineering & Management, Nagpur.

Co-ordinated by:

Mr. Swapnil Nishane
Assistant Professor,
Mechanical Engineering Department
G H Raisoni College of Engineering & Management, Nagpur.

Editorial Panel

Dr. Nilesh Kanojiya
Dr. Manish Gupta
Rachit S Thulkar (6th Sem Student)

Mechanical Department Faculties (2024-25)

Sr. No.	Name	Designation	Qualification
1.	Dr. Achal Shahare	Professor	Ph. D.
2.	Dr. Arvind Mahalle	Professor	Ph. D.
3.	Dr. Tejpal Parshiwanikar	Assistant Professor & HOD	Ph. D.
4.	Dr. Manish Gupta	Assistant Professor	Ph. D.
5.	Dr. Jay Govind Varma	Assistant Professor	Ph. D.
6.	Dr. Nilesh C Kanojiya	Assistant Professor	Ph. D.
7.	Mr. Pratik Dhage	Assistant Professor	M.Tech, Ph. D Pursuing
8.	Dr. Ritesh Sambare	Assistant Professor	Ph. D.
9.	Mrs. Seema Rewatkar	Assistant Professor	M.Tech,
10.	Mr. Swapnil Sanjay Nishane	Assistant Professor	M.Tech, Ph. D Pursuing
11.	Dr. Prashant Namdeorao Awachat	Assistant Professor	Ph. D.
12.	Dr. Shrikant Arunrao Thote	Assistant Professor	Ph. D.

TOPPERS LIST Even Sem (2024-25)

Semester : VIII Sem Regular

Toppers According to SGPA				
Sr. No.	Roll No.	Name of Student	SGPA	CGPA
1	211	Hashim S Sheikh	10.00	8.93
2	216	Mayur P Dandekar	9.8	9.51
3	207	Gaurav G Walde	9.8	5.95

Semester / Section: VI

Toppers According to SGPA				
Sr. No.	Roll No.	Name of Student	SGPA	CGPA
1	M59	Yash R Gajbhiye	9.04	7.96
2	63	Chaitanya R Lanjewar	8.52	7.48
3	M15	Hitesh P Jibhakate	7.96	7.42

Semester : IV Regular

Toppers According to SGPA				
Sr. No.	Roll No.	Name of Student	SGPA	CGPA
1	M44	Shrutika Jogi	9.60	9.18
2	M17	Himanshu Rathi	9.3	9.24
3	M56	Tejashree Nitnaware	9.25	8.91

TOPPERS LIST Odd Sem (2024-25)

Semester / Section: VII

Toppers According to SGPA				
Sr. No.	Roll No.	Name of Student	SGPA	CGPA
1	220	Suraj P Mankar	10.00	9.19
2	211	Hashim Sheikh	9.65	8.79
3	12	Prathmesh S Khutemate	9.5	9.25

Semester / Section: V

Toppers According to SGPA				
Sr. No.	Roll No.	Name of Student	SGPA	CGPA
1	59	Yash R Gajbhiye	8.80	7.72
2	67	Kapil Bhuteshwar	7.8	8.18
3	M26	Nitin Yadav	7.76	7.65

Semester / Section: III

Toppers According to SGPA				
Sr. No.	Roll No.	Name of Student	SGPA	CGPA
1	M44	Shrutika D Jogi	9.20	9.3
2	M23	Mansvi K Churad	8.65	8.75
3	M56	Tejashree R Nitnaware	8.3	8.8

MESA Student Members List (2024-25)		
Sr. No.	Post	Name of Student
1	President	Swayam Taywade
2	Vice-President	Atharva Telse
3	Secretary	Ayush Somkuwar
4	Treasurer	Suraj Mankar
5	Technical Event In Charge	Mohit Bangre
6	Cultural Event In Charge	Shreyas Dhoble
7	Sports In Charge	Siddhesh Channe
8	Discipline In Charge	Tanushree Dhote
9	Speaker	Vedant Mankar
10	Boys Representative	Rahul Kate
11	Girls Representative	Tanushree Dhote
12	Social Media Incharge	Rachit Thulkar

