CIVILOHOLIC

BY DEPARTMENT OF CIVIL ENGINEERING

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Earthquakes don't kill people,
buildings do.

DR. B. C. ROY ENGINEERING COLLEGE

Approved by AICTE An Autonomous Institution Affiliated to MAKAUT, West Bengal

DURGAPUR

EDITOR MASSAGE'S

Dear Readers,

It is with great joy and pride that we present to you the fifth edition of our departmental E-magazine, CIVILOHOLIC. This platform has consistently aimed to reflect the innovative spirit and creative potential of both our students, faculty and staff members. With every edition, we strive to bring forth fresh perspectives and ideas that contribute to the intellectual growth of our academic community.

This magazine serves as a launchpad for the creative and intellectual expressions of students. Much like a parachute functions best when opened, the mind too must be free and expansive to explore its full potential. Through this initiative, we aim to unlock the imagination of our budding engineers and allow them to explore beyond the conventional boundaries of academics. The dedication shown by our students and guidance from experienced faculty and staff have resulted in a vibrant and engaging collection of content.

From technical articles to poetry, stories, photographs, drawings, and non-technical pieces, this edition encapsulates a rich blend of knowledge and creativity. We firmly believe that innovation is born out of observation, exploration, and curiosity. The consistent hard work, creativity, and perseverance of our contributors are what breathe life into this magazine and make it appealing to readers of all backgrounds.

The journey of editing and compiling this magazine has been both challenging and rewarding. This effort could not have been realized without the invaluable support of Prof. Koyndrik Bhattacharjee, Prof. Anupam Kumar Biswas, and the enthusiastic contributions of another editorial team member Udit Sarkar. His dedication and belief in nurturing talent have been instrumental.

Special thanks go to Dr. Sanjay Sengupta, Head of the Civil Engineering Department, for entrusting me with the responsibility of editing this issue. I also wish to acknowledge the guidance and encouragement of Dr. Sanjay S. Pawar (Principal, BCREC) and Dr. K. M. Hossain (Vice-Principal, BCREC), whose support has been vital.

It is my sincere hope that this edition of CIVILOHOLIC inspires its readers, stimulates critical thinking, and continues to receive your appreciation and encouragement in the future.

SAHABUDDIN SEKH
Chief Editor, CIVILOHOLIC
3rd Year, Department of Civil Engineering
DR. B.C. ROY ENGINEERING COLLEGE, DURGAPUR

HOD'S MASSAGE'S

Warm greetings from the Department of Civil Engineering, Dr. B.C. Roy Engineering College, Durgapur.

It is with immense pride and satisfaction that I present to you the fifth edition of our departmental e-Magazine CIVILOHOLIC. Since its inception in 2021, the magazine has served as a platform to showcase the innovation, technical expertise, and creativity of our students, faculty and staff members. With each edition, we have seen significant improvement in content, depth, and impact, and I am confident that this volume will raise the bar even higher.

This publication is the result of tireless efforts by our student editorial board, faculty mentors, and all contributors whose dedication and teamwork made this endeavor possible. My heartfelt appreciation goes out to everyone who supported and participated in this journey.

Beyond academics, the department remains actively engaged in enriching the student experience through cultural and professional initiatives. This academic year, we proudly organized events such as AGOMONI 2024, Teacher's Day 2024, and the Farewell Program of Final Year Students, all of which fostered a sense of unity and celebration among students, faculty and staff members.

On the industry collaboration front, a significant milestone was achieved through the Memorandum of Understanding (MoU) signed between our department and Ultratech Cement, which will open up opportunities for industrial training, knowledge sharing, and practical exposure.

In terms of student development, we are proud to highlight that 20 third-year students were offered paid internships under the National Highways Authority of India (NHAI), giving them valuable hands-on experience in core civil engineering domains. Additionally, the department successfully organized a workshop on Building Information Modeling (BIM) and Revit, which saw enthusiastic participation from students, faculties, and staffs—not only from our college but also from other institutions, making it a truly collaborative and enriching learning experience.

One of our most significant achievements this year is the outstanding placement scenario. More than 50% of final year students have secured jobs in reputed companies, with many of them bagging lucrative offers. Notably, placements include Godrej and Boyce (₹7.75 LPA), Skipper Limited (₹5.50 LPA), Megha Engineering and Infrastructures Ltd. (₹3 LPA), and Duttcon Consultant and Engineers Pvt. Ltd. (₹2.49 LPA). These results reflect the hard work of our students, the consistent mentoring by faculties and staffs and the department's emphasis on industry-aligned training.

As we move forward, our department remains committed to fostering academic excellence, professional growth, and holistic development of every student. We aim to continue creating a vibrant ecosystem where creativity and technical competence flourish hand in hand. I extend my best wishes to all readers and contributors of this magazine and hope it will continue to inspire innovation and excellence across the Civil Engineering community.

