

# PAVE PULSE

Perspectives, Advancements &  
Visionary Explorations in Civil Engineering



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**TULSIRAMJI GAIKWAD-PATIL**  
**College of Engineering & Technology**

Approved by AICTE, New Delhi and Govt. of Maharashtra | An ISO 9001:2015 Certified Institution  
Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur



— AN AUTONOMOUS INSTITUTE —

## Vision of the Institute

To emerge as a learning Center of Excellence in the National Ethos in domains of Science, Technology and Management.

## Mission of the Institute

To strive for rearing standard and stature of the students by practicing high standards of professional ethics , transparency and accountability.

To provide facilities and services to meet the challenges of Industry and Society.

To facilitate socially responsive research, innovation and entrepreneurship.

To ascertain holistic development of the students and staff members by inculcating knowledge and profession as work practices.

## Vision of the Department

To forge learning Center of Excellence in the field of Civil Engineering.

## Mission of the Department

To promote academic and ethical development while upholding high standards.

To provide advance facilities with the skills needed to face Industry and societal challenges.

To promote socially responsible research, innovation, and entrepreneurship in the field of Civil Engineering.

To foster the holistic development of both students and faculty members by inculcating a blend of knowledge and professional work methods for overall progress.



## PEO's

Graduates will be able to

- PEO1** : Analyse and design civil engineering structures while keeping social awareness and ethical responsibilities in mind.
- PEO2** : Demonstrate leadership abilities in supporting sustainable practices in Civil Engineering.
- PEO3** : Exhibit a commitment to lifelong learning, staying updated on developing technologies and industry trends, and adjusting to the evolving world of Civil Engineering.
- PEO4** : Executing Proficiency in creative problem-solving and innovation, demonstrating an entrepreneurial attitude within the context of Civil Engineering.

## PSO's

Graduates will be able to

- PSO 1:** Competency to manage large infrastructure projects while providing safe and cost-effective project execution, along with expertise of rapid construction and project management.
- PSO 2:** Plan, execute, manage, maintain and rehabilitate civil engineering systems and processes.
- PSO 3:** Apply innovative construction and management techniques to compete with modern structural design and construction within the budget and time frame.



## PO's

- 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 analyze 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 modeling 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 sustainability: 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 multidisciplinary 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 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.



Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was established in the year 2007 by Vidarbha Bahu-uddeshiya Shikshan Sanstha (VBSS), a registered society. It is a self financed Private Engineering College, which is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Nagpur and is approved by All India Council for Technical Education, New Delhi. Also college is approved by Directorate of Technical Education (DTE), Mumbai, Maharashtra State. The Institute is Accredited with A+ (3.32 CGPA) by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC). An Autonomous Institute affiliated to RTM Nagpur University, Nagpur.

The College offers four years UG programs in Nine disciplines of engineering viz. Bio-Technology (B.Tech), Aeronautical Engineering (AE), Computer Science and Engineering (CSE), Information Technology (IT), Electronics and Communication Engineering (ECE), Mechanical Engineering (ME), Civil Engineering (CE), Electrical Engineering (EE) Computer Science and Engineering (Data Science).

TGPCET offers Eight PG programs in engineering viz. Computer Science and Engineering (CSE), Integrated Power System (IPS), Structural Engineering (SE), Electronics and Communication Engineering (ECE), Artificial Intelligence, Machine Learning (AIML) & Mechanical Engineering design (MED), Aeronautical Engineering (AERO) and Electric Vehicle (EVT) and also offers Two years PG programs in Master of Business Administration (MBA) as well as Two years Master in Computer Application (MCA).

In addition TGPCET conducts three years Diploma programs in six disciplines of engineering such as Civil Engineering (CE), Mechanical Engineering (ME), Computer Science and Engineering (CSE) and Electrical Engineering (EE), Electronics and Communication Engineering (ECE) and Information Technology (IT).

College is located in the midst of Multimodal International Cargo Hub and Airport (MIHAN) and also in the vicinity of Butibori Industrial area, Nagpur.

This sanstha is started by the dedicated and renowned academicians genuinely committed to impart quality technical education to the students, who are aspiring for carrier in Engineering, Technology and Management.

College offers additional courses beyond syllabus to expose the students towards the industrial climate by conducting courses in C++ with PYTHON, C#.NET, Java, Oracle-SQL and Administration, CCNA, PLC SCADA, MATLAB, AUTOCAD, STAAD PRO, CREO, PHP.

The college has signed MoU with Charusat University, Gujrat Dr. Panjabrao Deshmukh Krishi Vidyapeeth (PDKV), Akola and Vignan's University, Guntur to excel the academic and research capability of staff and students in the emerging fields of Science, Engineering and Agriculture.



## About us

TGPCET develops the attitude towards equality, fraternity, liberty, justice and respect for all sections of society. TGPCET grows students in the domain of latest scientific and technological areas by introducing ATMEL, USA, ROBOTICS and embedded programs for enhancing inter disciplinary research fields.

College has continuously risen in popularity amongst the aspiring students and parents and has become a preferred choice for taking admissions due to availability of elegant and vast infrastructure facilities, dedicated staff members, who provides holistic quality education.

The college is guided by its Advisory Committee consisting of Eminent Academician from Prestigious Institutes and also by the Renowned Industrialists. The institute works towards excellence in imparting quality technical education by motivating students to become a trend-setter to acquire Global leadership. For implementing the quality policy, an action plan is collectively prepared by the Principal and HoDs as per the vision of the Management and the Management regularly interacts with the Principal to review the implementation process of the quality plans.

ABP News had honored with an Award to TGPCET as “An Outstanding Institute (West)” in the year 2015. It also got feather in the cap in Academics by getting an Award from Big Research as “A Most Promising Engineering College” in the Vidarbha Region of Maharashtra in the year 2012.







## About Department

Department of Civil Engineering was established in 2009 with a degree course in Civil Engineering with an intake of 120 students for graduate course & later on intake of 24 students for Post graduation in Structural Engineering and 60 students for Diploma in civil Engineering. Civil Engineering is considered as one of the oldest engineering disciplines. Civil Engineering involves planning, designing and executing structural works. The profession deals with a wide variety of engineering tasks including designing, supervision and constructional activities of public works like roads, bridges, tunnels, buildings, airports, dams, water works, sewage systems, ports etc. and offers a multitude of challenging career opportunities. The Department is dedicated to consultancy, educational research, and an exposure of students to the trends of development in the field of Planning, Designing & Execution to meet the needs of the construction industry, consultancies and research organizations in India and abroad. The department of Civil Engineering in TGPCET possesses a faculty team of experienced & well-qualified professors, well acquainted with deep subject knowledge, commitment to disseminate quality & value-based education in technical subjects. All faculties work hard on student to meet the requirement of market and groom the student to be job friendly.

## Way of Learning:

Beyond the regular academic classes and activities, the department also is active in: -

1. Class room demonstrations, videos, LCD presentations of their course modules and latest trends in civil engineering supplement the curriculum.
2. A wide Scope for research & development is encouraged to provide better employment opportunities.
3. IEl student's chapter is installed through which lectures of eminent engineers, workshops, seminars and short term training programs are organized. IEl also provides funds for the research activities.
4. Field visits are arranged for the early exposure to industries for students.

## Major Groups / Areas:

1. Structural Engineering.
2. Computer Aided Analysis and Design.
3. Concrete Technology.
4. Surveying
5. Project feasibility.

## Expertise in Research and Consultancy:

1. Analysis and Design of Structures.
2. Testing of Concrete, Building materials and Metals.
3. Concrete Composites, Mix Design etc.





