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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

RAISONI GROUP OF INSTITUTIONS

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Department of Civil Engineering



KONSTRUCT

MAGAZINE
2022-23

Department of Civil Engineering

MAGAZINE
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 : Apply fundamental technical knowledge and skills to find creative solutions to technological challenges and problems in various domains of Civil Engineering.

PEO-II : Analyze, design and use skills in order to formulate and solve Civil Engineering problems.

PEO-III : Practice Civil Engineering in an ethical manner, as an individual or a team member, implementing eco- friendly sustainable technologies.

PEO-IV : Take up higher education and R & D in Civil Engineering and allied areas of science and technology for the benefit of industry and society.

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

Program Specific Outcomes (PSO)

PSO 1 : The ability to understand, Analyze, Design, Implement and test in the domain of computer programming & allied areas related to Artificial Intelligence, Data Analytics and Networking.

PSO 2 : The ability to use knowledge and analyze the computing system by applying management principles, Mathematical Foundations, Standard Practices and Strategies to deliver a quality product.

PSO 3 : The ability of understandings the expectations of industry and practical competence with a broad range of solutions for lifelong learning and develop the spirit of entrepreneurship and nurture the quest for higher level of knowledge.

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
Chairman, RGI

Innovation is the cornerstone of progress in today's world. At RGI, we are dedicatazed 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, GHRIETN

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)

5 Day's Workshop on Skill Training Program of Internet of Things (IOT) from 22/02/22 to 28/02/22.

The workshop on Skill Training Program of Internet of Things was conducted by the department of Civil Engineering for third-year students from 22 Feb 2022 to 28 Feb 2022. The trainer for the Skill Training is Dr. Rahul Pethe from ETC Department.

The main objective of this Skill Training Programme is to provide knowledge about the update in technology in today's world and to make them competent in solving various problems with help of IOT in the Civil Engineering field. The students will be able to understand the knowledge and understanding of fundamental IOT Paradigms, Architectures, Possibilities, and Challenges, both with respect to software and hardware. The basic usage of the ARDUINO Environment for creating your own embedded projects at a low cost. All third-year students are enrolled themselves in the Skill Training Program to enhance their skills in the Internet of Things (IOT).

The sessions started around 3.30 pm and ended around 5.30 pm each day. The IOT workshop was received with admiration by the students and they also found the sessions appropriate. The event ended with an honorarium to the guest and a vote of thanks.

The event was successfully organized by Asst. Prof. Deepa Telang and Asst. Prof. Shalala Sharma from the Civil Engineering Department under the guidance of Dr. Prashant Nagarnaik (HOD of Civil Department) & Dr. Vivek Kapur Director, GHRIET, Nagpur.





Guest Lecture on "Turbulent Flow in Pipes" by Dr. Abhijit D. Lade, Asst. Prof., VNIT Nagpur

The department of Civil Engineering organized a Guest Lecture on "Turbulent Flow in Pipes" for 5th semester B. Tech. students on 19th October 2022 in the offline mode. The Guest Speaker was Dr. Abhijit D. Lade, Assistant Professor, Department of Civil Engineering, VNIT Nagpur. Dr. Lade has expertise in the Hydraulic Engineering, Turbulent Flow, Hydraulic and Mathematical and Modelling and has an experience of more than six years including more than five years' experience in academics.

The program commenced with the welcome address by Dr. Ankur Kapoor and felicitation by Dr. Mahesh V. Raut, Head Civil Engg. Dept. Dr. Lade then started his Lecture with some basic questions on Laminar Flow. He then explained about the difference between Laminar and Turbulent Flow by showing a video. Dr. Lade used Power Point Presentation as well as Chalk and Talk Approach during the Lecture. He showed various Graphics and Videos to elaborate the topic in detail. The reynolds averaged navier stokes model was very well explained and discussed during the lecture. Dr. Lade also shared his experimental setup photographs while working on his Ph. D. Research Topic at IIT Guwahati. He showed how an acoustic doppler velocimeter can be used to capture velocity of flow in three dimensions. Prandlt's mixing length theory was also explained at the end of the lecture.