MAJOR EVENTS

Experts Seminars / Workshop / Carrier Guidance Programme for Students



"Career Guidance Seminar" by Mr. Rishi Chourasia, Founder & Director of Vikalp Education, Nagpur, for B. Tech. 6th sem students on 17th March, 2025



Expert Lecture on "Testing of Electric Vehicles and Their Batteries" for B. Tech 4th and 6th semester students on 4th March 2025 by Dr. Ashwin Dhoble, Associate Professor at VNIT, Nagpur

Experts / Guest Lecture

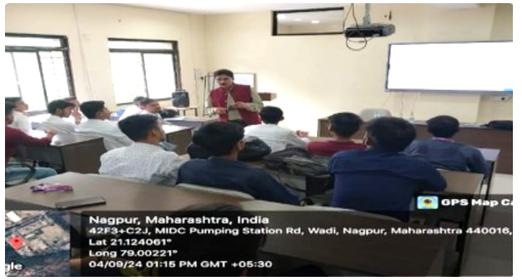


Expert lecture on "Challenges and Issues in Metal Additive Manufacturing using Laser Cladding Process" for B. Tech 4th and 6th semester students on 29th January 2025 by Dr. TVK Gupta, Associate Professor at VNIT, Nagpur

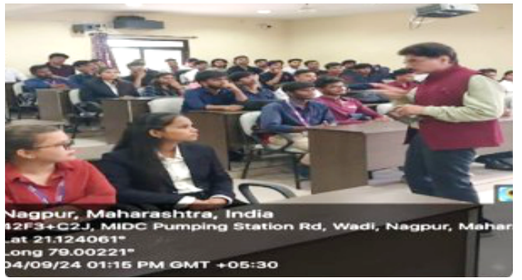


Entrepreneurship Awareness Programme" by Mr. Shubham Yadav from Indo German Tool Room, Nagpur for B. Tech. 4th and 6th sem students on 29th January, 2025

Experts / Guest Lecture









Expert Lecture on the topic "Machine Design" under the course "Product Design" for all the B. Tech. students on 4th Sept. 2024 by Dr. Mangesh Kotambkar, Associate Professor at VNIT Nagpur.





Expert Talk by Dr. D. P. Agrawal, Former Chairman of UPSC on "UPSC Exam: Insights and Advice" for B. Tech 5th & 7th semester students on 2nd Sep, 2024.

Skill Training Programme / Workshop For Students











Value Added Course “Industrial exposer for advanced machining processes and introduction of facility at CIPET” for B. Tech. 4th semester students on 19th March 2025 Conducted at & by Central Institute of Plastics Engineering and Technology (CIPET), Govt. of India Institute, Chandrapur

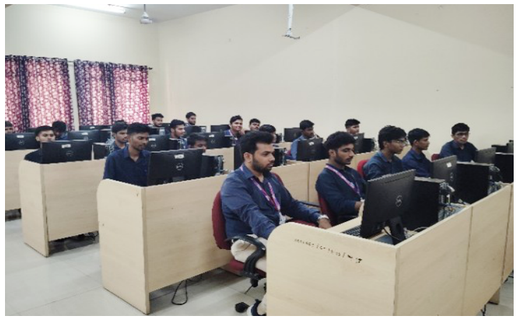


Value Added Course On the topic “BS-VI Norms” for B. Tech. 4th & 6th semester students from 21st January to 23rd January, 2025 (3 Days) by BroadArks Foundation and supported by Total Energies India

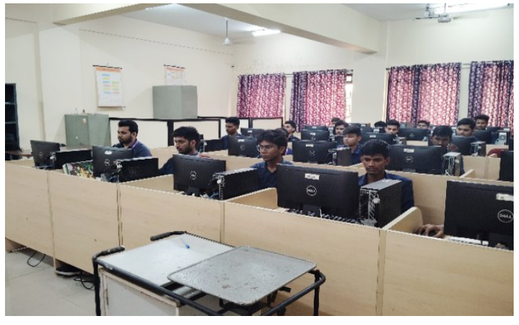
Skill Training Programme / Workshop For Students