## Dear Esteemed Readers,

It is with great pleasure and pride that I extend my warmest greetings to you through the pages of this esteemed technical magazine. As the Head of the Civil Engineering Department, I am thrilled to share some of the extraordinary accomplishments that our department has achieved over the past year.

Our commitment to excellence in education and research is reflected in the numerous accolades earned by both our students and faculty members. One noteworthy achievement is the successful completion of NPTEL (National Programme on Technology Enhanced Learning) courses by a significant number of our students. This accomplishment not only showcases the dedication of our students but also speaks volumes about the quality of education and resources provided by our department.

In addition to individual successes, our department takes pride in securing copyrights for innovative research and projects undertaken by our faculty members. These copyrights not only validate the uniqueness of our contributions but also pave the way for further advancements in the field of civil engineering.

I am delighted to announce that our department has consistently produced university toppers, exemplifying the academic prowess of our students. This is a testament to the high standards we maintain in our teaching methodologies, as well as the continuous support provided to our students to help them excel in their academic pursuits.

Furthermore, our faculty members have actively engaged in cutting-edge research, contributing significantly to the body of knowledge in civil engineering. Their research endeavors have not only garnered attention within our academic community but have also made a valuable impact on the wider field.

As we celebrate these achievements, it is important to recognize that they would not have been possible without the collective efforts of our dedicated students, passionate faculty members, and the unwavering support from the institute administration and management.

Looking ahead, we remain committed to fostering an environment of innovation, excellence, and continuous learning within our department. We are determined to build on our successes and overcome new challenges, with the ultimate goal of contributing meaningfully to the advancement of civil engineering.

I extend my heartfelt gratitude to everyone who has been a part of this incredible journey, and I invite you to delve into the pages of this magazine to explore the depth of our achievements and the promising future that lies ahead.

Warm regards,

**Dr. Snehal Abhyankar**

Head of the Civil Engineering Department  
Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur



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## INVESTIGATION OF COAL BOTTOM ASH AS REPLACEMENT OF CEMENT IN CONCRETE: REVIEW

Sneha K. Khobragade\*1, Vaishnavi Satpute\*2, Vaishali Sharnagat\*3, Yogita Gaikwad\*4, Akash J. Palandurakar\*5, Mohitgiri L. Goswami

### ABSTRACT

Coal bottom ash (CBA) is a waste material produced by the coal based thermal powers plant. In India annual production of CBA is 25 Millions Tonnes. As compare to other countries more production in india. The utilization of coal bottom ash in civil engineering is one of the most promising options to reduce, or possibly eliminate, the environmental and social problems related to the disposal of bottom ash. CBA has the potential as cement replacements in concrete Using coal ashes (CBA), sustainable and green concrete can be made having advantages, such as reducing the final cost production of concrete and utilizing less natural resources. concrete mix was prepared at a replacement rate of 10% and 15% by weight of cement. CBA has a good potential is to be utilize as cement replacement in concrete which will reduce the construction cost and minimize the environmental burden.

**Keywords:** CBA, Cement Replacement, Green Concrete, Cost Reduction.

### CONCLUSION

The utilization of CBA for sustainable concrete in construction. This paper reviewed previous work that had been on the chemical & physical properties of coal bottom ash from thermal power plant. It was observed that the CBA has porous nature, so it cannot be used as a cement replacement, but after grinding it contains following pozzolanic properties and now it's can be used. It's conclude that 1. CBA show flow density, high water absorption, irregular & spherical shape. 2. CBA has good potential is to be utilized as cement replacement in concrete which will reduce the construction cost and minimize the environmental burden. 3. The pozzolanic activity of coal bottom ash is similar to fly ash. 4. The specific gravity of CBA ranges between 1.39-2.47. it depends on the chemical composition. 5. It can conclude that CBA gives good strength after grinding hence it is acceptable in concrete.



## INVESTIGATION OF CHARCOAL AS A FILTER MATERIAL IN WATER TREATMENT

Aasif Baig\*1, Vrushabh Zodape\*2, Dewanand Kosare\*3, Dhiraj Meshram\*4,  
Pallavi Raut\*5, Yogita Kolte\*6, Akanksha Muneshwar\*7

### ABSTRACT

Energy and water are essential factors to any civilization. Both are important for artificial, agrarian and societal development. The Earth is covered by 75% water, yet one of the world's top most issues is a lack of drinking water. Water is a vital element on earth and is veritably essential to sustain life, and a satisfactory and safe force must be available to all. But currently, the water is getting defiled due to industrialization which produces large quantum of wastes which contains poisonous chemicals and adulterants which leads to numerous water related conditions. They contain adulterants similar as sulphur, asbestos, nitrates and dangerous chemicals. In numerous developing countries, people walk numerous long hauls to reach a source of water that isn't inescapably drinkable. Water can contain dirt, minerals, chemicals and other contaminations that make it smell and taste bad. Some of these pollutants can jeopardize health, especially when they include bitsy organisms and bacteria that can beget serious illness. Humans can live for weeks without food, but only a many days without water (Water.org Inc., 2009). Numerous people in developing countries slightly have access to any water source at all and for those that do, the water is fully unprintable and complaint- ridden and conclusion.

**Keywords:** Water Filtration, Charcoal Filter, Low-Cost Filtration, Sustainable Water Treatment, Importance Of Sustainable Water Treatment.

### CONCLUSION

The study concludes that the use of charcoal as a filtering material in water treatment is a cost-effective and sustainable solution, particularly for developing countries with limited access to clean water. However, the limitations of the technology, such as its limited scalability and effectiveness in removing certain contaminants, need to be taken into consideration when implementing it as a solution. Further research and evaluation are needed to optimize the use of charcoal as a filtering material in water treatment.





## Student Corner: Best Student Projects

Sr. No.	Name of Project Group Leader	Group Members Name	Guide Name	Title of Project	Remark
1	Krupandan S Jangam	1. Krupandan S Jangam 2. Karan S Biswas 3. Roshan R Jambale 4. Roshan L Gaikwad 5. Ratan S Sarkar 6. Litik B Lilhare	Prof. Sanjay Bhadke	Durability Parameters of Concrete by using Bubble Deck Technology and its Validation	Innovative
2	Sneha Khobragade	1. Sneha Khobragade 2. Vaishali Sharnagat 3. Vaishanvi Sathpute 4. Yogita Gaikwad 5. Akash Palandurkar 6. Mohitgiri Goswami	Prof. Aasif Baig	Environmenta l Effects on Concrete by using Industrial Waste	Industry Sponsored
3	Amrapali Shelare	1. Amrapali Shelare 2. Ashwini Hiware 3. Rubi Kotangle 4. Grishma Janbandhu 5. Harsh Bopche 6. Shital Ukey	Prof. Mohitsing h Katoch	Convesrion of Plastic Waste into usable Fuel using Pyrolysis Techniques	Innovative
4	Abu Lobana Zaidi	1. Abu Lobana Zaidi 2. Pratiksha Gedam 3. Rajendra Bhelave 4. Pranali Belpande 5. Chaitanya Kotangle 6. Achal Lonare	Prof. Divyani Harpal	A Proposed Low Cost House Under Govt. scheme Awas Yojna	Social
5	Vrushabh Zodape	1. Vrushabh Zodape 2. Devanand Kosare 3. Dhiraj Meshram 4. Pallavi Raut 5. Yogita Kolte 6. Akanksha Muneshwar	Prof. Aasif Baig	Investigating of Charcoal as a filter material in water treatment	Innovative



## Study of Properties of Coal Bottom Ash and Waste Foundry Sand and its Use in Concrete

Aasif Baig and Valsson Varghese

### Abstract

India produces abundant of industrial waste like bottom ash (CBA) and waste foundry sand (WFS) whose productive use or recycling and reuse is the best option available to reduce the threat caused by their disposal on environment. This research work aimed to find possibility of using both these waste materials in concrete for which study of characteristics of the materials is important. It is found that CBA needs to be processed before using in concrete. The results of Grounded CBA & WFS resemble within its permissible limit, and thus, these waste materials can be used as a substitute of cement and sand, respectively. Experiments are conducted on concrete containing CBA & WFS in the proportion of 10 and 6%, respectively. Through the experiment, we concluded that processed CBA & WFS can be partially replaced for cement and sand, respectively.