The overall session was very knowledgeable and motivational for the students of Civil Engineering Department. Students also interacted well with the expert and Dr. Lade was able to solve all the queries raised by the students. In the end Dr. Lade.

The lecture started at 10.50 am and ended at around 12.45 pm. The lecture was received with admiration by the students and they also found the slides appropriate. The event ended with a vote of thanks.

The lecture was very informative and good experience for the students and the expert answered to all queries put up by the students to their full satisfaction. Nearly 75 students attended the lecture. The event was successfully organized by Dr. Ankur Kapoor in the Department of Civil Engineering under the guidance of Dr. Mahesh V. Raut (HOD of Civil Department) GHRIET, Nagpur.

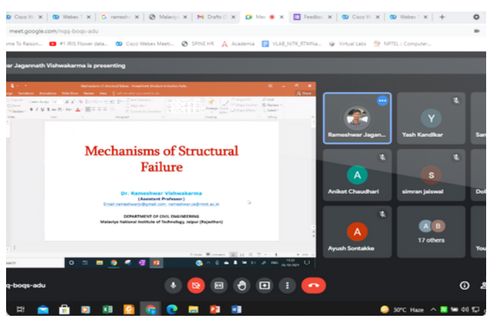
Guest Lecture on "Redistribution of moment in Reinforced Concrete Beam "For 7th Semester on 17/10/2022 on online mode

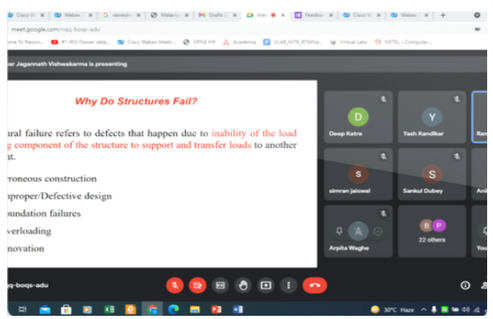
Guest Lecture on "Redistribution of moment in Reinforced Concrete Beam" conducted by Department of Civil Engineering for Final Year Students from 17th October 2022 on online mode through Webex Platform. The speaker was Dr. Govardhan Bhatt, Assistant Professor, NIT Raipur. He has a total 10 years of Teaching Experience.

Basically the Lecture conducted on subject advanced concrete structure on the Topic "Redistribution of moment in Reinforced Concrete Beam" organized by Prof. P. A. Thamke under the guidance of Dr. M. Raut (HOD of Civil Department).

The program commenced with the welcome address given by Prof. P. A. Thamke and then the speaker gave his presentation on the topic Redistribution of Moment in Reinforced Concrete Beam. He explained to the students about the basics of analysis, design and Redistribution of Moment in Concrete Beam with one solved numerical etc. The lecture was very informative for the students and he answered all queries put up by the students to their full satisfaction. Total 60 students attended G this Guest Lecture. Prof P. A. Thamke gives the vote of thank for this event.







Expert Talk on "Microstructure Characterization with XRD, FTIR and SEM" by Dr. N. K. Dhapekar, HOD, Kalinga University, Chhattisgarh. Organized by Department of Civil Engineering, GHRIET, Nagpur

The program commenced with the welcome address given by Asst. Prof. Pooja Raut. The Guest Lecture was preceded by emphasized the importance XRD, FTIR and SEM in Civil Engineering Research. Dr. Dhapekar shared his experience in analyzying XRD Diffractographs. Dr. Dhapekar also share his knowledge on Interpretation of FTIR and SEM results. The overall session was very knowledgeable and motivational for the students of Civil Engineering Department. The lecture started around 11:30 and ended around 1.00 pm. The lecture was received with admiration by the students and they also found the slides appropriate. The event ended with honorarium to the guest and vote of thanks. 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 60 students attended expert lecture. The event was successfully organized by Asst. Prof. Nikhil Rathod from Civil Engineering Department under the guidance of Dr. Mahesh Raut (HOD of Civil Department) & Dr. Vivek Kapur Director, GHRIET, Nagpur.



