RAISONI GROUP
a vision beyond

G H RAISONI INSTITUTE OF ENGINEERING AND TECHNOLOGY, NAGPUR

(Approved by AICTE, New Delhi and Recognized by DTE, Maharashtra)
An Autonomous Institute Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University
Accredited by NAAC with A+ Grade

Engineering | Management | Law | Schools | Other Courses
NAGPUR PUNE JALGAON AMRAVATI CHHINDWARA

RAISONI GROUP OF INSTITUTIONS

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Department of Civil Engineering



CIVNEWS

NEWSLETTER

2022-23

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Department of Civil Engineering

NEWSLETTER 2022-23

A SNEAK PEEK INSIDE THIS ISSUE

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Vision and Mission of Department

Vision of the Department

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 of the Department

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.

Programme Educational Objectives (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:

PEO-I : 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.

PEO-II : 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.

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

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

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

Program Specific Outcomes (PSO)

PSO 1 : To enhance the technical ability in planning, analysis, design and maintenance in the field of civil engineering to become a competent & professional Civil Engineer.

PSO 2 : To enhance the technical skills for dealing and execute the various advanced technologies in Civil Engineering.

PSO 3 : To enhance the quality of material to be used in the field of civil engineering as an eco-friendly material.

Programs Outcomes

1. **Engineering Knowledge:** Apply to 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 Analyze Complex engineering problems reaching substantiated conclusions using 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 modeling to complex engineering activities with an understanding of the limitations.
6. **The Engineer and Society:** Apply reasoning informed by contextual knowledge to assess Societal, Health, Safety, Legal and Cultural Issues, and the consequent responsibilities relevant to professional engineering practice.
7. **Environment and Sustainability:** Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
9. **Individual and Teamwork:** 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 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 multidisciplinary 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.

Chairman's Message



Shri Sunil Raisoni
Charman, 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 GHRIET 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, GHRIET 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 Message



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, GHRIET

Dr. Mahesh V Raut
Head of Department

Editorial Board

Ms. Pooja Raut
(Editor)

Mr. Kshitij Tule
(Editors in Chief)

Ms. Bhargavi Bawane
(Editors in Chief)

Expert Talk on “Placement Orientation Programme”

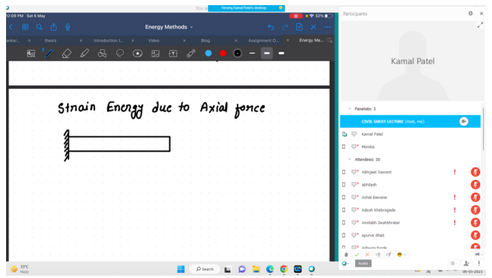
The Department of civil Engineering organized Expert talk on “Placement Orientation Program” for VI semester B.Tech students A & B section, on 6th May 2023 at offline mode at Room No 101. The speaker was Dr. Gurupal Singh, Dean of Industry Relations Placement Department.

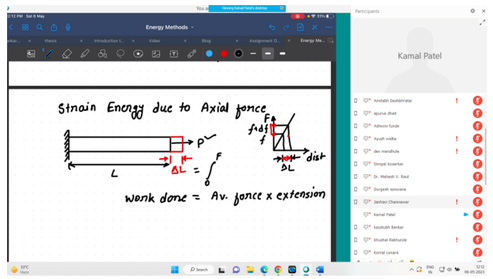
The lecture was very informative and good experience for the students, and he answered to all queries put up by the students to their full satisfaction. Total 88 students attended Orientation Program.





Expert Talk on “Strain Energy”





The Department of civil Engineering organized Expert lecture on “Strain Energy” for IV semester section B (DSY), B.E students on 6th May 2023 at online mode at Room No 203. The Guest Speaker was Dr. Kamal Patel, Assistant Professor, GEC Raipur.

The program commenced with the welcome address given by HOD Dr. Mahesh Raut the guest lecture was preceded by emphasized the importance of Structural Analysis. He explained about role of strain energy in structural building members. The overall session was very knowledgeable and motivational for the students of Civil Engineering Department. The lecture started around 11:45 am and ended around 1:00 pm. The lecture was received with admiration by the students, and they also found the slides appropriate.

Guest Lecture on “Basic Concepts & Origin of Soil”

The program commenced with the welcome address by Mr Neeraj kumar and felicitation by Dr. Mahesh V. Raut, Head Civil Engineering. Dept. Then the speaker gave his presentation on the topic “Basic Concepts & Origin of Soil”. He explained to the students about the soil, characteristics and there heaving loss if it did not use properly. He also explained problems arrives because of soil at various construction level and how its effect structure.