**Keywords:** Physical properties · Chemical properties · Mechanical properties · Coal bottom ash · Waste foundry sand

### Conclusion

The physical chemical and mechanical properties of CBA and WFS are estimated and studied in comparison with Cement and Sand.

The results of CBA and WFS resemble within its permissible limit and thus these waste materials can be used as a substitute of cement and sand, respectively.

As waste by-products from industries causes various environmental hazards. Uses of these in building materials would help in reduction of stresses on environment.

Maximum compressive strength of concrete is obtained at 6% replacement of sand with WFS, and percentage increase is found to be 14.19, 18.64, and 23.87% at 7, 14, and 28 days, respectively.

Optimum ratio of replacement of CBA with cement along with fixed 6% replacement of WFS with sand is obtained at 10% though CBA can be replaced till 16% as the compressive strength of concrete is more than conventional concrete.



Maximum increase in strength of concrete is 21.12 and 20.89% than conventional concrete for placement of 6%WFS and 10% CBA at 14 and 28 days, respectively. The 7-day compressive strength of concrete decreases by 15.89% than conventional concrete which indicates that CBA delays the early rate of gain of strength though its long-term rate of gain is more.

Curing conditions can greatly affect the water absorption of concrete. As the concrete was exposed to air curing, it exhibited low water absorption. Also it can be interpreted that surface water absorption was higher than internal water absorption and does not depend on curing conditions. As a whole, surface water absorption can Study of Properties of Coal Bottom Ash and Waste Foundry ... 163 be applied to predict some performance of concrete, including compressive strength, permeability, resistance to sulfate attack, and chloride ion diffusion. Thus, the use of WFS and processed CBA is strongly recommended in concrete as the results are favorable as compared to conventional concrete and would eventually save the environment from land filling of these waste materials. Also its utilization will help the industry to follow the government norms of reusing the industry waste coal bottom ash.



# STUDY OF MODIFIED BOLOMEY'S EQUATION FOR CONCRETE MADE WITH PARTIAL USE OF COAL BOTTOM

Aasif M. Baig<sup>1</sup>, Valsson Varghese<sup>2</sup>

## Abstract

Many researchers are working to predict strength of concrete to compare it with experimental results. When blended cement is used to prepare concrete then it gets more difficult and challenging for predicting the compressive strength of concrete. Bolomey's equation is one of the methods to determine the compressive strength. In this work Bolomey's modified equation has been used to predict strength as Coal bottom ash has been used as a partial replacement of cement in concrete production. The predicted results are compared with the experimental data of test where the high R-square value indicates the accuracy of the experimental data and also an equation is suggested to predict compressive strength in future. This work is very helpful for those who have a good set of experimental data and need to verify and predict the compressive strength of concrete. This work enhances the importance of use of statistical analysis in research related to concrete production.

## Keywords

Replacement, Coal bottom ash, Bolomey's equation, Prediction, Compressive strength

## Conclusion

- The experimental test results for 0.5 w/c ratio and replacement of 5%, 10% and 15% are found to be precise and accurate as they correspond well to the predicted results obtained by use of modified Bolomey's equation.
- The constants used in Modified Bolomey's Equation need to be again revised and some more research is required to predict the strength in future. This is specially of more importance as the cement has CBA substitution i.e. blended cement is used to prepare concrete.
- The experimental results for 0.4 w/c ratio has to be tested again taking into consideration the specific surface area of CBA and water absorption as well as they may be the reason for the difference in experimental results.
- More prediction formulae can be studied to verify experimental data of strength with more sets of experimental values and also to suggest an empirical formula to predict strength in future.



## Research corner: Faculty Publications (2022-23)

Sr. No.	Name of the Faculty	Title of Paper	Volume / Issue ISSN/ISBN/DOI	Details of Journal	Indexing (Web of Science/Scopus /UGC Care/Peer Reviewed)
1	Mr. Sanjay Bhadke	Structural assessment of silo structure using NDT technics .	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
2	Mr. Sanjay Bhadke	An examination of the analysis and research of the factors influencing the design of prefabricated buildings .	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
3	Mr. Sanjay Bhadke	A review, comparative study of even and uneven story height of high -rise structure by using time history analysis	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
4	Mr. Sanjay Bhadke	An examination of the analysis and research of the factors influencing the design of prefabricated buildings	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
5	Mr. Sanjay Bhadke	Structural Assessment of Silo Structure Using NDT Technics	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed





<b>6</b>	Mr. Sanjay Bhadke	An examination of the analysis and research of the factors influencing the design of prefabricated buildings	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>7</b>	Dr. Amey Khedikar	Seismic response reduction of R.C.structures using multiple types of bracing framework .	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>8</b>	Dr. Amey Khedikar	A Review of "Effect on Behaviour of Structure with types of opening at multiple locations with variation in the size of the shear wall"	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>9</b>	Dr. Amey Khedikar	A nalysis and design of a 24 m long span steel girder with the load of a special vehicle in mind	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>10</b>	Mrs. Priyanka Petkar	An examination of the seismic response of a retrofitted multistoried building using infill bracing and shear wall in soft storey .	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed



<b>11</b>	Mrs. Priyanka Petkar	Seismic analysis of elevated circular water tank with different sections and orientation of the column	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>12</b>	Mrs. Priyanka Petkar	Analysis and design for confined ferrocrete cross beam and its bending behavior.	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>13</b>	Mrs. Priyanka Petkar	Comparative analysis of steel roof truss using staddpro v8i	International Research Journal Of Modernization in Engineering Technology and Science	e-ISSN: 2582-5208	Peer-Reviewed, Open Access, Fully Refereed International Journal)
<b>14</b>	Mr Aasif Baig	A ssessment of systemic seismic vulnerability and risk in urban infrastructure and utility systems: a review .	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>15</b>	Mr Aasif Baig	Investigation of coal bottom ash as replacement of cement in concrete : review	International Research Journal Of Modernization in Engineering Technology and Science	e-ISSN: 2582-5208	Peer-Reviewed, Open Access, Fully Refereed International Journal)
<b>16</b>	Mr Aasif Baig	Investigation of charcoal as a filter material in water treatment	International Research Journal Of Modernization in Engineering Technology and Science	e-ISSN: 2582-5208	Peer-Reviewed, Open Access, Fully Refereed International Journal)