Site visit at "Govind Enclave Heights A project by Concrete Developers" Dhaba Road Nagpur









Department of Civil Engineering, GHRIET Nagpur organized Industrial Site visit to reinforced concrete design at "Govind Enclave Heights a project by Concrete Developers" Dhaba Road Nagpur Maharashtra for the Students of 5th Semester be Civil Engineering on 30-08-2022. The main objective of this Industrial Visit was to provide an excellent opportunity to all the students of 5th Semester to get practical exposure of RCC Construction. Mr. Sanjay Paidlewar, Site Engineer gave brief information about the overall functioning & Construction of Slab, Beam Footing along with process of construction with their explanation.

Prof. Rahul Kachole, Dr. Mahesh Raut, Prof. Abhilasha Deshmukh accompanied the 110 students during visit.

The visit was successful under the guidance of Dr. Mahesh Raut Head of Civil Engineering Department and Dr. Vivek Kapur, Director , GHRIET, Nagpur.

Site Visit at "Kaprecon Sleeper Works Private Limited" Butibori, Nagpur on Dated 18-10-2022

Department of Civil Engineering, GHRIET Nagpur organized Industrial Site visit to Kaprecon Sleeper Works Private Limited, Butibori, Nagpur Maharashtra for the students of 7th Semester be Civil Engineering on 18-10-2022. The main objective of this Industrial Visit was to provide an excellent opportunity to all the students of 7th semester to get practical exposure of casting of railway sleepers. Er. Pravin Shinde Sir, Site Engineer gave brief information about the overall process of Pre-tensioning. Pre-tensioning is accomplished by stressing wires or strands, called tendons, to predetermined amount by stretching them between two anchorages prior to placing concrete. The tendons tend to regain their original length by shortening and in this process transfer through bond a compressive stress to the concrete. The tendons are usually stressed by the use of Hydraulic Jacks.

The stress in tendons is maintained during the placing and curing of concrete by anchoring the ends of the tendons to abutments that may be as much as 200m apart. The abutments other formwork used in this procedure are called prestressing bench or bed. Elongation length, steaming the concrete filled and curing after the final product with explanation.

The prestressing wire shall be stretched either individually or collectively by an approved method. However, the stretching force shall in no case exceed 75% of the minimum specified UTS of the wire.

Subject Teacher- Asst. Pooja Raut, Asst. Rahul Hinge, Asst. Aquib Ansari, Asst. Prajwalita Thamke accompanied the 75 Students during the visit. The visit was successful under the guidance of Dr. Mahesh Raut, Head of Civil Engineering Department and Dr. Vivek Kapoor, Director, GHRIET, Nagpur.









"Installation of Civista Forum 2022-2023"

Civil Department G. H. Raisoni Institute of Engineering & Technology, Nagpur organized "Installation of Civista Forum" event on 15th October 2020 from 11:00 am - 05:00 pm the installation was a successful event, and we reached our goal.

For Civista Forum Inauguration we had our Chief Guest Mr. Satish Raipure, Proprietor of Vighnaharta Consulting Engineer & A Structural and Project Management Firm. Chief Guest enlighten on the students practical approach in Civil Engineering and how to tackle for competitive exams in today's scenario. Sir also said that students should know the basics in each and every subject so as to withstand in now a days private and government sector exam. We were excited about welcoming student volunteers, committee members and faculty. Overall, the feedback we received was overwhelmingly positive, with 100 percent of students commenting favorably on the experience.

After guest speech, a badge distribution were done through hands of Chief Guest, Head of Civil Department and Faculty Members. Forum President Mr. Mayuresh Lakhe delivered a PPT on upcoming technical and non technical events for the Session 2022-23. The event was successfully organized by forum in charge Mr. Rahul Kachole & Ms. Pooja Raut along with forum members under the guidance of Mr. Mahesh Raut (HOD,CE), Dr. Vivek Kapur (Director, GHRIET) Nagpur.







