GH raisoni COLLEGE | Engineering and Management Nagpur

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

Department of Civil Engineering



CIVNEWS
Newsletter

2024-25

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Department of Civil Engineering

CIVNEWS

AY 2024-25

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Vision & Mission of Department

VISION

Our aim is to impart excellent education and to develop technical skills which help to enhance their confidence to take the challenges of upcoming technologies in Civil Engineering and inculcate the culture of social responsibility.

MISSION

- **MD1 :** To provide a conducive teaching–learning environment that nurtures conceptual understanding, critical thinking, and lifelong learning among Civil Engineering students.
- **MD2 :** To promote professional ethics, leadership qualities, teamwork, and continuous professional development through industry interaction and experiential learning.
- **MD3 :** To nurture competent and skilled Civil Engineering graduates with strong technical knowledge and research orientation to address social and infrastructural challenges.

Chairman's Message



Shri Sunil Raisoni
Chairman, RGI

Innovation is the cornerstone of progress in today's world. At RGI, we are dedicated to continually evolving our educational programs to ensure they remain relevant to our students, industry partners, and stakeholders. Our primary goal is to enhance student employability by offering an enriching experience that equips them to face future challenges. By actively collaboration with the corporate sector, we aim to open up diverse opportunities for our students, ensuring they are well-prepared for successful careers.

Our vision is for GHRCEM to play a pivotal role in shaping tomorrow's leaders, cultivating individuals who will make a global impact. We are committed to providing the nation with highly trained, inquisitive minds who are persistent in transforming both their own lives and those of their organizations, contributing to national progress. We wish our graduates every success in their future endeavors.

Director's Desk



Dr. Vivek Kapur
Director, GHRCEM Nagpur

It gives me immense pride to see the growth of our Civil Engineering Department. In an era where data drives innovation and progress, our department continues to shape bright minds into future leaders of technology. I deeply value the efforts of our faculty and the enthusiasm of our students, whose combined dedication makes this department a true center of excellence. May this magazine reflect your creativity, knowledge and passion, inspiring many more milestones ahead.

HOD's Desk



Dr. Mahesh V Raut
HOD, Civil Department

Our Civil Engineering Department has always strived to blend knowledge with innovation, creating an environment where students can explore, learn, and excel. It is truly inspiring to witness their passion and creativity reflected in this magazine. I congratulate the faculty and students for their hard work and dedication and I am confident that the department will continue to achieve greater heights in academics, research and industry contributions.

Advisory Board

Patrons

Shri. Sunil Raisoni
Chairman, RGI

Dr. Vivek Kapur
Director, GHRCEMN

Dr. Mahesh V Raut
Head of Department

Editorial Board

Dr. Vijaya K Kotapati
Editor

ANKIT R CHOUDHARY
Editors in Chief

Atharva R Wargantiwar
Technical Session

Program Educational Outcomes (PEOs)

The educational programme objectives of the civil engineering program are designed to produce skilled engineers who are ready to contribute effectively to the advancement of civil engineering profession and are ready to handle the challenges of the profession.

They shall be able to:

PEO1 : To prepare students to succeed in employment/profession and/or to pursue post graduate and research educations in Civil Engineering in particular and allied Engineering discipline in general.

PEO2 : To provide students with a solid foundation in mathematical, scientific and engineering fundamentals required to formulate, analyse and solve engineering problems requiring knowledge of Civil Engineering.

PEO3 : To prepare students with engineering breadth to analyse and design to contribute in providing solutions related to multidisciplinary real-life problems.

PEO4 : To inculcate in students professional and ethical attitude, effective communication skills and teamwork to become successful professionals.

PEO5 : To provide students with an academic environment that makes them aware of excellence and lifelong learning in emerging technologies.

Program Specific Outcomes (PSOs)

At the end of the programme students will be able to demonstrate:

PSO1 : To enhance the technical ability in planning, analysis, design and maintenance in the field of civil engineering to become a competent & professional Civil Engineer.

PSO2 : To enhance the technical skills for dealing and execute the various advanced technologies in Civil Engineering.

PSO3 : To enhance the quality of material to be used in the field of civil engineering as an eco-friendly material.

Program Outcomes (POs)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/Development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. **The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustain ability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and Team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Skill Training- “REVIT Software”

Workshop on ‘REVIT’ was conducted on 9th and 10th Jan 2025. January 2025 from 2.30 PM - 5.30 PM at the G H Raisoni College of Engineering and Management, Nagpur, with help of ‘Pyramid Designer’ Institute. Mr. Vikki Chauhan was the instructor.
The event was a success. We reached our goal to train students to use REVIT. It is an achievement for Civil Department. Overall, the feedback we received was overwhelmingly positive, with 100 percent of participants commenting favorably on the experience.