<b>17</b>	Mr Aasif Baig	A nalysis of vulnerary aspects of R. C. structure under shock wave condition: A Review.	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>18</b>	Mr Aasif Baig	Analysis and Design of G+ 20 multi storied building with and without shear walls by changing orientation of column: A Review	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>19</b>	Mr Aasif Baig	Review of the sustainable use of industrial waste to replace the fine aggregate used to prepare concrete	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>20</b>	Ms.Divyani Harpal	A R eview on seismic analysis of building with and without shear wall on different sloping ground angles for zone five	Tech -Chronical (An International E - journals on emerging trends in science technology and management	ISSN No .2454-1958	Peer Reviewed
<b>21</b>	Ms.Divyani Harpal	An overview of seismic analysis of vertical geometric irregular RCC -	Tech -Chronical (An International E - journals on emerging trends in science technology	ISSN No .2454-1958	Peer Reviewed



		framed buildings	and management		
22	Dr Sandeep Gaikwad	A Review on “Analysis and applications of an earthquake resistant non engineered building construction”	Tech-Chronical (An International E-journals on emerging trends in science technology and management	ISSN No.2454-1958	Peer Reviewed
23	Mr. Mohitsingh Katoch	Analysis and Design of Composite Bridge and there Design Criteria	Tech-Chronical (An International E-journals on emerging trends in science technology and management	ISSN No.2454-1958	Peer Reviewed
24	Mr. Mohitsingh Katoch	Sustainable Treatment of Wastewater Using Natural Coagulants Based on Plants Seeds	International Journal for Modern Trends in Science and Technology, Volume 9, Issue 06, June 2023.	ISSN 2455-3778	UGC Approved journals (ID-43137)
25	Mr. Mohitsingh Katoch	A Review on “Analysis and applications of an earthquake resistant non engineered building construction”	Tech-Chronical (An International E-journals on emerging trends in science technology and management	ISSN No.2454-1958	Peer Reviewed
26	Mr. Mohitsingh Katoch	Analysis and Design of Composite Bridge and there Design Criteria	Tech-Chronical (An International E-journals on emerging trends in science technology and management	ISSN No.2454-1958	Peer Reviewed



## Research corner: Student Publications

Sr. No.	Name of Students	Activities	Details of Activity	organised by & Date of Conduction	Awards & Prizes
1	Akshara Panjabrao Chapke	Paper Publication	Concept & Analysis Of Pre Engineered Steel Buildings	IC -DTSDG - 22 (Dec 22 - 23)	Participation
2	Gayatri Prakash Badole	Paper Publication	Analysis Of Partially Braced Multistoreyed Building Frames Subjected To Gravity And Earthquake Loads	IC -DTSDG - 22 (Dec 22 - 23)	Participation
3	Karishma Indal Meshram	Paper Publication	Study Of Design Of Precast Superstructure	IC -DTSDG - 22 (Dec 22 - 23)	Participation
4	Nayana Bhimrao Sangole	Paper Publication	Analysis and Design of G+4 T.G.P.C.E.T. Nagpur located Building in II zone of India	IC -DTSDG - 22 (Dec 22 - 23)	Participation
5	Nikita Rajkumar Patil	Paper Publication	Steel Fibre Reinforced Concrete	IC -DTSDG - 22 (Dec 22 - 23)	Participation
6	Rucha Ravindra Bhagat	Paper Publication	Earthquake Resistant Non -Engineered Building Construction For Rural Area	IC -DTSDG - 22 (Dec 22 - 23)	Participation
7	Sneha Jaising Kambale	Paper Publication	Steel Slag Ingredient For Concrete Pavement	IC -DTSDG - 22 (Dec 22 - 23)	Participation
8	Sonali Vinod Bhoyar	Paper Publication	Retrofitting And Rehabilitation Of Structures	IC -DTSDG - 22 (Dec 22 - 23)	Participation
9	Nikesh Bhagwat Lothe	Paper Publication	Comparative Studies Of G+6 Commercial Building In ETABS	IC -DTSDG - 22 (Dec 22 - 23)	Participation





10	Nishant Suresh Tembhone	Paper Publication	Seismic Analysis of Regular & Vertical Geometric Irregular RCC Framed Building	IC -DTSDG - 22 (Dec 22 - 23)	Participation
11	Sameer Chandrakant Gattewar	Paper Publication	Replacement of Quarry Sand with Natural Sand in Concrete	IC -DTSDG - 22 (Dec 22 - 23)	Participation
12	Sudhanshu C. Bujade	Paper Publication	Bridge Constructions Using Composite Structures And Their Safety Measures	IC -DTSDG - 22 (Dec 22 - 23)	Participation
13	Suhail Yousuf	Paper Publication	Analysis And Research Of Factors Influencing The Design Of Prefabricated Building	IC -DTSDG - 22 (Dec 22 - 23)	Participation
14	Vikesh Komal Ramteke	Paper Publication	Comparision In RCC Structure In Submersible Bridges	IC -DTSDG - 22 (Dec 22 - 23)	Participation
15	Ganesh Khadse	Paper Publication	Analysis And Design Of G+9 Building In Different Seismic Zone In India	IC -DTSDG - 22 (Dec 22 - 23)	Participation
16	Mustafa Shabbir Bohra	Paper Publication	Strengthening of Low Ductile Reinforced Concrete Frames Using Steel X-Bracings With Different Details	IC -DTSDG - 22 (Dec 22 - 23)	Participation
17	Pratiksha Gedam, Rajendra Bhelave, Pranali Belpande, Chaitanya Kotangale, Achal Lonare, Prof.Divyani Harpal	Paper Publication	A Proposed Low - Cost House Under Government Scheme Aawas Yojana	IC -DTSDG - 22 (Dec 22 - 23)	Participation



18	Vaishali S Sharnagat, Vaishnavi N Satpute, Yogita B Gaikwad, Akash J Palandurakar, Mohitgiri L Goswami, Prof. Aasif Baig	Paper Publication	Environmental Effect on Concrete by Using Industrial Waste	IC -DTSDG - 22 (Dec 22 - 23)	Participation
19	Kalyanis. Sadanshiv, Sejal Temburne, Sitara Nagrale, Tanushree P. Gurve , Rani Damhare, Prof. Amey Khedikar	Paper Publication	Design of Reinforced Masonry Block for Pavement	IC -DTSDG - 22 (Dec 22 - 23)	Participation
20	Ankit Bahirwar, Siddant Bhaisare, Mayur Bankar, Rohit Marbate, Chaitanya Raut, Prof. Mohitsingh Katoch	Paper Publication	Sustainable Treatment of Wastewater Using Natural Coagulants Based on Plants Seeds	IC -DTSDG - 22 (Dec 22 - 23)	Participation
21	Rahul Likhar, Pramod Ade, Tanmay Chamate, Sidharth Nimgade, Nitin Rahangdale, Prof. Priyanka Petkar	Paper Publication	Comparative Analysis of Steel Roof Truss using STAAD PRO V8i	IC -DTSDG - 22 (Dec 22 - 23)	Participation
22	Amrapali P. Shelare, Grisma P. Janbandhu, Rubi B. Kotangale, Shital I. Ukey, Harsh B. Bopche, Prof. Mohitsingh Katoch	Paper Publication	Conversion Of Waste Plastic Into Usable Fuel By Adopting Recycling Techniques	IC -DTSDG - 22 (Dec 22 - 23)	Participation