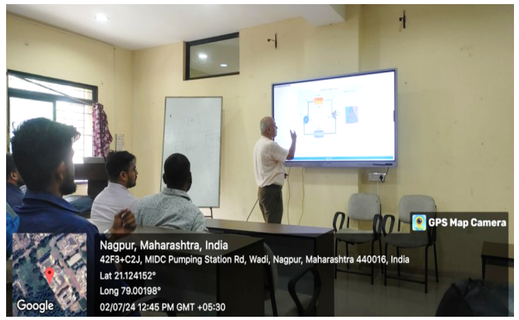
Value Added Course 5 Days “Hands on CATIA & ANSYS” for B. Tech Students from 12th -17th August 2024 Conducted by CADD Centre, Nagpur



Value Added Course On the topic “Industrial Design” for B. Tech. 7th semester students from 12th August to 14th August, 2024 (3 Days)by Mr. Ashutosh Vasant Raole, Product Design Engineer, Ironclad, Dubai, UAE.

Skill Training Programme / Workshop For Students



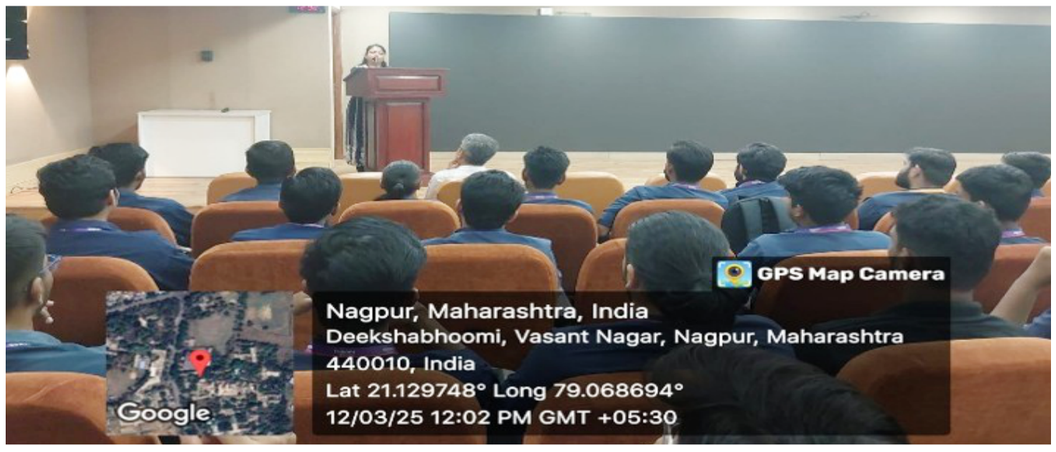


5 Days Skill Training Programme / Value Added Course (30 Hrs) On “Power Plant Familiarization” from 2nd to 6th July 2024 Supported by National Power Training Institute (NPTI), Government of India

Industrial Visit / Educational Tour







Industrial Visit / Educational Tour One day Educational Tour to “Maharashtra Metro Rail Corporation Limited in Nagpur” For B. Tech 6th Semester Students on 12th March 2025

Industrial Visit / Educational Tour



One Day Industrial Visit at “Jaiswal Ice Factory and Cold Storage, Nagpur", for the students of B. Tech. 7th semester on 16th August 2024 under the subject: Refrigeration and Air Conditioning



One Day Industrial Visit at “Koradi Power Plant Nagpur", for the students of B. Tech. 7th semester on 19th July 2024









One Day Industry Visit/ Education Tour to Central Institute for Cotton Research (CICR) at Nagpur, established by the Indian Council of Agricultural Research (ICAR) for B. Tech 5th semester students on 30th August 2024

Project Quality Assurance Initiative (PQAI)





"Project Quality Assurance Initiative (PQAI)" For 7th semester students. Expert was Mr. Rajeshwar Mukunde, Production Engineer, Mahanand Dairy, MIDC Hingna. Total 8 Groups (39 Students) has participated and presented their projects.

Project Activity





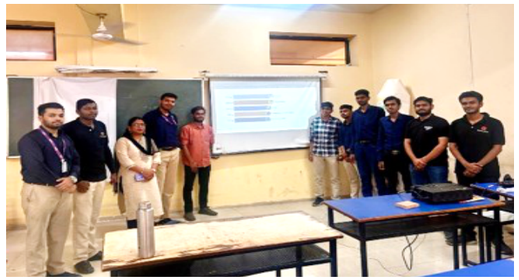
Minor Project "Final Project Exhibition / Demonstration" for 3rd Semester on 17th Oct. 2024 Under Course Category "Community Engagement Project (CEP)"

TECHKRUNCH -2025













- Paper Presentation
- Project Competition
- Technical Quiz Competition
- Design Making Competition
- LAN Gaming Competition

“MECHOVATION” Under TECHKRUNCH-2025 – A National Level Technical Fest on 16th and 17th April 2025.