DR. SANJAY SENGUPTA

PROFESSOR & HOD

CE. BCREC

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DR. B.C. ROY SOCIETY
ENGINEERING

OVERVIEW
OF CIVIL ENGINEERING DEPARTMENT

VISION

To transform the department into a global center of learning through synergic application of understanding, creativity, innovation and discipline.

MISSION

To provide a great platform for learning by offering a variety of subject choices covering broad frontier areas of civil engineering. To inculcate in students a commitment to ethical and sustainable engineering practices, social responsibility and foster leadership qualities. To collaborate with industry and academia for achieving excellence in research, consultancy and entrepreneurship developments. To develop and maintain quality education through active collaboration with all stakeholders, including students, teachers, industry, alumni, and renowned academic and research institutions.

LABORATORIES

- SOLID MECHANICS LAB
- SURVEYING AND GEOMETRICS LAB
- FLUID MECHANICS LAB
- ENGINEERING GEOLOGY LAB
- SOIL MECHANICS LAB
- CONCRETE TECHNOLOGY LAB
- COMPUTER AIDED DRAWING LAB
- WATER RESOURCE ENGINEERING LAB
- ENVIRONMENTAL ENGINEERING LAB
- MATERIAL TESTING LAB
- HIGHWAY & TRANSPORTATION ENGG. LAB.
- PROJECT LABORATORY

OVERVIEW

The department of Civil Engineering was established in the year 2010 and the first batch graduated in the year 2014. The department has highly qualified faculty members who are dedicated for quality education to students. The laboratories of the department are well equipped for undergraduate level of studies. A project lab is being established looking at the recent needs in Civil Engineering where students will be able to do hands on project. Since its inception the department has produced quality students who are presently doing well in their professional life in different areas of Core Civil Engineering, Software Engineering, Government Services and different other allied sectors. Department encourages students to pursue higher studies in different areas of Civil Engineering after qualifying GATE examination, MBA and studying abroad. Department has MoU with NHAI where paid internship opportunities are available. Department has well connected established relationship with various other companies and Government organizations where internship/ industrial training opportunities are created for the students. Department organises regular site visit / industrial visit for students to provide the students with the feel of practical & industry exposure from second year onwards. There are established student chapters in the department where the students are encouraged to become member and showcase their technical and managerial skill through organising different events. Since its inception the department is trying its best to improve the quality of education such that the students get the best kind of placement opportunities.

SCAN & SEE OUR DEPARTMENTAL VIDEO

CIVILOHOLIC

DEPARTMENT OF CIVIL ENGINEERING

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TECHNICAL ARTICLES

Unveiling Kolkata's Subaqueous Marvel: The First Under-River Metro

In the bustling metropolis of Kolkata, where every street narrates a tale of history and progress, a new chapter has been written in the annals of transportation infrastructure. Kolkata's first under-river metro, a testament to engineering ingenuity and urban advancement, emerges as a beacon of modernity amidst the city's rich cultural tapestry. This groundbreaking project represents not only a triumph in transportation technology but also a catalyst for socio-economic development in the region.

The East West Metro Tunnel, located in Kolkata, West Bengal, is an underwater river tunnel constructed beneath the Hooghly River for the Kolkata Metro. It holds the distinction of being India's largest underwater river tunnel designed for metro rail service. Spanning a length of 10.8 kilometres (6.7 miles) and boasting a width of 5.5 meters (18 feet 1 inch), the tunnel includes a 520-meter (1,706 feet) stretch passing beneath the Hooghly River. Positioned approximately 30 meters (98 feet 5 inches) below ground level, the tunnel was successfully completed in 2021. Operated by the Kolkata Metro Rail Corporation, the East West Metro Line utilizes this tunnel for its metro rail services, with construction undertaken by Afcons Infrastructure.

As per the historical backup, It was more than 100 years ago in 1921 that a British engineer Sir Harley Dalrymple-Hay had for the first time proposed that the East and West sides of Kolkata should be connected through an underwater metro. However, the ambitious project did not see the light of day as the railways considered it too costly and difficult to handle given the alluvial soil that made up the Gangetic bed and pushed it into the background. However, Dalrymple-Hay was assigned by the Calcutta Electric Supply Corporation to build a smaller tunnel linking the two cities for electric cables. This tunnel, the first of its kind in India, was done by hand without any boring machines and completed in 1931.

Though the Howrah Bridge over the Hooghly River provided the desired connectivity when it became operational in 1946, the huge flow of traffic in the later years kept city planners on their toes for alternate connectivity routes.

In 1971, Kolkata’s master plan once again emphasized the need for such a project but both the state as well as the Centre were hesitant as they lacked the confidence to go in for such a mammoth exercise. Project experts say that technological advancement in Russia and many European countries made it possible to have under-river tunnels for inter-city connectivity and this gave a cue to Indian engineers to deploy a similar technology here for an under-river project.