23	Devanand Maraskolhe, Himanshu Gajbhiye, Pooja Dawne, Dhanashri Hukare, Ashutosh Dohare, Prof. Aasif Baig	Paper Publication	Experimental Investigation For Utilization Of Waste Rubber In Concrete	IC -DTSDG - 22 (Dec 22 - 23)	Participation
24	Dewanand Kosare, Dhiraj Meshram, Pallavi Raut, Yogita Kolte, Akanksha Muneshwar, Prof. Aasif Baig	Paper Publication	Investigating of Charcoal as a filter material In Water Treatment	IC -DTSDG - 22 (Dec 22 - 23)	Participation
25	Karan S. Biswas, Roshan L. Gaikwad, Litik B. Lilhare, Ratan S. Sarkar, Roshan R. Jambale, Prof. Sanjay Bhadke	Paper Publication	Investigation On Durability Parameters Of Concrete Adopting Bubble Deck Technology And Its Validation	IC -DTSDG - 22 (Dec 22 - 23)	Participation
26	Anshul Dongre, Avanniti Gourkar, Swapnil Choubey, Parimal Lokhande, Ashwin Rangari, Chetan Dhote, Prof. Amey Khedikar	Paper Publication	Analysis On Detailing Of Pre-Engineered Building (Steel Structures)	IC -DTSDG - 22 (Dec 22 - 23)	Participation
27	Chhakuli Vmaji Meshram, Tushar Kowe, Pranay R. Tembhurne	PATENT Fest	Patent and idea fest 2023 by hands of Shri Devendra Fadnavis	PATENT Fest 2K23	Participation
28	Gayatri P. Badole	Paper Publication	Utilizing multiple bracing frameworks of seismic response mitigator of R.C. structure: A solid mechanics approach and analysing using STAD -PRO	38th NCMC	Presentation



29	Sameer Chandrakant Gattewar	Paper Publication	Exploring sustainable utilization of industrial waste as replacement for fine aggregate in concrete: a solid mechanics perspective	38th NCMC	Presentation
30	sonali bhoyar	Paper Publication	Influence of various opening type of multiple location and variable shear wall size on structural behaviour in the mechanics of solid domain	38th NCMC	Presentation
31	Suhail Yousuf	Paper Publication	Exploring solid mechanics aspects in analyzing and investigating factor affecting the design of prefabricated building	38th NCMC	Presentation
32	Sneha Kamde	Paper Publication	Solid mechanics approach to seismic analysis of elevated circular watertank considering varied column section and orientation	38th NCMC	Presentation
33	Nikesh Lothe	Paper Publication	Solid mechanics based comparative study of high rise structures with uniform and variable story heights using time history analysis	38th NCMC	Presentation
34	Rucha Bhagat	Paper Publication	Study and utilization of seismic resistant construction techniques in non-engineering building systems within the mechanics of solids discipline	38th NCMC	Presentation



35	Nishant Temburbne	Paper Publication	Solid mechanics based seismic analysis of regular and vertically geometrically irregular RCC framend structres	38th NCMC	Presentation
36	Karishma Meshram	Paper Publication	dynamic behaviour analysis of strengthened multy storey building with in fill bracing and shear wall in vulnerable soft story: A solid mechanics approach	38th NCMC	Presentation
37	Akshra Chapke	Paper Publication	Exploring the Relationship between ultrasonic puls velocity tseting and rebound hammer method in solid mechanics	38th NCMC	Presentation
38	Sudhanshu C. Bujade	Paper Publication	Mechanics of solids based analysis and design of composite bridgs along with their design criteria	38th NCMC	Presentation
39	Nayana Sangole	Paper Publication	structural analysis and design of a multy sorage G+20 building with modified column orientation in the mechanics of solid field	38th NCMC	Presentation
40	Nikita Patil	Paper Publication	Solid mechanics based seismic analysis of building with and without shear walls on varied shaping ground	38th NCMC	Presentation





41	Ganesh Khadse	Paper Publication	Curent review of RC Structural elements responses to blast loads in the context of solid mechanics	38th NCMC	Presentation
42	Vikesh Ramteke	Paper Publication	Solid mechanics based design of steel concrete super structure for road over bridge under IRC class loading patterns	38th NCMC	Presentation
43	Kartik Khubalkar	Paper Publication	Application of a solid mechanics system of systems approach of accessing nuclear power plant sefty and seismic resilience	38th NCMC	Presentation
44	Mustafa Shabbir Bohra	Paper Publication	Solid Mechanics analysis and design of confined ferrocrete cross beams and their bending behaviour	38th NCMC	Presentation
45	Vipin Sahare	Internationl Conference	attended	Asian scenario on infrastructural development ASID 2023	Participation
46	Siddant Bhaisare	Paper Publication	Sustainable Treatment of Wastewater Using Natural Coagulants Based on Plants Seeds	IJMTST	Published



## Tech-Chronicle e-Journal- Session 2022-2023

Sr. No.	PAPER ID	Name of Student	Guide Name	Branch	Title of Paper
1	TECH - CHRONICLE -23- 06-06	Gayatri P Badole	Dr. Amey R. Khedikar	Civil	SEISMIC RESPONSE REDUCTION OF R.C.STRUCTURES USING MULTIPLE TYPESOF BRACING FRAMEWORK USINGSTAAD,PRO
2	TECH - CHRONICLE -23- 06-07	Karishma Meshram	Prof. Priyanka Petkar	Civil	AN EXAMINATION OF THE SEISMIC RESPONSE OF A RETROFITTED MULTISTORIED BUILDING USING INFILL BRACING AND SHEAR WALL IN SOFT STOREY
3	TECH - CHRONICLE -23- 06-08	Nikesh B. Lothe	Prof. Sanjay K. Bhadke	Civil	A REVIEW, COMPARATIVE STUDY OF EVEN AND UNEVEN STORY HEIGHT OF HIGH RISE STRUCTURE BY USING TIME HISTORY ANALYSIS
4	TECH - CHRONICLE -23- 06-09	Nishant Suresh Tembhurne	Prof. Divyani Harpal	Civil	An overview of seismic analysis of vertical geometric irregular RCC -framed buildings
5	TECH - CHRONICLE -23- 06-10	Ms. Rucha Bhagat	Dr. Sandeep Gaikwad, Prof. Mohitsingh Katoch	Civil	A Review on "Analysis and applications of an earthquake resistant non engineered building construction"
6	TECH - CHRONICLE -23- 06-11	Suhail Yousuf	Prof. Sanjay bhadke	Civil	An examination of the analysis and research of the factors influencing the design of prefabricated buildings
7	TECH - CHRONICLE -23- 06-12	Sonali Bhojar	Dr. Amey R. Khedikar	Civil	A Review of "Effect on Behaviour of Structure with types of opening at multiple locations with variation in the size of the shear wall"
8	TECH - CHRONICLE -23- 06-14	Nayana B. Sangole	Prof. Aasif M. Baig	Civil	Analysis and Design of G+20 multi storied building with and without shear walls by changing orientation of column: A Review