The lecture was very informative for the students, and he answered all queries put up by the students to their full satisfaction. More than 44 students attended this guest lecture.





Flip Teaching Report on topic “Conjugate Beam Method”

Civil Engineering Department of G. H. Raisoni Institute of Engineering & Technology, Nagpur organized flip teaching on the topic “Conjugate Beam Method” for IV semester section B (DSY) students on 07-June-2023 for the subject “Structural Analysis”.

The student found the topic very interesting. Students were able to understand the basic concept and application of conjugate beam method in Structural Analysis. The different component of conjugate beam method was also covered in the session.

The session was very informative for the students & total of 33 students out of 43 has attended and highly appreciated the session.

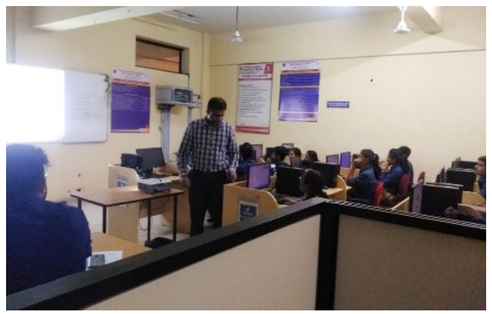


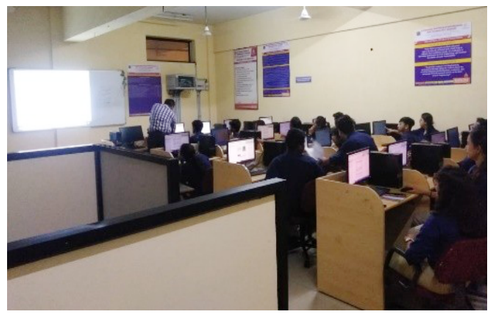


Workshop on BIM

Workshop on 'BIM' was conducted on 24th July 2023 from 4.30 PM – 6.30 PM at the G.H.Raisoni Institute of Engineering and Technology, Nagpur, with help of 'Astral Informatics Pvt Ltd' Institute Ms. Priyanka Kawale, and Ms. Anjali Khote was the instructor.

The event was a success. We reached our goal to train students to use BIM. 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. Total 112 number of students were participated.





Content Beyond Syllabus on topic "Cable & Suspension Bridge"

Civil Engineering Department of G. H. Raisoni Institute of Engineering and Technology, Nagpur organized Content beyond Syllabus on the topic "Cable and Suspension Bridge" for 4th semester section B (DSY) students on 17- May-2023 for the subject "Structural Analysis".

The student found the topic very interesting. Students were able to understand the concept & application of making Cable & Suspension Bridge in construction sector. The different component of cable & suspension bridge was also covered in the session.

The session was very informative for the students. & total of 34 student out of 43 has attended and highly appreciated the session.





"Town O Planning Competition"

Town O Planning Competition event was held on 15th September 2022 from 12-5 PM. The event was a success. We reached our goal of having a great competition in the Town O Planning Competition and we were excited about welcoming student volunteers. Overall, the feedback we received was overwhelmingly positive, with 100 percent of participants commenting favorably on the experience.



"Fun Quiz Competition"

Fun quiz event was held on 15th September 2022 from 2:30-4 PM. Quiz competitions are always interesting and informative, which provide excitement among the students.

A Fun Quiz is a form of game or mind sport in which players attempt to answer questions correctly about a certain or variety of subjects. Quizzes can be used as a brief assessment in education and similar fields to measure growth in knowledge, abilities, or skills.

The Quiz was unique because it was held on virtual platform. The Quiz had three rounds and one bonus round. Rules and regulations of the quiz were explained at the beginning. Three-round competition includes Objective, Direct answer and audio-visual round, which engaged the students for one and half hours. Total 138 number of students participated.





"Debate Competition"

Event was held on 15th September 2022 from 4-5:30PM at the G H Raisoni Institute of Engineering and Technology, Nagpur. The aim of organizing debate competition was to hone the public speaking skills of the students and teach them to be articulate while expressing their thoughts and opinions. The session was the kaleidoscope of opinions, thoughts and perspective that enhanced the knowledge and understanding about the cashless economy among students.

The event was a success. We reached our goal of having a great competition in the Debate Competition event and we were excited about welcoming student volunteers. Overall, the feedback we received was overwhelmingly positive, with 100 percent of participants commenting favorably on the experience. Total 16 students participated in this competition.