After years of delay and deliberations, when the Indian Railways, in 2010, handed over the contract for this project to the construction firm AIL through international bidding.

The first phase of the construction was the very challenging to plan and design the whole project for the first time; first of all the soil under the river and also the city is alluvial, clayey and muddy. So, The project experts had to carry out extensive geotechnical studies and hydrographic surveys to identify aquifers and understand the ever-changing soil parameters.

The planning phase of the project involved extensive feasibility studies and route assessments. Engineers evaluated various factors such as geological conditions, hydrology, and environmental impact to determine the most

suitable path for the tunnel. Advanced modelling and simulation techniques were employed to forecast potential challenges and devise mitigation strategies.

After a long research, innovations and collaborated with Russian, South African and European engineers, finally the construction started on march 2016 from Howrah Maidan. The section between Howrah Maidan metro station and Esplanade metro station has been built by Afcons – Transtonnelstroy JV team, two customized tunnel boring machines from Herrenknecht, Germany are being used to dig the tunnel, which have some particular specification to meet the project's need.

Tunnelling started from Howrah Maidan side. On 23 May one of the TBM named Rachna completed the tunnelling under the Hooghly River in 36 days. The other TBM named Prerna also completed the tunnelling work under the river on 21 June 2017. There were some concerns during tunnelling under Brabourne Road as the tunnel would pass within 100 metres (328 ft 1 in) of heritage structures and there were also many old and dilapidated buildings in this section. KMRC received permission from Archaeological Survey of India in June 2017. Residents and shops in the old building were temporarily shifted and the buildings were reinforced before construction of tunnel. Under may 2018, 5490 meters of tunnel have been constructed between Subhash Sarovar and Sealdah. This section was constructed by ITD-ITD Cementation JV. All the cross passes between the two tunnels have also been completed. Track laying is being carried out in this section. The tunnelling work was stopped due to collapse of building on 3 September 2019 over the Bowbazar area due to TBM hitting an aquifer. The work resumed in June, 2020 and successfully completed the affected area.

Working cautiously, coupled with some more subsidence, all tunnelling works, retrieval of the two TBMs and closure of all shafts were completed in April 2023.

The wheels of railways rolled for the first time below the Hoogly river when, both trains arrived at Howrah Maidan station on 13 April 2023 and the trial of trains started. Later, Kolkata Metro added blue light in the underwater tunnel section to give passengers a sense of feeling under Hooghly River.

The Esplanade-Howrah Maidan section of the Line 2 was inaugurated on 6 March 2024 by Prime Minister Narendra Modi, along with the truncated sections of Taratala-Majerhat under Line 3 and Kavi Subhash-Hemanta Mukhopadhyay under Line 6.

As the work done, the national & regional media claimed this project as a big milestone terming India's first under water and "underwater river" metro tunnel, but it's not true. While the Hooghly River is very wide and requires tons of engineering challenges in constructing tunnels, there are other metro lines built in India cities which get the discussed titles, including Kolkata metro's operational Line-1 as the first one:

• Kolkata Metro Line 1: Under the Circular Canal falling between the Shyambazar and Belgachia metro stations. (built in 1990s) Today, East-West Metro also passes under this canal between Phoolbagan and Sealdah metro stations.

• Delhi Metro Line 2: Under the Najafgarh Drain in northern Delhi (built in 2007) and Kushak Drain in southern Delhi (built in 2009).

• Chennai Metro Line 1: Under the Coum River in central Chennai while passing from the Government Estate to Chennai Central metro station (built in 2015-17).

Railway experts say that the experience along with technical expertise will now come in handy for the upcoming first 7-km long undersea rail tunnel at Thane Creek in Maharashtra for the Mumbai-Ahmedabad bullet train project. This will be part of a total 21-km long underground tunnel between the Bandra-Kurla complex to Shilphata.

Anirban Kar

Civil 4th year

Roll no- 12001322022

DEPARTMENT OF CIVIL ENGINEERING

SELF-HEALING ROADS: A REVOLUTIONARY SOLUTION TO POTHOLES

Introduction

Potholes have long plagued road infrastructure worldwide, causing vehicle damage, traffic congestion, and safety hazards. Traditional road maintenance methods are costly, time-consuming, and often short-lived. However, advances in materials science have introduced an innovative concept—self-healing roads. These roads can automatically repair cracks and minor damage, significantly reducing the need for manual repairs and extending the lifespan of road surfaces.