"Engineer's Day" 2022-2023





Civil Department G H Raisoni Institute of Engineering and Technology, Nagpur organized "Engineer's Day" event on 15th September 2022 from 10:30 am onwards. The Engineering Community across India is Celebrating Engineers Day on 15 September every year as a remarkable tribute to the greatest Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya (Popularly Known as Sir MV). He is held in high regard as a Pre-eminent Engineer of India. "Role of Engineers in Developing India" was the theme of the event. This event is planned to create awareness to students and faculties on Role of Engineers in the Development of our nation. Inaugural function started at 11.00a.m in Eklavya Seminar Hall. The Inaugural Function started with a prayer song sung by Ms. Faluguni Gangane. Dr. Mahesh Raut welcomed the keynote speaker, Mr. Satish Raipure.

The welcome speech was followed by the lighting of lamp by the dignitaries and speaker. For Engineers's Day Celebration, we had our Chief Guest Mr. Satish Raipure, Proprietor of Vighnaharta Consulting Engineer & a structural and project management firm. Chief Guest enlighten on the students practical approach in Civil Engineering and how to tackle for competitive exams in today's scenario. The session was started at 11 a.m and during the session from 11:00 am to 11:45 am, the speaker, Mr. Satish Raipure, explained the "Role of Engineers in developing India" the event was successfully organized by forum incharge Mr. Rahul Kachole and Ms. Pooja Raut along with forum members under the guidance of Mr. Mahesh Raut (HOD, CE), Dr. Vivek Kapur (Director, GHRIT) Nagpur.

“Teacher’s Day” 2022-2023

Civil Department G H Raisoni Institute of Engineering & Technology, Nagpur organized “Teacher’s Day” event on 15th September 2022 from 11:00 am onwards at Eklavya Hall. Teacher’s Day Celebrated on 5th September each year on the occasion of birth of Dr. Sarvepalli Radhakrishnan who was known as an amazing teacher of his time. Small function was organized in our school on this occasion for our beloved teachers. The function started when a small speech was given by Ms. Falguni Gagne, where she explained the importance of teachers and how teachers are the builders of nation. The function started with lightning of a candle in front of Maa Saraswati’s Idol who is known as symbol of knowledge and peace by the dignitaries and speaker. The session was started at 11 a.m. After that on behalf of all the students a cake cutting ceremony was celebrated on honor of all beloved teachers. All the faculties were felicited with the small gifts by students. The event was successfully organized by forum incharge Mr. Rahul Kachole & Ms. Pooja Raut along with forum members under the guidance of Mr. Mahesh Raut (HOD,CE), Dr. Vivek Kapur (Director, GHRIET) Nagpur.





Content Beyond Syllabus

Civil Engineering Department of G H Raisoni Institute of Engineering & Technology, Nagpur organized content beyond syllabus for Eight Semester section A and B of B.E students on 15th May 2020 for the subject Irrigation Engineering. Basically the lecture conducted for the subject Irrigation Engineering on topic “Automatic Irrigation System” delivered by Pooja Raut, Asst. Prof., Civil Department.

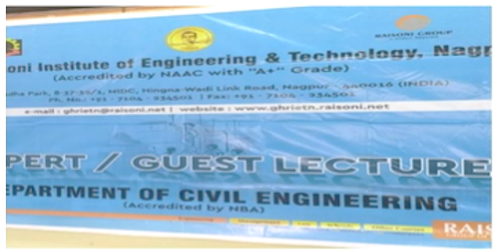
Content beyond syllabus helps to bridge the gap between syllabus & recent trends in Engineering and Technology. Online lecture on topic “Automatic Irrigation System” was given to students. The lecture was very informative & good experience for the students and answered to all queries put up by the students to their full satisfaction. Total 71 students attended this content beyond syllabus lecture.