9	TECH - CHRONICLE 06-15	-23-	Nikita R. Patil	Prof. Divyani Harpal	Civil	REVIEW ON SEISMIC ANALYSIS OF BUILDING WITH AND WITHOUT SHEAR WALL ON DIFFERENT SLOPING GROUND ANGLES FOR ZONE FIVE
10	TECH - CHRONICLE 06-16	-23-	Mustafa Bohra,	Prof. Priyanka Petkar	Civil	ANALYSIS AND DESIGN FOR CONFINED FERROCRETE CROSS BEAM AND ITS BENDING BEHAVIOUR
11	TECH - CHRONICLE 06-17	-23-	Ganesh N. Khadse	Prof. Aasif M. Baig	Civil	Analysis of vulnerary aspects of R. C. Structure under shock wave condition: A REVIEW
12	TECH - CHRONICLE 06-18	-23-	Kartik Khubalkar	Prof. Aasif M. Baig	Civil	Assessment of Systemic Seismic Vulnerability and Risk in Urban Infrastructure and Utility Systems: A Review
13	TECH - CHRONICLE 06-19	-23-	Mr. Sudhanshu Bujade	Dr. Sandeep Gaikwad, Prof. Mohitsingh Katoch	Civil	Analysis and Design of Composite Bridge and there Design Criteria
14	TECH - CHRONICLE 06-20	-23-	Sameer Gattewar,	Prof. Aasif M. Baig	Civil	Review of the sustainable use of industrial waste to replace the fine aggregate used to prepare concrete
15	TECH - CHRONICLE 06-21	-23-	Akshara Chapke	Prof. Sanjay Bhadke	Civil	Structural Assessment of Silo Structure Using NDT Technics
16	TECH - CHRONICLE 06-22	-23-	Vikesh Ramteke	Dr. Amey R. Khedikar	Civil	ANALYSIS AND DESIGN OF A 24 M LONG SPAN STEEL GIRDER WITH THE LOAD OF A SPECIAL VEHICLE IN MIND
17	TECH - CHRONICLE 06-23	-23-	Sneha J. Kamble	Prof. Priyanka Petkar	Civil	“SEISMIC ANALYSIS OF ELEVATED CIRCULAR WATER TANK WITH DIFFERENT SECTIONS AND ORIENTATION OF THE COLUMN”



## Technical Events (Session 2022-23)

Sr. No.	Activities	Details of Activity	Resource Person / Address and Contact Number	Date of Conduction	No. of Participants
1	Guest Lecture	Engineers' Day 2022, Celebration	Dr. Srikant Annavarapu , Director, Master Geotech Services Pvt. Ltd., Nagpur.	17-9-2022	117
2	Expert Lecture	Building Information Modeling (BIM)	Er. Sarang Pimpalkar, Sr. Technical Manager, Admire Tech Vision Pvt Ltd, Nagpur	19-9-2022	35
3	Site Visit	Site visit to CSIR-NEERI campus, Nagpur.	Dr. Prakash Kumbhare, Senior Scientist, CSIR NEERI	26-9-2022	55
4	Workshop	Two -Day Workshop on Introduction to Professional Practices in RCC Construction	Dr. S. K. Mahajan, Structural consultant and Director, Struct -e-Solutions	29-9-2022 to 30-9-2022	72
5	Expert Lecture	Structural Analysis, Design and Detailing of G+5 Apartment using Tekla Structural Design Software	Er. Atul K. Agade, Sr. Cadd faculty at Cadd Centre, Nagpur	13-10-2022	38
6	Expert Lecture	Recent Technologies in Waste Water Treatment with special emphasis on Moving Bed Bio Reactor (MBBR) Technology	Dr. O. N. Mukherjee, Director ONM consultant and Vice Chairman IWWA	22.11.22	45



7	Expert Lecture	Adoption of Innovative Technologies for achieving Sustainable Construction goals	Dr. Nagaraj Sitaram 9739166243 drnagarajsitharam@eastpoint.ac.in	22-12-2022	38
8	Expert Lecture	Self Healing Concrete	Dr. Shirish V. Deo 9713099399 svdeo.ce@nitrr.ac.in	23-12-2022	38
9	Site Visit	NUVOCO VISTAS PVT. LTD. RMC Plant	Mr. Ramakrishna Sige Plant Manager, 8828022420 ramakrishna.sige@nuvoco.com	2/2/2023	53
10	Expert Lecture	Late Dr. P.R.Bhave Memorial Lecture series at Indian Water Works Association (IWWA) Nagpur Centre, Shankar Nagar, Nagpur between 7pm to 10pm	Dr. M. Dhinadhayan, Advisor(PHEE), CPHEEO, New Delhi  Dr. S.V. Dahasahasra, Member, National Task Force of 24x7 Water Supply and Expert Committee, Water Manual, MoHUA	20/2/2023	13
11	Expert Lecture	Career Guidance in Civil Engineering Softwares	Ms. Priyanka Kawale, Ms. Anjali Khote, Mr. Omesh Athar, Software Trainer & Design Engineer, Astral Informatics (P) Ltd. Nagpur 9923021166	3/2/2023	55
12	Forum Reinstallation	Forum Reinstallation, IWWA Student Chapter Establishment, Felicitation of Toppers, Expert Lecture on "Scope of Civil Engineers in Water Engineering	Dr. O.N. Mukherjee Vice Chairman, IWWA Nagpur Centre 9422126526  Dr. Isha Khedikar Joint Secretary, IWWA Nagpur Centre 9890920906	3/3/2023	61



7	Lecture	Technologies for achieving Sustainable Construction goals	drnagarajsitharam@eastpoint.ac.in		
8	Expert Lecture	Self Healing Concrete	Dr. Shirish V. Deo 9713099399 svdeo.ce@nitrr.ac.in	23-12-2022	38
9	Site Visit	NUVOCO VISTAS PVT. LTD. RMC Plant	Mr. Ramakrishna Sige Plant Manager, 8828022420 ramakrishna.sige@nuvoco.com	2/2/2023	53
10	Expert Lecture	Late Dr. P.R.Bhave Memorial Lecture series at Indian Water Works Association (IWWA) Nagpur Centre, Shankar Nagar, Nagpur between 7pm to 10pm	Dr. M. Dhinadhayalan, Advisor(PHEE), CPHEEO, New Delhi  Dr. S.V. Dahasahasra, Member, National Task Force of 24x7 Water Supply and Expert Committee, Water Manual, MoHUA	20/2/2023	13
11	Expert Lecture	Career Guidance in Civil Engineering Softwares	Ms. Priyanka Kawale, Ms. Anjali Khote, Mr. Omesh Athar, Software Trainer & Design Engineer, Astral Informatics (P) Ltd. Nagpur 9923021166	3/2/2023	55
12	Forum Reinstallation	Forum Reinstallation, IWWA Student Chapter Establishment, Felicitation of Toppers, Expert Lecture on "Scope of Civil Engineers in Water Engineering"	Dr. O.N. Mukherjee Vice Chairman, IWWA Nagpur Centre 9422126526  Dr. Isha Khedikar Joint Secretary, IWWA Nagpur Centre 9890920906	3/3/2023	61





13	Site Visit	Department of Civil Engineering organized Site Visit at Gosekhurd Dam, (Wahi) Pauni, Bhandara	Mr. D. R. Patil (Junior Engineer), Ms. Sarita Harne(AE -II) and Shri. N. N. Thakare (CEA), Office - Assistant Engineer Gr -I, Gosikhurd	18.03.23	56
14	World Water Day -2023 Celebration	Department of Civil Engineering, TGPCET received Vibrant Student chapter Award of IWWA for conducting various activities under Forum by the Hands of Dr Atul Vaidya, Director CSIR -NEERI during the world Water Day Celebration. Lecture Topic was "Accelerating change in Water And Wastewater Management"	Dr Atul Vaidya, Director CSIR - NEERI, 07122249885, 9860201457	23.03.23	15
15	Parents Teacher Conclave	Department of Civil Engineering organized Parent Teacher conclave for 2nd, 3rd and 4th Year classes	Head Civil Engineering	25.03.23	12



