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

A SNEAK PEEK INSIDE THIS ISSUE.....

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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-AutoCAD Software

The Department of Civil Engineering at GHRIET, Nagpur organized a Four-Day Skill Training Programme on "AutoCAD Software" for second-year students of Section L on 24th and 25th June 2024 from 12:30 pm to 2:30 pm. The training was conducted by Mr. Vikky Chavhan from Pyramid Designer, Nagpur. A total of 37 third-semester students attended the program and gained skills in developing architectural plans and learning other AutoCAD features, which are beneficial for Civil Engineering students. We extend our gratitude to Dr. Mahesh Raut, Head of the Civil Department, and Dr. Vivek Kapur, Director of GHRIET, Nagpur, for their guidance and support.



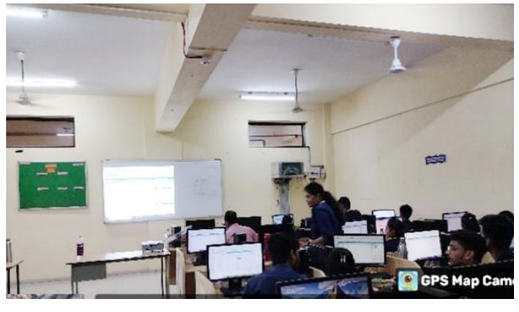






Skill Training- STAAD-Pro

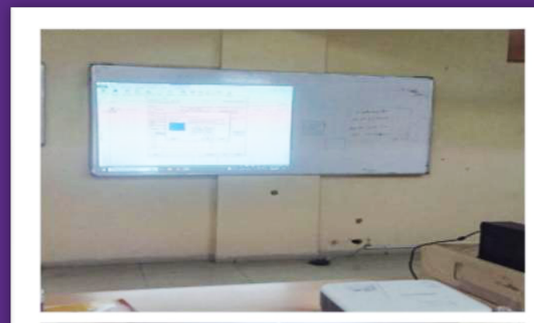




A Skill Training Programme on 'STAAD-Pro' was conducted from 19th July to 22nd 2024 from 2.30 PM – 6.30 PM at the G H Raisoni College of Engineering and Management, Nagpur, With help of 'CAAD CENTER' Institute. Mr. Deogirikar was the instructor. The event was coordinated by Ms. Abhilasha Deshmukh and Dr Ashwini Tenpe.
The event was a success. We reached our goal to train students to use STAAD-Pro. It is an achievement for the Civil Department.

Skill Training- Microsoft Project (MSP)

Two-day value-added program on "MICROSOFT PROJECT (MSP)" conducted by the Department of Civil Engineering for 4th-year students on August 29-30 2024 in offline mode at MASS lab (B-2-03). The speaker was Mr. Rishikesh Tantak, Mr. Sagar Deogirikar, Engineer, CADD Centre, Nagpur.
MSP is a powerful project management software that helps with planning, scheduling resource allocation, and project progress tracking. They gained valuable insights into managing complex projects using MSP.
The program commenced with the welcome address given by Dr. Monika Jain and then the speaker gave his presentation on the above-mentioned topic.









Content Beyond on Analysis of Portal Frames by Flexibility Method

Content Beyond Syllabus on "Analysis of Portal Frames by Flexibility Method" was conducted by Dr. Monika Jain for the subject Advanced Structural Analysis (UCEL 402) for 4th-year (7th Sem) on 12th August 2024 in offline mode in regular lectures slots at 208. A total of 52 students have attended this class.
The students are familiar with the analysis of beams using the flexibility method. This Lecture commenced with an Introduction to the portal frame analysis with the flexibility method, and later analysis of problems based on the Flexibility method considering the different loading and boundary conditions that were solved.





Content Beyond On Direct Shear Test

The "Content Beyond Syllabus" lecture was organized by Civil Engineering Department of G H Raisoni College of Engineering and Management, Nagpur for third year students (5th sem students) on 10th Sept 2024. Basically, the lecture conducted on topic "Direct Shear Test" for the subject "Foundation Engineering" delivered by Dr. Ashwini R. Tenpe. Subject teacher imparted the knowledge related to that topic and explained the students about basic concept of Direct Shear testing with its application in field via presentation. The lecture was very informative and good experience for the students.