❖ The Science Behind Self-Healing Roads

Self-healing roads rely on smart materials that can autonomously repair damage when triggered by specific environmental conditions. The three most prominent technologies include:

- Bitumen with Microcapsules: Engineers have developed asphalt containing tiny capsules filled with rejuvenating agents. When cracks form, these capsules break open, releasing their contents and sealing the cracks before they expand into potholes.
- Bacteria-Based Concrete: Certain strains of bacteria, such as Bacillus species, can be embedded into road materials. When cracks appear and moisture enters, these bacteria activate and produce limestone, filling the cracks naturally.
- Induction Heating Technology: Steel fibers embedded in asphalt can be heated using electromagnetic induction. This softens the bitumen, allowing small cracks to close and merge, effectively repairing the damage.

❖ Environmental and Economic Benefits

The implementation of self-healing roads offers several environmental and economic advantages:

- Reduced Maintenance Costs: With the ability to repair themselves, roads require fewer costly repairs, saving governments and municipalities millions annually.
- Extended Road Lifespan: Traditional roads deteriorate over time due to weather conditions and traffic load. Self-healing materials can significantly prolong the durability of road infrastructure.
- Lower Carbon Footprint: Frequent road repairs contribute to CO_2 emissions through the production and transportation of new materials. Self-healing roads minimize the need for these activities, promoting sustainability.
- Enhanced Safety: Potholes and cracks pose risks to motorists and pedestrians. Roads that can heal themselves improve road safety and reduce accident rates.

❖ Challenges and Implementation

While self-healing roads present a promising future, several challenges must be addressed before widespread adoption:

- Initial Costs: The development and integration of self-healing materials into road construction are initially more expensive than conventional methods.
- Regulatory Approval: Governments and road authorities need to update infrastructure standards and conduct extensive testing to ensure these materials meet safety and durability requirements.
- Scalability: Further research is necessary to optimize these technologies for large-scale implementation on highways and urban streets.

❖ Real-World Applications and Future Prospects

Several countries have already begun experimenting with self-healing roads. The Netherlands, for example, has tested induction-healing asphalt on highways, proving its potential for long-term use. Researchers in the UK and the US are also exploring bacteria-based concrete solutions for road and bridge repair. As research progresses, the cost of these technologies is expected to decrease, paving the way for more widespread adoption.

Conclusion

Self-healing roads represent a transformative innovation in civil engineering, promising to reduce maintenance costs, improve road safety, and minimize environmental impact. While challenges remain, continued research and investment in this technology can revolutionize transportation infrastructure worldwide. With advancements in materials science and increased governmental support, self-healing roads may soon become a standard feature in modern infrastructure, ensuring smoother, safer, and more sustainable roadways for future generations.

REVOLUTIONARY CEMENT-FREE CONCRETE: A GAME CHANGER FOR SUSTAINABLE CONSTRUCTION

Introduction

The global construction industry is undergoing a transformative shift as engineers and material scientists develop revolutionary alternatives to traditional Portland cement. Cement, a primary component of concrete, is responsible for nearly 8% of global CO_2 emissions due to its energy-intensive production process. However, recent advancements have led to the development of cement-free concrete, a groundbreaking innovation that could redefine sustainable construction.

❖ The Problem with Traditional Cement

Portland cement has been the backbone of the construction industry for over a century. Its production involves the calcination of limestone at high temperatures, a process that releases significant amounts of carbon dioxide. The environmental cost of cement production, coupled with the depletion of natural resources, has driven researchers to seek alternative solutions that maintain concrete's durability while reducing its carbon footprint. Additionally, the extraction of raw materials such as limestone and clay contributes to habitat destruction and resource scarcity.

❖ Cement-Free Concrete: The Science Behind It

Cement-free concrete replaces traditional Portland cement with alternative binders such as industrial by-products, geopolymers, and carbon-sequestering materials. Leading innovations in this field include:

- CarbiCrete: A technology that utilizes steel slag, a by-product of the steel industry, to replace cement. During curing, this concrete absorbs CO_2, effectively making it carbon-negative. Studies show that CarbiCrete achieves comparable strength and durability to traditional concrete while sequestering approximately 150kg of CO_2 per cubic meter.

- C-Crete Technologies: A zeolite-based binder that eliminates the need for cement, reducing CO_2 emissions while maintaining high strength and durability. C-Crete has successfully implemented its technology in infrastructure projects, demonstrating enhanced performance in real-world conditions.
- Alkali-Activated Geopolymers: These materials use fly ash or slag activated with alkaline solutions, producing a robust concrete alternative without the carbon-intensive cement component. Geopolymer concrete has shown superior resistance to fire, chemicals, and extreme weather conditions, making it ideal for long-lasting infrastructure.

❖ Environmental and Structural Benefits

The advantages of cement-free concrete extend beyond its eco-friendliness. These materials offer enhanced durability, reduced permeability, and improved resistance to chemical attacks. Unlike traditional concrete, which can suffer from issues like shrinkage and cracking, many cement-free alternatives exhibit superior mechanical properties, increasing the longevity of structures. Additionally, by utilizing industrial by-products, this innovation contributes to circular economy principles, minimizing waste and promoting resource efficiency.