16	Site Visit	Department of Civil Engineering organized site visit of Geological Survey by Drone Technology	Mr. Sachin Wargantiwar, (M.Sc. Technology FGGS) Ground Water Consultant at Om Ground Water Consultants	29.03.23	22
17	Poster Competition	Department of Civil Engineering organized a Poster Making Competition on the occasion of World Health Day	Prof. Anup Gade, Dean (Academics) Prof. Ritesh Banpurkar, Dean (IQAC)	06.04.2023	31
18	Earth Day - 2023 Celebration	Monthly Lecture Series topic "Remote Sensing for Sustainable Natural Resources Management" by Dr.Ashok Kumar Joshi, Director, MRSAC, Dept. of Planning, GoM, Nagpur	Dr.Ashok Kumar Joshi, Director, MRSAC, Dept. of Planning, GoM, Nagpur	24.04.2023	10
19	Site Visit	MahaMetro Bhavan, Deeksha Bhoomi, Nagpur	Mr.Akhilesh Halve, DGM(CC) and Ms.Rashmi Madankar	28.04.2023	45
20	Faculty Development Programme	One Week Faculty Development Programme on Recent Advancement in Composite Materials and Structure	Total 10 Expert from Academic and Industry Background.	08.05 to 13.05.2023	112



21	Alumni Expert Lecture on occasion of World Environmental Day	Topic: Construction Engineering and Management	Mr.Kaustubh Jichkar, (Alumni of Batch 2013 -14) Project Assistant Level 2, CSIR -NEERI Nagpur	07.06.2023	25
22	Parents Teacher Conclave	Department of Civil Engineering organized Parent Teacher conclave for 4th semester (AU)	Head, Civil Engineering	17.06.2023	9
23	Two Days Survey Camp	Department of Civil Engineering organized Two days survey camp for 4th semester (AU)	Prof. Priyanka Petkar & Prof. Gayatri Badole	10.07.2023	37
24	Three Day Workshop	Department of Civil Engineering Organized 3 Days Workshop on Total Station	Mr. Mangesh Urade, Director Land Surveyors 9921697738	13.07.2023 to 15.07.2023	39
25	Site Visit	Department of Civil Engineering organized site visit of Water Treatment plant for FY Students	Dr. O. N. Mukherjee, Director ONM consultant and Vice Chairman IWWA (9422126526) AE Mr. Nagrale( 9021440203)	17.07.2023	45



## Technical Events (Session 2023-24)

Sr. No.	Activity	Details of Activity	Resource Person/ Address and Contact Number	Date of Conduction	No. of Participants
1	World Nature Conservation Day -2023 celebration	Monthly Lecture Series topic "Integrated Water Resources Management - Mapping and Analysing the Maharashtra's Most Critical Resources" by Er. Subhash Deshpande and Dr. Kalpana Bhole	Er. Subhash Deshpande, Former Secretary & Executive Director, Water Resources Department, Maharashtra and Dr. Kalpana Bhole, Former Executive Engineer, MJP Nagpur	20.07.2023	12
2	Site Visit	200 MLD Sewage Treatment Plant, Bhandewadi	Mr. Vinay Wadgaonkar 9637303884, Er. Prashant Waghmare NMC Office 7020664477 Plant Manager, Bhandewadi Sewage Treatment plant, Nagpur (200 MLD)	14.08.2023	38
3	Workshop	One Day Bamboo Workshop	Ar. Mahesh Mokha (Co - convener), Ar. Pradyumna Sahashrabhojane & Ar. Ashish Nagpurkar	18.08.2023	50
4	Induction Program	Induction Program for 2nd year students of B.Tech Civil Engineering (AU)	Dr. Aasif M. Baig, HoD CE, Prof. Anup Gade, Dean Academics	11.09.2023 and 12.09.2023	25
5	Site Visit	CSIR -NEERI campus, Nagpur	Dr. K.V. George, Ms. Megha, Mr. Diwakar, Mr. Mohammad Danish	04.10.2023	



6	ARTEX Forum Reinstallation, ICI Students Chapter Establishment, Students Felicitation & Expert Lecture	ARTEX Forum Reinstallation, Felicitation of Toppers, ICI Student Chapter Establishment & Guest Lecture.	Dr. H. D. Chandewar, Er. Manoj Kawalkar , Er. Bhagwat Patil, Dr. Ranjeet Patil	21.10.2023	80
7	Awareness Program Metro Samwad	Maha Metro Nagpur	Mr. Mahesh Moroney, Sr. DGM Maha Metro, Mr. S.G. Rao, Ms. Nupur Dhole, Ms. Prerna Pandey	27.10.2023	170
8	Guest lecture	Building information modeling	Ms. Anjali Khote	31.10.2023	125
9	Parents Teacher Conclave	Department of Civil Engineering organized Parent Teacher conclave for 3rd & 5th semester (AU)	Head, Civil Engineering	25.11.2023	25
10	Late Shri D. V. Date Memorial Lecture	Monthly lecture topic "Urban Flooding Causes & Solution: Nag River Case Study"	Dr. Sandeep Shirkhedkar, Hydrology Consultant and Director, ImaGIS Engineering Solutions Pvt. Ltd.	05.12.2023	11



## Students Achievements

Sr. No.	Name of Students	Activities	Details of Activity	organised by / Date of Conduction
1	Pramod Ade	NPTEL	Plastic Waste Management (8 Weeks)	Aug - Oct 2022
2	Krupadan Jangam	NPTEL	Design of Connectin in Steel Structure	Aug - Sept 2022
3	Roshan Gaikwad	NPTEL	Municipal Solid Waste Management	Jul - Oct 22
4	Rajendra Bhelave	NPTEL	Municipal Solid Waste Management	Jul - Oct 22
5	Mansi Kute	NEEV 2023 (Shree Ramdeo Baba College of Engineering and Management, Nagpur)	Powerpoint Presentation	23rd to 25th March 2023
6	Prachi Tale			
7	Komal Wadaskar	NEEV 2023 (Shree Ramdeo Baba College of Engineering and Management, Nagpur)	Powerpoint Presentation	23rd to 25th March 2023
8	Achal Onkar			
9	Abu Lobana Zaidi	Adhyaaya'23 (Government College of Engineering, Nagpur)	Food -O -Holics	10th to12th March 2023
10	Litik Lilhare			
11	Pratiksha Gedam			
12	Mohitgiri Goswami			
13	Abhay Kathane	Adhyaaya'23 (Government College of Engineering, Nagpur)	Bridge - O - Craft	10th to12th March 2023
14	Rohan Thawkar			
15	Tejas Wasnik			
16	Aniket Dhawale			
17	Pranav Pathrabe			
18	Vipin Sahare	Adhyaaya'23 (Government College of Engineering,	Bridge - O - Craft	10th to12th March 2023
19	Priyanka Meshram			
20	Akash Shirgawar			





21	Shrikrishna Shirgawar	Nagpur)		
22	Vaishnavi Kamde			
23	1. Vrushabh Zodape 2. Devanand Kosare 3. Dhiraj Meshram 4. Pallavi Raut 5. Yogita Kolte 6. Akanksha Muneshwar	"Vibration 2k23" (East Point college of engineering and Technology, Karnatka)	Project Exhibition	9th may 2023
26	1. Abu Lobana Zaidi 2. Pratiksha Gedam 3. Rajendra Bhelave 4. Pranali Belpande 5. Chaitanya Kotangle 6. Achal Lonare	"TANTRA - VIGYAN" TGPCET,Nagpur	Project Competition ISTE	16th-May 2023
27	1. Krupandan S Jangam 2. Karan S Biswas 3. Roshan R Jambale 4. Roshan L Gaikwad 5. Ratan S Sarkar 6. Litik B Lilhare	"TANTRA - VIGYAN" TGPCET,Nagpur	Project Competition ISTE	16th-May 2023
28	Nishant Tembhurne	NPTEL	Cherecterization of Construction Material	Jan-Apr 2023
29	Sneha Kamble	NPTEL	Cherecterization of Construction Material	Jan-Apr 2023
30	Gayatri Badole	NPTEL	Cherecterization of Construction Material	Jan-Apr 2023
31	Nikita Patil	NPTEL	Cherecterization of Construction Material	Jan-Apr 2023
32	Nikesh Lothe	NPTEL	Cherecterization of Construction Material	Jan-Apr 2023
33	Karishma Meshram	NPTEL	Cherecterization of Construction Material	Jan-Apr 2023
34	Nayana Sangole	NPTEL	Cherecterization of Construction Material	Jan-Apr 2023