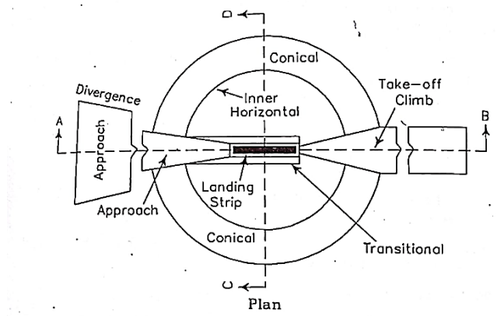


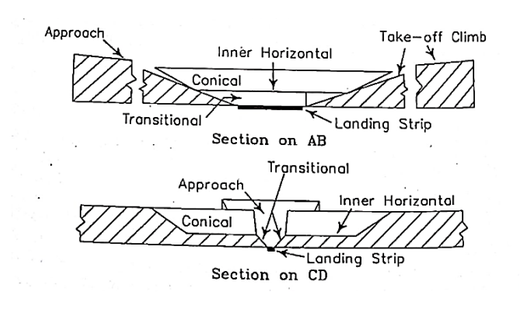
Content Beyond on Airport Imaginary Surfaces

The Department of Civil Engineering organized Content beyond syllabus on "Airport Imaginary Surfaces" for 7th Semester B. Tech students on 17th September 2024 in Classroom 208. The take-off climb area shall be established beyond the end of runway or clearway for each runway direction intended to be used for the take-off aero planes.
The approach surface shall be established from the smaller ends of runway strip for each runway direction proposed to be used for the landing of aero planes.









Content Beyond Syllabus on California Bearing Ratio Test

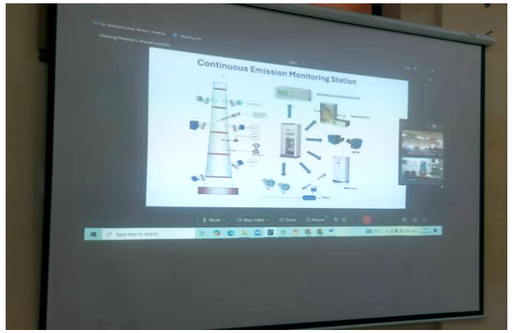
The "Content Beyond Syllabus" lecture was organized by Civil Engineering Department of G H Raisoni College of Engineering and Management, Nagpur for Second year students (3rd sem students) on 4th Oct 2024. Basically, the lecture conducted on topic "California Bearing Ratio Test" for the subject "Soil Mechanics" delivered by Dr. Ashwini R. Tenpe. "Content beyond syllabus" is a technique of practices in which outside syllabus and which was not included in the syllabus are taken.





Guest Lecture Environmental Pollution

I am pleased to inform you that on September 27, 2024, the Department of Civil Engineering organized a Guest Lecture by Dr. Prabhat Kumar Jaiswal, HOD department of Environment, NTPC Auraiya. This lecture was arranged for the B. Tech (DSY) odd semester students on Environmental Pollution.
The lecture proved to be highly beneficial, providing the 60 participating students with valuable insights into excavation procedures, layout marking, and foundation detailing —essential aspects of the Environmental Science subject.





Site Visit – NEERI

August 16, 2024, the Department of Civil Engineering organized a site visit to National Environmental Engineering Research Institute (NEERI) Nagpur, managed by Shri Prakash Kumbhare (Scientific visit-in-Charge), Sr. Principal Scientist. Extending our sincere appreciation to Dr. Atul Vaidya, Director, NEERI for providing the facility and organised lecture on “Understanding of Climate Change and Corrective Action” by Prof. Chetan Singh Solanki, Professor, IIT Bombay & Founder, Energy Swaraj Foundation at NEERI Auditorium and also thankful to Dr. Nitin Labhsetwar, Chief Scientist, Dr. Lal Singh, Principal Scientist, Dr. Ritesh Vijay, Sr. Principal Scientist, Dr. M. P. Patil, Chief Scientist, for his impeccable coordination and hospitality.