"Best from Waste Competition"

Event was held on 15th September 2022 from 02-5:30 PM at the G H Raisoni Institute of Engineering and Technology, Nagpur. The aim of organizing debate competition was to Be Recycling and reusing the valuable waste material can result in development of fantastic and usable products. Rather than putting these waste materials into the landfills, various innovative and creative ideas can be put together to being something new and useful. Various Waste Material Used For Making Useful Products. Old Newspaper • Notebooks and Chart Paper • Cardboard and Book Cover • Paper Plates, Spoons and Disposable Glass • Pens and Refills • Old CDs and DVDs • Toothpicks and Matchsticks • Dry Stem of Plants and Trees • Mango Seeds • Seeds of various Fruits • Old Curtains & Table Covers • Used Foil Paper • Jute Rope • Plastic Bottles • Strings and Sequences, etc.

The event was a success. We reached our goal of having a great competition in the event of Best from waste Competition and we were excited about welcoming student volunteers. Overall, the feedback we received was overwhelmingly positive, with 100 percent of participants commenting favorably on the experience. Total 69 students participated in this competition.

Patent Filed /Published /Granted

Sr. No.	Name of Faculty	Department	Title	Patent No.	Date of Filing
1	Dr. Tushar Shende, Mr. Nikhil Rathod	Civil Engineering	Development of Masonry Cement with Local Materials (Vidarbha Region) as an Ingredient.	9049000186, 7020562783	21-07-2022
2	Dr. Prashant Nagarnaik, Ms. Abhilasha Deshmukh	Civil Engineering	Enhancing Performance of MBBR using electro -coagulation as Supportive Treatment	9881713197, 7972984921	22-07-2022
3	Dr. Mahesh V. Raut/ Ms. Suchampa Bagachi	Civil Engineering	Investigations on Mechanical and Durability properties of Cupola Slag incorporated in environmentally friendly bricks.	9970845386/ 9790251360	31/01/2023

Details of the Copyrights

Sr. No.	Name of Faculty	Registration Number	Title of Work	Date of Registration
1.	Ms. Abhilasha Deshmukh	13883/2022-CO/L	Structural Health Monitoring	01-12-2022
2.	Mr. Aaquib Ansari	24879/2022-CO/L	Lighting and Ventilation	01-12-2022
3.	Ms. Prajwalita Thamke	4496/2023-CO/L	Alternate Types of Building	20/02/2023

Faculty Development Program

Sr. No.	Name of Faculty	Title of Program	Venue & Organizer	Date / Duration
1.	Mr. Panna Lal Kurmi	Five Days Online International Faculty Development Program on Recent Trends in Composites (FDP RTC 2023)	Alliance University, Bengaluru	2 - 6 January 2023.
2.	Mr. Panna Lal Kurmi	Introduction to Finite Element Method	NITTTR, Kolkata	2 - 6 January 2023.
3.	Ms. Pooja Raut	Futuristic trends in Civil Engineering	Kongunadu College of Engineering and Technology- (Autonomous), Trichy.	06 -11 February 2023

WORKSHOPS / STTP

Sr. No.	Name of Faculty	Title of Program	Venue & Organizer	Date
1.	Mr. Aaquib Ansari	Non- Linear dynamics and Applications	IIT Indore	13-16 February, 2023
2.	Dr. Mahesh Raut	Implementation of National Education Policy 2020	GHRCEM, Pune	03 -04 February, 2023
3.	Ms. Pooja Raut	Tools and Techniques for effective literature review	Auro University, Surat Gujrat	17 February, 2023
4.	Ms. Pooja Raut	Non- Linear dynamics and Applications	IIT Indore	13-16 February, 2023
5.	Ms. Trushna Patle	Application of Remote Sencing and GIS in urban Area	NIT Patna	15 to 19 March, 2023
6.	Ms. Deepa Telang	Advances in the field of Civil Engineering	Anjuman College of Engineering and Technology, Nagpur	06 -10 February 2023

Publications Details

Sr. No.	Name of Faculty	Title of Paper/ Publication	Title of Journal	SCI /SCOPUS/ UGC	Link to Paper
1.	Neeraj Kumar, P Khurmi, Pooja Raut	A review on geopolymer based soil stabilisation	International Conference on climate resilient construction and building Materials	Conference	
2.	Prajwalita A. Thamke	Seismic Assessment of existing gravity load designed RC framed building	International Journal for Research in Applied Science and Engineering Technology	International Journal	https://www.ijraset.com/best-journal/seismic-assessment-of-existing-gravity-load-designed-rc-framed-building
3.	Pradnya Badole, Dr. Mahesh V. Raut, Mr. Sanjivkumar Harinkhede	"Review on Detection of Internal Defects in CFRP	International Journal for Research in Applied Science and Engineering Technology	International Journal	https://www.ijraset.com/best-journal/review-on-detection-of-internal-defects-in-cfrp-strengthened-steel-structures-using-eddy-current-pulsed-thermography