Guest Lecture on “Canal Irrigation System” by Dr. Maya Ray, Associate Professor GCE, Dhanbad Organized by Department of Civil Engineering, GHRIET, Nagpur



The Department of Civil Engineering organized a Guest Lecture on “Canal Irrigation System” for 5th Semester B. Tech students on 02nd November 2022 in online mode through webex platform. The Guest Speaker was Dr. Maya Ray, Associate Professor, Department of Civil Engineering, GCE Dhanbad. Dr. Maya Ray has expertise in Hydraulic and Water Resources Engineering, Hydraulic Structures, Computational Hydraulics, Pipeline Transient, Free Surface Flow and has an experience of 20 years including 10 years’ experience in academics. The program commenced with the welcome address by Ms. Pooja Raut Madam. Dr. Maya Ray then started his lecture with some basic questions on Irrigation and Canal Irrigation. She then explained about the types of Canals and their classification. She used Power Point Presentation approach during the Lecture.

Guest Lecture on “Redistribution of Moment in Reinforced Concrete Beam ” for 7th Sem. on 17/10/2022 on Online Mode









Guest Lecture on "Redistribution of moment in Reinforced Concrete Beam" conducted by Department of Civil Engineering for Final Year Students from 17th October 2022 on online mode through webex platform. The speaker was Dr. Govardhan Bhatt, Assistant Professor, NIT Raipur. He has a total 10 years of Teaching Experience. Basically the lecture conducted on subject advanced concrete structure on the topic"Redistribution of Moment in Reinforced Concrete Beam" organized by Prof. P. A. Thamke under the guidance of Dr. M. Raut (HOD of Civil Department). The program commenced with the welcome address given by Prof. P. A. Thamke and then the speaker gave his presentation on the topic Redistribution of Moment in Reinforced Concrete Beam. He explained to the students about the basics of Analysis, Design and Redistribution of Moment in Concrete Beam with one solved numerical etc. The lecture was very informative for the students and he answered all queries put up by the students to their full satisfaction. Total 60 students attended G this Guest Lecture. Prof P. A. Thamke gives the vote of thank for this event.

Guest Lecture on "Turbulent Flow in Pipes" by Dr. Abhijit D. Lade, Asst. Prof., VNIT Nagpur organized by Department of Civil Engineering, GHRIET, Nagpur









The department of Civil Engineering organized a Guest Lecture on "Turbulent Flow in Pipes" for 5th Semester B. Tech. Students on 19th October 2022 in offline mode. The Guest Speaker was Dr. Abhijit D. Lade, Assistant Professor, Department of Civil Engineering, VNIT Nagpur. Dr. Lade has expertise in Hydraulic Engineering, Turbulent Flow, Hydraulic and Mathematical Modelling and has an experience of more than six years including more than five years' experience in academics.

The program commenced with the welcome address by Dr. Ankur Kapoor and felicitation by Dr. Mahesh V. Raut, Head Civil Engg. Dept. Dr. Lade then started his lecture with some basic questions on Laminar Flow. He then explained about the difference between Laminar and Turbulent Flow by showing a video. Dr. Lade used Power Point Presentation as well as chalk and talk approach during the lecture. He showed various Graphics and Videos to elaborate the topic in detail. The reynolds averaged navier stokes model was very well explained and discussed during the lecture. Dr. Lade also shared his experimental setup photographs while working on his Ph. D. research topic at IIT Guwahati. he showed how an acoustic doppler velocimeter can be used to capture velocity of flow in three dimensions. Prandlt's mixing length theory was also explained at the end of the lecture. The overall session was very knowledgeable & motivational for the students of Civil Engineering Department. Students also interacted well with the expert and Dr. Lade was able to solve all the queries raised by the students. In the end Dr. Lade.

The lecture started at 10.50 am and ended at around 12.45 pm. The lecture was received with admiration by the students and they also found the slides appropriate. The event ended with a vote of thanks.