Mechanical Engineering Student Association (MESA)





Installation Program of Mechanical Engineering Student Association (MESA) Forum 4th September 2024

3 D Printing Club Activity



At 1st Year Skill Tech University Induction Program



For Civil Engineering Students

Music Club Activity



At 1st Year Induction Program



At AI Summit-2024

Parents-Teacher Meet 08th March 2025





Parents-Teacher Meet 06th Sept 2024





College Activities For Students Celebration of "Maharashtra Utsav-2025" On 21st February 2025











Activities For Students





Extension Activity (Visited Muted & Def. Children's Home) by Mechanical NSS Unit in Collaboration AK Bagchi Foundation, Nagpur 29th September 2024





Ganesh Utsav Celebration 7th to 17th September 2024





Sports Carnival 12th to 14th September 2024 (3 Days)

Faculty / Student Achievements Even Sem 2024-2025

- Copyright Submitted– 07 (Registered)
- Journal Publication/Conference Publication –06 (SCI/Scopus published), 02 (SCI Under Review), 01 Conference
  Faculty Involved – Dr. Achal Shahare, Dr. Ritesh Sambare , Dr. Nilesh C Kanojiya, Mr. Pratik Dhage and Mrs. Seema Rewatkar
- Patent Submitted/ Granted/ Registered– 01 (Design-Under Examination), 01 (Design-Granted) 01 (Utility-Published)
  Faculty Involved – Dr. Tejpal C Parshiwanikar, Dr. Nilesh C Kanojiya , Dr. Ritesh Sambare and Mr. Pratik Dhage
- Funding Proposal Submitted/Granted – 03 (SC BOSE, VANI, - Submitted)
  Faculty Involved –Dr. Tejpal C Parshiwanikar, Dr. Achal Shahare, Dr. Jay Govind Verma, Dr. Satish Kumer, Dr. Manish Gupta
- Reviewer Certificate – For 06 research paper (Elsevier, Springer, Taylor & Francis)
  Faculty Involved – Dr. Nilesh C Kanojiya and Dr. Ritesh K Sambare
- Mr. Pratik Dhage invited as an expert under UHV subject to deliver lecture at MKSNCNW, Hingna, Nagpur
- Completed 07 FDP (7 Staff), 03 STTP (3 Staff), 07 Workshop (7 Staff), 02 NPTEL Certifications (2 Staff), Organized by AICTE/ATAL, Go
- 80 + students has participated in various events conducted by Government & Private Institutions.

Faculty / Student Achievements Odd Sem 2024-2025

- Copyright Submitted– 03 (Submitted), 01 (Registered)
- Journal Publication – Under Review 02 (SCI)
  Faculty Involved – Dr. Ritesh Sambare, Dr. Nilesh C Kanojiya and Mr. Pratik Dhage
- Patent Submitted/ Granted/ Registered by faculty – 01 (Design-Submitted), 01 (Utility-Submitted)
  Faculty Involved – Dr. Tejpal C Parshiwanikar, Dr. Nilesh C Kanojiya, Dr. Ritesh Sambare and Mr. Pratik Dhage
- Funding Proposal Submitted/Granted – 01 (UGC- Submitted)
  Faculty Involved –Dr. Tejpal C Parshiwanikar
- Reviewer Certificate – 03 research paper (Elsevier & Springer)
  Faculty Involved – Dr. Nilesh C Kanojiya and Dr. Ritesh K Sambare
- Mr. Pratik Dhage invited as an expert under UHV subject to deliver lecture for 1st year students at Government College of Engineering, Nagpur and Hotel Management Department of GHRSTUN.
- Registered 02 FDP (3 Staff), Attended 01 Workshop (3 Staff), Organized by AICTE, Govt. Institutes, Private Institutes etc.
- 40 + students has participated in various events conducted by Government & Private Institutions.