❖ Challenges and Barriers to Adoption

Despite its promising benefits, cement-free concrete faces several challenges. The lack of standardized regulations and building codes can hinder widespread adoption, as engineers and contractors may be reluctant to use new materials without established guidelines. Additionally, the initial cost of alternative binders and production methods may be higher than conventional cement-based concrete, although long-term savings in maintenance and environmental benefits could offset these costs. Further research and large-scale pilot projects are crucial to demonstrating the feasibility and economic viability of these sustainable alternatives.

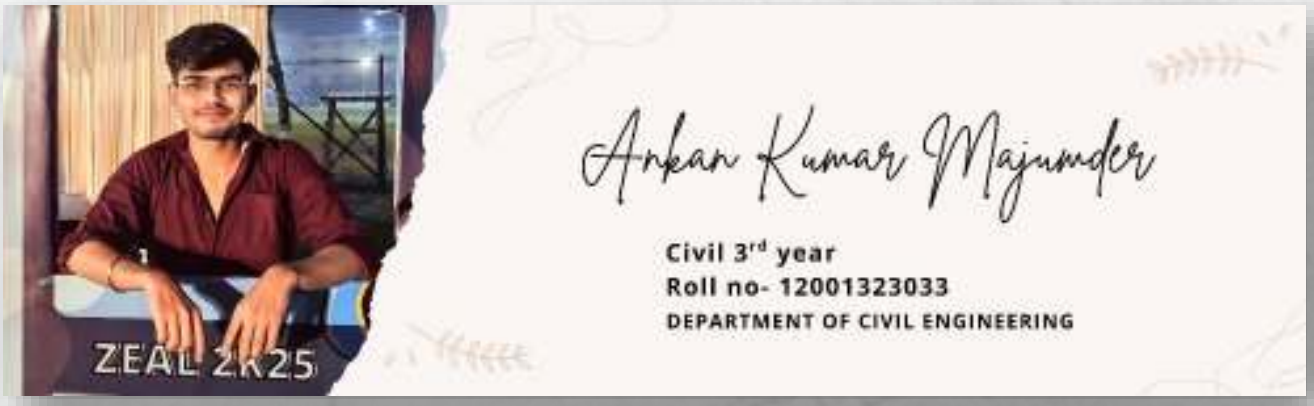
❖ Real-World Applications and Future Prospects

Cement-free concrete is already making strides in real-world applications. From structural slabs to precast elements, companies are successfully deploying this sustainable alternative in construction projects worldwide. For example, infrastructure projects in Europe and North America have utilized geopolymer concrete for bridges and highways, showcasing its resilience and long-term benefits. As research and development continue, regulatory bodies and industry leaders are working towards widespread adoption through updated building codes and standards. Government incentives and policy support can further accelerate the transition to cement-free materials.

The future of construction is undeniably green, and cement-free concrete is at the forefront of this revolution. With continued innovation and investment, this technology has the potential to become the new standard, significantly reducing the environmental impact of one of the world's most essential industries.

Conclusion

As the demand for sustainable infrastructure grows, cement-free concrete represents a promising solution to one of the construction industry's biggest environmental challenges. By embracing these advancements, engineers, architects, and policymakers can pave the way for a more sustainable and resilient built environment, ensuring a cleaner, greener future for generations to come. The transition to cement-free construction materials will not only benefit the environment but also promote economic growth through the development of new industries focused on sustainable material production and application.



THE ROLE OF AUGMENTED REALITY IN THE CONSTRUCTION INDUSTRY

✧ Introduction

The Architecture, Engineering, and Construction (AEC) sector has been slow to adopt emerging technologies, ranking low on the McKinsey Global Institute Industry Digitization Index. With productivity increasing by only 1% annually over the past two decades, integrating augmented reality (AR) can offer significant improvements. AR has the potential to reduce project costs, increase efficiency, and improve collaboration through real-time visualization and digital overlays.

✧ Leading Augmented reality Apps:

- ✓ **Gamma AR (Gamma Technologies)**: Connects BIM models to active construction sites, aiding verification and maintenance. Features include metadata access, annotations, and real-world synchronization. Used by Royal BAM for residential projects.
- ✓ **ARki (Darf Design)**: An AR model viewer for placing digital models in real-world contexts, enhancing client presentations. Used by Network Rail for pedestrian bridge designs. Key features include modular expansion, model explosion, and annotation.
- ✓ **Fologram & Twinbuild**: AR visualization tools for construction, with Fologram focused on design prototyping and Twinbuild optimized for precision construction. Used for intricate projects like the Tallinn Biennale pavilion. Supports Rhino, Grasshopper, and Revit.