Industrial Visit - Kaprecon Sleeper Industry

Department of Civil Engineering organised Site visit at “Kaprecon Sleeper Industry (Butibori) Nagpur” which was conducted by Mr. Aaquib Ansari and Dr. Monika Jain for Advanced Transportation Engineering subject for 4th-year on 21th September 2024. The site is managed by Mr. Pravin Shinde (Site Incharge), Senior Engineer. A total of 30 students have visited the sleeper Industry. The visit proved to be highly beneficial, providing the 30 participating students with valuable insights into essential aspects of the Railway Sleeper casting and testing for Advance Transportation Engineering subject.







Site Visit Gloria Apartment, Nagpur

The site visit is organized in Department of Civil Engineering at “Gloria Apartment, Anurag Developer, Keshav Nagar, Jaitala road, Nagpur” for B-tech 3rd semester students on 13th August 2024. We appreciate the flawless coordination and hospitality provided by Mr. Vikky Chavhan (CEO, Pyramid Designer, Nagpur).











Parent-Teacher Meeting

The Parent-Teacher Meeting (PTM) for all students of the Department of Civil Engineering was held on September 6th, 2024, with the aim of fostering communication between parents and faculty members regarding the academic progress and overall development of the students.
The PTM saw a commendable attendance from both parents and faculty members. It was encouraging to witness active participation in the academic journey of the students.





Memorandum of Understanding - Pyramid Designer

Department of Civil Engineering, GHRCEM, Nagpur dated 24th June 2024 signed a Memorandum of Understanding (MoU) with Pyramid Designer, Nagpur for 5 years.
This MoU represents a commitment to work together towards knowledge-sharing initiatives, facilitating the exchange of technical expertise and innovative ideas, and also collaborating on Training Programs and Workshops to enhance Skills and Competencies in the various fields of Civil Engineering.





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Sr. No	Faculty Name	Title	Registration No.	Date
1.	Mr. Aaquib Ansari	Measuring Distance, Level and Temperature By Utilization of Waste Plastic in Manufacturing	L-155208/2024	14/10/2024
2.	Dr. Mahesh V Raut	Brick Along with Manufactured Sand and Quarry Dust	L-153131/2024	05/09/2024

Publications Details

Sr. No	Faculty Name	Title of Paper / Publication	Title of Journal	SCI / SCOPUS/ UGC	Link to Paper
1	Dr. Monika Jain	Evaluation of tensile force and mechanical performance in post-tensioned concrete anchorage zones: A combined experimental & numerical study	Structures	SCI	https://doi.org/10.1016/j.istruc.2024.107703
2	Dr. Tushar Shende	An assessment of workability, mechanical and durability properties of high-strength concrete incorporating nano-silica and recycled E-waste materials	Beni-Suef University Journal of Basic and Applied Sciences	SCI	https://doi.org/10.1186/s43088-024-00521-w
3	Ms. Abhilasha Deshmukh	Advancements and Strategies for Enhancement of MBBR System for Industrial Wastewater Treatment: Review	Indian Journal of Environmental Protection	Scopus	0253-7141/ https://www.e-ijep.co.in/44-8-712-719/

STTP/WORKSHOPS/FDP Details

Sr. No	Faculty Name	Name of the Event-STTP/WORKSHOP/ FDP	Duration of Event	STTP/ WORKSHOP/ FDP	Organised By
1.	Mr. Aaquib Ansari	NEP 2020 Orientation & Sensitization	10 Days	FDP	Malaviya Mission Teacher Training Centre, National Programme Institute of Technology Warangal
2.	Dr. Ashwini R Tenpe	Geotechnical Engineering Laboratory	4 weeks	FDP	NPTEL-AICTE
3.	Dr. Mahesh V. Raut	NEP 2020 Orientation & Sensitization Programme	10 Days	FDP	Malaviya Mission Teacher Training Centre, National Institute of Technology Warangal
4.	Dr. Vijaya Kotapati	Recent Advances in Civil Engineering	1 week	FDP	P.V.P. Siddhartha Institute of Technology
5.	Mr. Rahul Hinge	NEP 2020 Orientation & Sensitization Programme	10 Days	FDP	Malaviya Mission Teacher Training Centre, National Institute of Technology Warangal
6.	Ms. Abhilasha Deshmukh	Wastewater Treatment and Recycling	12 weeks	FDP	NPTEL-AICTE
7.	Ms. Deepa Telang	High Performance Computing for Medical Image Processing and Computer Vision	One week	FDP	MNNIT, Allahabad