The lecture was very informative and good experience for the students and the expert answered to all queries put up by the students to their full satisfaction. Nearly 75 students attended the lecture. The event was successfully organized by Dr. Ankur Kapoor in the Department of Civil Engineering under the guidance of Dr. Mahesh V. Raut (HOD of Civil Department) GHRIET, Nagpur.

Expert Talk on "Filling E-tendering on Government Portal" by Er. Harshal Gahukar (Director) R A H Infraprojects & Consultants (India) Pvt Ltd, Nagpur Organized by Department of Civil Engineering, GHRIET, Nagpur

The Department of Civil Engineering organized expert talk on "E-tendering" for 7th semester B.E students on 16th November 2022 at offline mode Eklavya Hall (203). The Guest Speaker was Er. Harshal Gahukar (Director) R A H Infraprojects & Consultants (India) Pvt. Ltd., Nagpur.

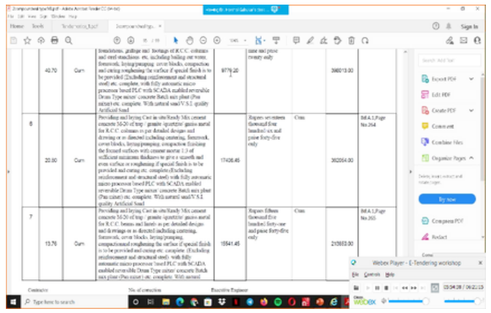
The Program commenced with the welcome address given by Asst. Prof. Rahul Hinge. The Guest Lecture was preceded by emphasized the importance of how to fill tender on government portal and various types of tendering. He explained about various tender documents attached with tender form and procedure for e-tendering. The overall session was very knowledgeable and motivational for the students of Civil Engineering Department.

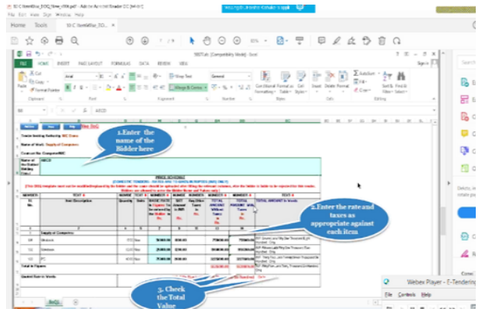
The lecture started around 03:00 pm and ended around 05:00 pm. The lecture was received with admiration by the students and they also found the slides appropriate. The event ended with honorarium to the guests and vote of thanks.

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 60 students attended expert lecture. The event was successfully organized by Asst. Prof. Rahul Hinge from Civil Engineering Department under the guidance of Dr. Mahesh Raut (HOD of Civil Department) & Dr. Vivek Kapur Director, GHRIET, Nagpur.







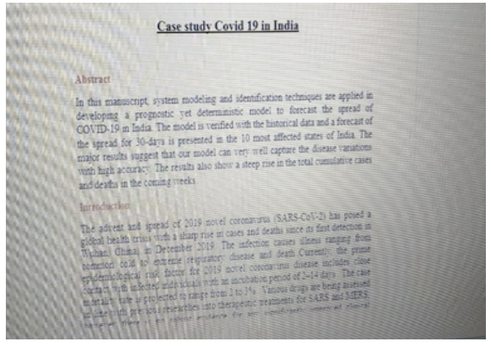


Case Study Event (Civista Forum) Organized by Department of Civil Engineering, GHRIET, Nagpur

Case Study Event was held on 10th November 2022 from 10:45 am-12:30 pm at G H Raisoni Institute of Engineering and Technology.

A Case Study is a written account that gives detailed information about a person, group, or thing and their development over a period of time. A Case Study has also been described as an intensive, systematic investigation of a single individual, group, community or some other unit in which the researcher examines in-depth data relating to several variables.

The Case Study Event is a new, innovative idea to showcase the convincing skills of the students which will help them in building their business relationships in future. Students showed their skills before judges in a very impressive manner. Thanks to the honourable director Dr. Vivek Kapoor Sir and respected HOD Dr. Mahesh Raut Sir for guiding us to make this event a great success. The event was a great success in all aspects.