✧ Applications of AR in Construction

- ➢ **BIM Model Superimposition**: AR allows contractors and managers to overlay Building Information Modeling (BIM) data onto real-world construction sites. This enhances planning, quality control, and issue detection, reducing costly rework.
- ➢ **Augmented Training and Manuals**: AR-based training enables workers to receive real-time, hands-free guidance, improving safety and efficiency. This minimizes downtime and ensures proper machinery usage without the need for onsite experts.
- ➢ **Enhanced Collaboration**: AR enables remote collaboration by allowing field workers to share live video feeds and receive expert input in real-time, reducing the need for travel and improving problem-solving.
- ➢ **Underground Construction Visualization**: AR assists in locating underground utilities, reducing risks of accidents such as gas line ruptures, which can have catastrophic consequences.

✧ **Benefits of AR Implementation**

- ❖ **Reduced Rework and Downtime**: Real-time AR visualization helps identify potential conflicts in construction plans, saving both time and money.
- ❖ **Improved Project Management**: Clients and architects can review AR models before construction begins, ensuring clarity and reducing design misunderstandings.
- ❖ **Cost Savings**: As demonstrated by Gilbane Building Company, AR use in detecting steel frame misalignment saved $5,000, proving that even a $3,000 investment in an AR headset can yield positive returns.

✧ **Challenges and Considerations**

- ✓ **High Initial Costs**: AR technology, particularly headsets like HoloLens, remains expensive, limiting adoption to large enterprises.
- ✓ **Integration Issues**: Many construction firms lack robust IT departments, slowing down the adoption of AR-based solutions.
- ✓ **Environmental Limitations**: AR currently requires relatively static surroundings, which can be challenging on dynamic construction sites.
- ✓ **Safety Concerns**: AR devices need to be integrated with protective gear like hard hats to ensure worker safety.

✧ **Future Outlook**

Despite challenges, the decreasing cost of AR development tools and increasing industry awareness make it a viable solution for boosting construction efficiency. Small-to-medium enterprises are gradually beginning to harness AR's benefits as open-source mobile toolkits become more accessible.

✧ **Conclusion:** AR is poised to revolutionize the construction industry by enhancing efficiency, reducing costs, and improving collaboration. AEC companies must embrace digital transformation to overcome traditional productivity barriers. As AR technology evolves, its integration with construction workflows will become more seamless, fostering a smarter and more efficient industry.

I understand that reading the text above may not appeal to everyone. Instead, feel free to explore the **YouTube Shorts** provided in the link below.

https://youtu.be/PcwWqeiLtkE?si=vOxySLhPX554o4Xp

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NON - TECHNICAL ARTICLES

ধর্মই কি পরিচয়ের মানদণ্ড?

মানস সাহা
("চতুর্থ বর্ষ)

আমার কলম কোনো মন্দিরের দেয়াল আঁকে না, কোনো মসজিদের মিনারও গড়ে না। আমি কোনো বিশেষ ধর্মের পক্ষে লিখি না, লিখতে পারি না- কারণ প্রত্যেক ধর্মের শিকড়ে যে করুণা, যে ভালোবাসা, যে সহিষ্ণুতা নিহিত আছে, তাকে অসম্মান করার অধিকার আমার নেই। কিন্তু যখন ধর্ম প্রাণ রক্ষা করতে শেখায়, আবার সে ধর্মের ছায়ায় দাঁড়িয়ে নির্বিচারে প্রাণ কেড়েও নেয়, তখন কেবল ধর্মকেই কলঙ্কিত করে না, কলঙ্কিত করে সমগ্র মানবজাতিকেও____