Workshop – “Building Construction and Planning Management: Career Opportunities”

The Department of Civil Engineering, GHRCEM, Nagpur organized a Seminar on "Building Construction and Planning Management: Career Opportunities" for second year students of section A dated on 06/01/2025 (Time: 4:40 pm to 6:30 pm) by the trainer Mr. Vikky Chavhan from Pyramid Designer, Nagpur.
Total 44 no. of students of 4th semester attended a seminar. Overall, the session was excellent. The students can understand the career opportunities by learning the basics of software and its usability in various fields which is beneficial for the students of Civil Engineering.





Content Beyond Syllabus- “Estimate of residential buildings using MS Excel”

Content Beyond Syllabus on ‘Estimate of residential building using MS Excel’ was conducted by Dr. Monika Jain for the subject ‘Estimating and Costing’.
Students have learned to use MS Excel for estimating residential building estimates and inputting variables for accurate calculations. Excel's functions allow for systematic analysis, adapting to market fluctuations for improved accuracy.

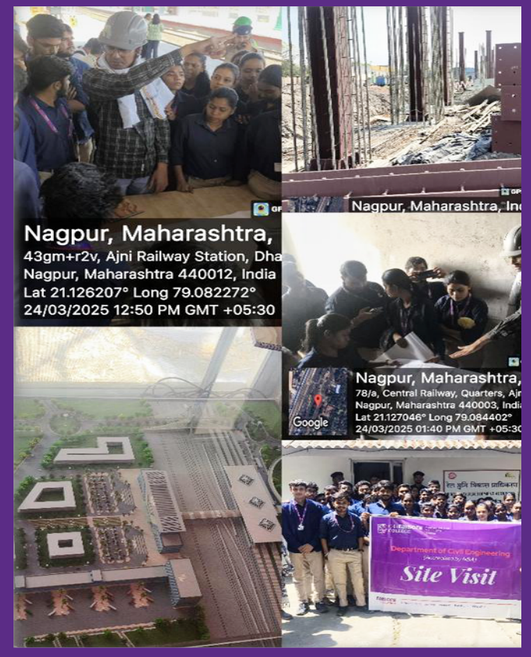




Site Visit to “Ajani Railway Station, Nagpur”







Site Visit “Kanhan Water Treatment Plant Treatment Plant”

Civil Engineering Department of G H Raisoni College of Engineering & Management, Nagpur organized Industrial Site Viste for 6th semester B.E students at Water Treatment Plant The topic for the visit was “Water Treatment Process”.
The program commenced with welcome address given by Ms. Abhilasha Deshmukh. The speaker gave his presentation and explained overall treatment procedure and capacity and other related functions at the site.





Seminar on "Modern Mapping Techniques: Advantage to Construction Industry”

The Department of Civil Engineering, GHRCEM, Nagpur organized a technical seminar on "Modern Mapping Techniques: Advantage to Construction Industry" for second- and third-year students of section L dated 02/04/2025 (Time: 3:30 pm to 5:00 pm) by Dr. Sandeep Shirkhedkar, Director, imaGIS Engineering Solutions Pvt. Ltd., Nagpur. This event was coordinated by Dr. Ashwini Tenpe.
Total 100 no. of students from the 4th and 6th semester attended a technical seminar. The session provided valuable insights into advanced surveying techniques such as Total Station, LiDAR, and GPS, which are highly beneficial for Civil Engineering students specializing in Surveying and Geomatics. The students found the seminar informative and engaging.





Parents Teacher Meet

The Parent-Teacher Meeting (PTM) for all students of the Department of Civil Engineering was held on March 22nd, 2025, from 11.00 AM onwards, with the aim of fostering communication between parents and faculty members regarding the academic progress and overall development of the students.







Expert Talk on Structural audit of Steel Structure

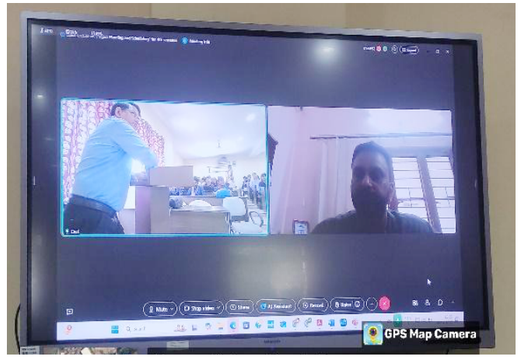
The Department of Civil Engineering organized an Expert lecture on “Structural Audit of Steel Structure” for 6th semester B. Tech students on 8th April 2025. A technical session on “Structural Audit of Steel Structure” was conducted by Mr. Mrudul Vijayrao Gabhane Director of Mudashish Structural Consultant Pvt. Ltd, Nagpur, a reputed structural engineer known for his expertise in steel structure inspection and evaluation. He audited more than 35 Commercial and Residential Buildings.