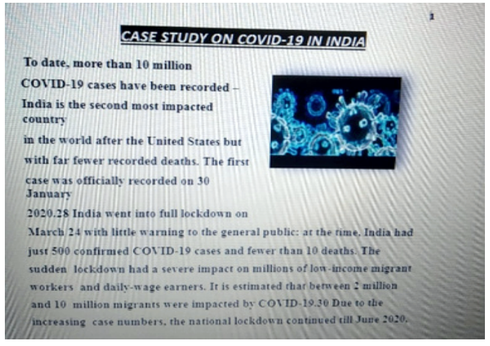

Case study Covid 19 in India

Abstract

In this manuscript, system modeling and identification techniques are applied in developing a prognostic yet deterministic model to forecast the spread of COVID-19 in India. The model is verified with the historical data and a forecast of the spread for 30-days is presented in the 10 most affected states of India. The major results suggest that our model can very well capture the disease situations with high accuracy. The results also show a steep rise in the total cumulative cases and deaths in the coming weeks

Introduction

The advent and spread of 2019 novel coronavirus (SARS-CoV-2) has posed a global health crisis with a sharp rise in cases and deaths since its first detection in Wuhan, China, in December 2019. The infection causes illness ranging from moderate cold to severe respiratory disease and death.Currently, the prime epidemiological risk factor for 2019 novel coronavirus disease includes close contact with infected individuals with an incubation period of 2-14 days. The case fatality rate is projected to range from 1 to 3%. Various drugs are being assessed in multiple trials for repurposing into therapeutic treatments for SARS and MERS. Besides, there is no vaccine available for


CASE STUDY ON COVID-19 IN INDIA

To date, more than 10 million COVID-19 cases have been recorded – India is the second most impacted country in the world after the United States but with far fewer recorded deaths. The first case was officially recorded on 30 January 2020.28 India went into full lockdown on March 24 with little warning to the general public: at the time, India had just 500 confirmed COVID-19 cases and fewer than 10 deaths. The sudden lockdown had a severe impact on millions of low-income migrant workers and daily-wage earners. It is estimated that between 2 million and 10 million migrants were impacted by COVID-19.30 Due to the increasing case numbers, the national lockdown continued till June 2020.

Expert Talk on “Placement Orientation Programme”

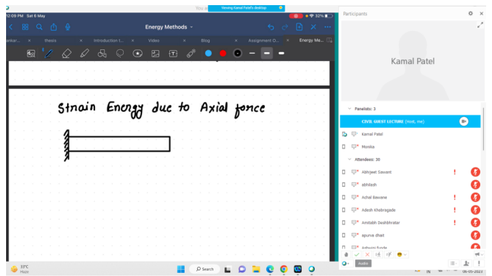
The Department of Civil Engineering organized Expert talk on “Placement Orientation Program” for VI semester B. Tech students A & B section, on 6th May 2023 at offline mode at Room No 101. The speaker was Dr. Gurupal Singh, Dean of Industry Relations Placement Department.

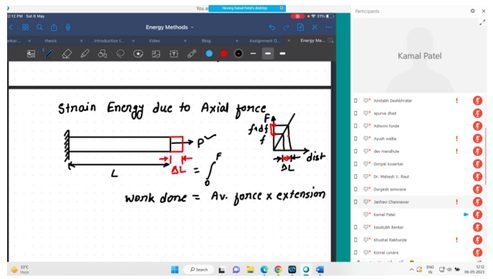
The lecture was very informative and good experience for the students, and he answered to all queries put up by the students to their full satisfaction. Total 88 students attended Orientation Program.





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 & Technology, Nagpur organized Content beyond Syllabus on the topic "Cable & 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 & 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 & we were excited about welcoming student volunteers. Overall, the feedback we received was overwhelmingly positive, with 100 % 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