কাশ্মীরের পেহেলগাঁও-তে সম্প্রতি ঘটে যাওয়া জঙ্গি হামলা আরেকবার চোখে আঙুল দিয়ে দেখিয়ে দিল-আমরা এখনো ঘৃণার রাজনীতির বলয়ে বন্দি। একটি ভূখণ্ড, একটি জাতি, একটি ধর্ম-এসব বিভাজনের রেখা কেবল মানচিত্রে নয়, মানুষের হৃদয়ে গভীর ক্ষত সৃষ্টি করে। ঘটনাটি হয়তো একদিন ইতিহাসের পাতায় চাপা পড়ে যাবে, কিন্তু তার ছায়া রয়ে যাবে সমাজের গভীরে, বিশ্বাস আর মানবতার মাঝখানে। পেহেলগাঁওর এই রক্তাক্ত বিকেল ধর্মের নামে পরিচালিত রাজনীতির নিষ্ঠুরতম বহিঃপ্রকাশ। হামলাকারীরা ধর্মীয় পরিচয় দেখে হত্যা করার মধ্যেই লুকিয়ে রয়েছে মৌলিক সংকেত-ধর্ম আজ আদর্শ নয়, অস্ত্র। ধর্মের মোড়কে লুকিয়ে থাকা ক্ষমতার রাজনীতি আজ যতটা না ঈশ্বরের প্রতি বিশ্বাস জন্মায়, তার চেয়ে বেশি জন্ম দেয় বিভেদ, বিদ্বেষ আর মৃত্যুর। পাকিস্তান আজ শুধুমাত্র একটি বিপথগামী রাষ্ট্রের প্রতিচ্ছবি, যেখানে ধর্মের নামে মানুষকে বিভাজিত করা হচ্ছে, যেখানে নাগরিকের অধিকার প্রতিনিয়ত লঙ্ঘিত হচ্ছে, আর সীমান্তে শান্তি প্রতিষ্ঠার বদলে সংঘাতের আগুন জ্বালানো হচ্ছে। একটি রাষ্ট্র যা প্রতি পদে অস্থিতিশীলতা, সন্ত্রাসবাদ এবং বৈষম্যের বীজ বুনে চলেছে, তার প্রতি কোনোরকম সহানুভূতি বা সমর্থন প্রদর্শন করার কোনো কারণ নেই।তাদের অপমানজনক, একের পর এক শত্রুতাপূর্ণ কর্মকাণ্ডের জন্য, আমি পাকিস্তানকে ধিক্কার জানাই। যখন তারা নিজের ভূখণ্ডে সন্ত্রাসবাদী কার্যক্রমে মত্ত, তখন তাদের থেকে শান্তির আশা কেমন করে করা যায়? পাকিস্তানের এই অস্থিরতা, সংঘাত এবং সন্ত্রাসী কার্যকলাপ, আমাদের কাছে কোনো মূল্য নেই। আমার দৃঢ় বিশ্বাস-

ভারতীয় জনগণের শান্তি, নিরাপত্তা এবং অগ্রগতি কখনোই পাকিস্তানের সঙ্গে কোনো সম্পর্কের মধ্যে নিহিত থাকতে পারে না। বরং, আমরা আমাদের সীমান্তে শক্তিশালী ও সুরক্ষিত থাকতে চাই, যেখানে পাকিস্তান কোনভাবেই আমাদের পথের কাঁটা হতে না পারে। নিশ্চিতভাবে! ভারত সরকার পাকিস্তানের সঙ্গে সম্পর্কের বিষয়ে যে সিদ্ধান্ত নিয়েছে, সেটি দেশের নিরাপত্তা ও সার্বভৌমত্বের রক্ষায় একটি গুরুত্বপূর্ণ পদক্ষেপ বলে বিবেচিত হচ্ছে। ভারত সরকার সম্প্রতি পাকিস্তানের সঙ্গে সমস্ত সম্পর্ক খারিজ করার ঘোষণা দিয়েছে, যা একটি কঠোর বার্তা পাঠিয়েছে। এই সিদ্ধান্তের মাধ্যমে পাকিস্তানের প্রতি ভারত সরকারের অসন্তুষ্টি এবং তাদের নিরাপত্তা, সন্ত্রাসবাদী কার্যক্রম, এবং সীমান্তে উত্তেজনা বৃদ্ধি নিয়ে একটি স্পষ্ট প্রতিক্রিয়া জানানো হয়েছে। ভারত

সরকার এই পদক্ষেপের মাধ্যমে পাকিস্তানের প্রতি পরিষ্কারভাবে তাদের অবস্থান তুলে ধরেছে এটি একটি প্রতিরোধের ইঙ্গিত, যাতে আন্তর্জাতিক অঙ্গনে ভারত তার নিরাপত্তা ও সার্বভৌমত্ব রক্ষা করতে সক্ষম হয়। পাকিস্তানের বিরুদ্ধে ভারত সরকারের এই কঠিন সিদ্ধান্ত রাজনৈতিক প্রেক্ষাপটে একটি গুরুত্বপূর্ণ মাইলফলক হতে পারে, যেখানে কূটনৈতিক সমঝোতা ও শান্তির প্রচেষ্টার সাথেও নিরাপত্তা বজায় রাখার প্রয়োজনীয়তা অনুভূত হচ্ছে।