35	Rucha Bhagat	NPTEL	Characterization of Construction Material	Jan-Apr 2023
36	Suhail Yousuf	NPTEL	Characterization of Construction Material	Jan-Apr 2023
37	Sonali Bhoyar	NPTEL	Characterization of Construction Material	Jan-Apr 2023
38	Vikesh Ramteke	NPTEL	Characterization of Construction Material	Jan-Apr 2023
39	Pranav Pathrabe	NPTEL	Basic Construction Material	Jan-Apr 2023
40	Dhanshree Lautre	NPTEL	Concrete Technology	Jan-Apr 2023
41	Akash Shirgawar	NPTEL	Safety in Construction	Jan-Mar 2023
42	Shrikrishna Shirgawar	NPTEL	Safety in Construction	Jan-Mar 2023
43	Vaishnavi Kamde	NPTEL	Safety in Construction	Jan-Mar 2023
44	Rohit Dey	NPTEL	Concrete Technology	Jan-Mar 2023
45	Pankaj Chavhan	NPTEL	Basic Construction Material	Jan-Mar 2023
36	Suhail Yousuf	NPTEL	Characterization of Construction Material	Jan-Apr 2023
37	Sonali Bhoyar	NPTEL	Characterization of Construction Material	Jan-Apr 2023
38	Vikesh Ramteke	NPTEL	Characterization of Construction Material	Jan-Apr 2023
39	Pranav Pathrabe	NPTEL	Basic Construction Material	Jan-Apr 2023
40	Dhanshree Lautre	NPTEL	Concrete Technology	Jan-Apr 2023



41	Akash Shirgawar	NPTEL	Safety in Construction	Jan-Mar 2023
42	Shrikrishna Shirgawar	NPTEL	Safety in Construction	Jan-Mar 2023
43	Vaishnavi Kamde	NPTEL	Safety in Construction	Jan-Mar 2023
44	Rohit Dey	NPTEL	Concrete Technology	Jan-Mar 2023
45	Pankaj Chavhan	NPTEL	Basic Construction Material	Jan-Mar 2023
46	Abhay Nannaware	NPTEL	Safety in Construction	Jan-Mar 2023
47	Anadi Halder	NPTEL	Concrete Technology	Jan-Mar 2023
48	Darshan Chavhan	NPTEL	Safety in Construction	Jan-Mar 2023
49	Rina Mohurle	NPTEL	Geotechnical Engineering & Foundation Engineering	Jan-Mar 2023
50	Giish Khadatkar	NPTEL	Basic Construction Material	Jan-Mar 2023
51	Akash Bachar	NPTEL	Basic Construction Material	Jan-Mar 2023
52	Samir Dadmal	NPTEL	Safety in Construction	Jan-Mar 2023
53	Amit Dhodare	NPTEL	Safety in Construction	Jan-Mar 2023
54	Mr. Karan Biswas	UT	RTMNU	S-2023, 6 <sup>th</sup>
55	Ms. Vaishali Sharnagat	UT	RTMNU	S-2023, 10 <sup>th</sup>
56	Ms. Vaishnavi Satpute	UT	RTMNU	S-2023, 10 <sup>th</sup>
57	Mr. Litik Lilhare	UT	RTMNU	S-2023, 10 <sup>th</sup>



## List of Outstanding Performer (Student) (2022-23)

Sr. No.	Name of Staff Member	Title of Activity/Work Done	Date	Details of Activity	Proof Attached
1	Akash Shirgawar	NPTEL with Elite	Jan - March 2023	NPTEL Online Certification course in Safety in Construction	Certificate
2	Vaishnavi Kambde	Award Received by IWWA	23.03.2023	Vibrant Student Chapter Award by IWWA	Certificate

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**Rashtrasant Tukadoji Maharaj Nagpur University**  
**Merit Student of BE 8<sup>th</sup> Semester (Final)**  
**C.B.S. Examination of Summer 2023**  
**Branch- Civil Engineering Department**




**Mr. Karan Sunil Biswas**  
**CGPA- 8.14**




**Ms. Vaishali Shivram Sharnagat**  
**CGPA- 8.06**




**Ms. Vaishnavi Namdev Satpute**  
**CGPA- 8.06**




**Mr. Litik Bhojendra Lilhare**  
**CGPA- 8.06**

B.Tech | B.Arch | M.Tech | MBA | MCA | Polytechnic | BAMS | D. Pharm | B. Pharm | B.Sc Nursing | Physiotherapy



## Faculty Achievements

Sr. No.	Name of Staff Member	Title of Activity/Work Done	Date	Details of Activity	Proof Attached
1	Prof. Aasif Baig	NPTEL Translation	20.7.2022	Translated NPTEL Course "Structural Dynamics for Civil Engineers - SDOF systems (105104189)" in Marathi for 3.75 Hours.	Certificate
2	Prof. Aasif Baig	Delivered Expert Lecture	5th Sept. to 8th Sept. 2022	Delivered the Lecture on topic Research - Its Need and Scope in one week STTP on Research Paper writing, IPR and patent filing organized by Sanmati Engineering College Washim in association with National Intellectual Property Awareness Mission (NIPAM) (Government patent office, Mumbai).	Certificate
3	Dr. Amey Khedikar	NPTEL Certification in elite Grade	16.05.2023	Outcome Based Pedagogic Principles for Effective Teaching	Certificate
4	Prof. Mohitsingh Katoch	NPTEL Certification with Elite Grade	Oct 2022	Municipal Solid Waste Management	Certificate
5	Prof. Mohitsingh Katoch	NPTEL Certification with Elite + Silver Grade	Feb 2023	Electronic Waste Management - Challenges & Issues	Certificate
6	Prof. Mohitsingh Katoch	NPTEL Certification with Elite Grade	Apr 2023	United Nations Sustainable Development Goals	Certificate

List of Faculty Member who are eligible for Award on 15<sup>th</sup> August

Sr. No	Name	Category
01	Mr. Sanjay Bhadke	Book Published
02	Mr. Amey Khedikar	Patent Published







DTE Code: 4151

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## CIVIL ENGINEERING DEPARTMENT

Faculty members received copyright in the session 2022-23



**Dr. Sandeep Gaikwad**  
Received 1 Copyrights



**Dr. AASIF M. BAIG**  
Received 2 Copyrights



**Dr. Amey Khedikar**  
Received 2 Copyrights



**Prof. Sanjay Bhadke**  
Received 2 Copyrights



**Prof. Mohitsingh Katoch**  
Received 2 Copyrights



**Prof. Priyanka Petkar**  
Received 2 Copyrights



**Prof. Divyani Harpal**  
Received 2 Copyrights



B.Arch | B.tech | M.Tech | MBA | MCA | Polytechnic | D.Arch | B. Pharm | D. Pharm | BAMS | B.Sc Nursing | Physiotherapy