Guest Lecture on “Project Planning and Scheduling

The Department of Civil Engineering organized a guest lecture on “Project Planning and Scheduling” for 4th Semester B. Tech students on 28th February 2025 in online mode through Webex platform. The Guest speaker was Dr. Naveen Prashar, Assistant Professor, Department of Civil Engineering, MANIT, Bhopal, MP. Dr. Naveen Prashar has expertise in Architecture and City Planning, Urban Flood Resilience, Disaster Management, Community/Neighborhood Planning. The program commenced with the welcome address by Dr. Santosh Verma sir. Dr. Naveen Prashar then started his lecture with some basic questions on Project Management.





Flip Teaching on “Detailed Estimate”

Flip Teaching on "Detailed Estimate of Residential Building" was conducted by Dr. Monika Jain for the subject Estimating and Costing (UCEL 308) for 3rd-year (Sec A) on 28th January 2025 in offline mode at room 209.
The lecture began with an introduction to the process of preparing a detailed estimate for residential buildings, covering various aspects like material quantities, labor costs, and equipment usage. Later, practical examples of residential building projects were presented, focusing on cost estimation, material take-offs, and preparation of rate analysis.





Peer Teaching on topic “Drawing Plan and Elevation of Residential Building in Auto CAD”

Peer Teaching is a suite of practices in which peers instruct each other in a purpose-driven, meaningful interaction. The speaker was Ms. Neha Katre student of M. Tech 2nd Semester. The topic for the lecture was “Drawing Plan and Elevation of Residential Building in Auto CAD”. She has defined all the terms related to Auto CAD drawing with practical application and explained one residential building with hand on Auto CAD Software.





Patent Filed / Published / Granted

Sr. No	Faculty Name	Department	Title	Patent No.	Year	Date of Filing	Date of Publishing
1.	Dr. Monika Jain, Dr. Mahesh Raut, Mr. Aaquib Ansari, Dr. Ashwini Tenpe	Civil Engineering	Self-Healing Mortar and Concrete by using Mojavensis	202521034788 A	May 2025	09/04/2025	02/05/2025
2.	Dr. Tushar Shende	Civil Engineering	Enhanced Digital simply supported beam experimental setup for precision analysis	202521021235 A	Mar 2025	10/03/2025	21/03/2025

Details of the Copyrights

Sr. No	Faculty Name	Registration Number	Title of Work	Date of Certificate
1.	Dr. Monika Jain, Dr Santosh Verma	L-161656/2025	Understanding risk and vulnerability in disaster management	27/02/2025
2.	Mr. Rahul Hinge, Dr. Ashwini R. Tenpe	4654/2025-CO/L	Paver Block by using Waste Material	29/04/2025
3.	Dr. Ashwini R. Tenpe, Mr. Rahul Hinge	4647/2025-CO/L	Importance of soil in Civil Engineering and Field application of Soil Mechanics	10/02/2025

Faculty Development Program

Sr. No	Faculty Name	Title of Program	Venue & Organizer	Date	Duration
1.	Dr. Monika Jain	Sustainable Civil Engineering Construction materials in infrastructure and Industry	National Institute of Technology, Raipur	6th to 11th Jan 2025	One week
2.	Dr. Tushar Shende	Building Maintenances, Repair and Rehabilitation	NITTTR, Chandigrah Apr 2025	21st to 25th	One week
3.	Dr. Tushar Shende	Effective Teaching-Leaning Using social media	NITTTR, Chandigrah	26th to 30th	One week May 2025

WORKSHOPS

Sr. No	Faculty Name	Title of Program	Venue & Organizer	Date	Duration
1.	Dr. Ashwini R Tenpe	Role of Geotechnical Engineering in Developing Smart Cities and Sustainable Infrastructure (GEOSMART-2025)	MNNIT, Allahabad and IGS Allahabad Chapter	14th to 18th Feb 2025	One week
2.	Dr. Mahesh V. Raut	Role of Geotechnical Engineering in Developing Smart Cities and Sustainable Infrastructure (GEOSMART-2025)	MNNIT, Allahabad and IGS Allahabad Chapter	14th to 18th Feb 2025	One week
3.	Mr. Aaquib Ansari	Role of Geotechnical Engineering in Developing Smart Cities and Sustainable Infrastructure (GEOSMART-2025)	MNNIT, Allahabad and IGS Allahabad Chapter	14th to 18th Feb 2025	One week
4.	Mr. Rahul Hinge	Role of Geotechnical Engineering in Developing Smart Cities and Sustainable Infrastructure (GEOSMART-2025)	MNNIT, Allahabad and IGS Allahabad Chapter	14th to 18th Feb 2025	One week
5.	Dr. Monika Jain	Artificially Intelligent Tools	Microsoft Certified Trainer Co-founder & CEO, Skill Nation	24th to 29th Jan 2025	One week
6.	Ms. Deepa Telang	Recent Developments in structural Engineering & skill upliftment	Haldia Institute of Technology, West Bengal, India in association with IQAC, Haldia	26th to 28th Mar 2025	3-days
7.	Dr. Vijaya Kotapati	Universal Human Values	All India Council For Technical Education	03-08 March, 2025	6-Days