বিগত কয়েক দশক ধরে ক্রমাগত যে মৌলবাদী রাজনীতি কাশ্মীরের সামাজিক কাঠামোকে ভেঙে দিয়েছে, তার প্রতিফলন আজকের এই হামলা। আজকের দিনে কাশ্মীর শুধুমাত্র বন্দুকের নয়, মননের যুদ্ধক্ষেত্র। এই যুদ্ধে পরাজিত হচ্ছে সংলাপ, সহিষ্ণুতা, মানবতা। বিজয়ী হচ্ছে মৌলিক ভয়। আর ভয়ের মাটি সবচেয়ে উর্বর হয় ধর্মীয় মেরুকরণের বীজবপনে। কোনো সমাজ যখন ধর্মীয় পরিচয়ে মানুষের জীবন-মৃত্যুর সিদ্ধান্ত নিয়ে ফেলে, তখন সেই সমাজ তার সভ্যতার দাবি হারিয়ে ফেলে। পেহেলগাঁওর ঘটনাটি এই সভ্যতার পরাজয়ের প্রামাণ্য দলিল। এখানে প্রশ্ন শুধু কে মারা গেল নয়, বরং কেন মারা গেল। উত্তরটা স্পষ্ট। এমনকি ঘৃণা জাগানো হয়েছিল ধর্মের নাম ব্যবহার করে, রাজনৈতিক উদ্দেশ্যে, অবচেতনভাবে। আজকের ভারতে ধর্ম যতটা না আধ্যাত্মিকতার পথ, তার চেয়ে বেশি পরিচয় রাজনীতির ইন্ধন। ব্যক্তিগতভাবে আমি মনে করি, পেহেলগাঁওর হত্যাকাণ্ড আমাদের সেই চরম সত্যের মুখোমুখি দাঁড় করায় এখানে মানুষ প্রথমত হিন্দু বা মুসলমান, তারপর ভারতীয়। এই মনোভঙ্গি পাল্টাতে না পারলে কোনো সংবিধান, কোনো সেনাবাহিনী বা কোনো কূটনৈতিক প্রচেষ্টা কিছুই কাজে লাগবে না সেটা কাশ্মীরের জন্য হোক বা অন্যকিছু। কাশ্মীরের এই হামলা যেন আমাদের মনে করিয়ে দিল, অমিত সম্ভাবনার দেশ ভারতবর্ষ আজও কুপমণ্ডুক রাজনীতির কাছে কতটা অসহায়।

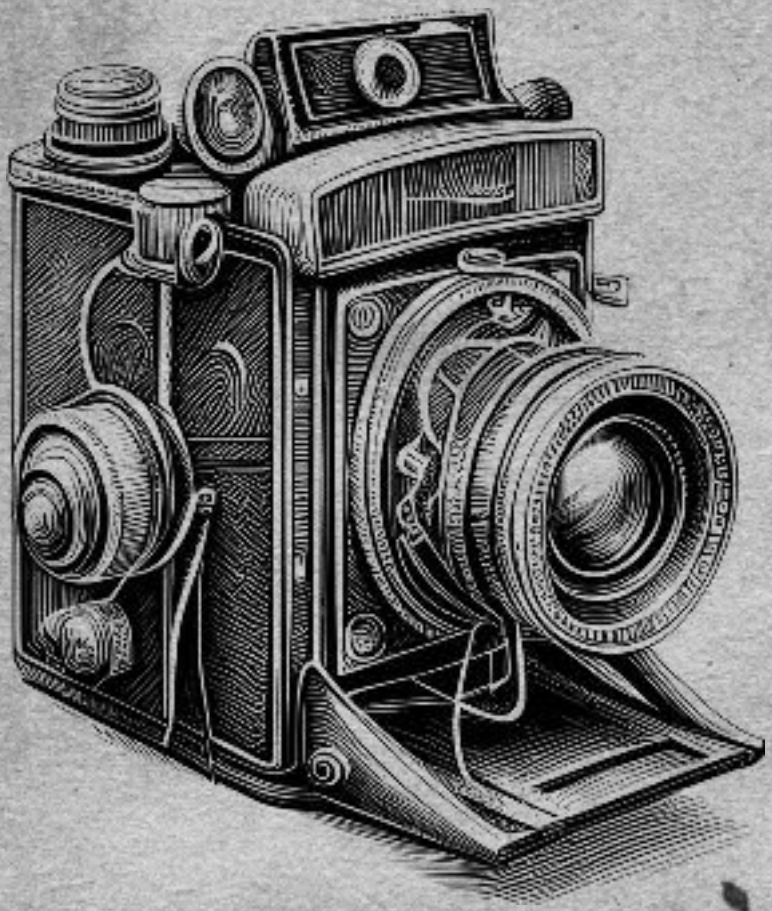
স্বাধীনতার সাতাত্তর বছর পরও, মানবিক স্বাধীনতা আমাদের কাছে আজও বিলাসিতা। সেক্যুলারিজম কোনো আইনি অনুচ্ছেদ নয়, কোনো নীতিগত বাক্যবন্ধ নয়; এটি একটি বেঁচে থাকার দর্শন, যেখানে মানুষের পরিচয় ধর্মের চেয়ে বড় হয়ে ওঠে। আমি বিশ্বাস করি, সত্যিকারের ধর্মনিরপেক্ষতা মানে ধর্মকে অস্বীকার করা নয় বরং সব ধর্মের মাঝে মানবতার এক গভীর সেতুবন্ধন নির্মাণ করা। আমাদের সংবিধান যে সমানাধিকারের কথা বলে, তার মূল চেতনা এই সেক্যুলারিজমেই নিহিত। কিন্তু যখন রাজনীতি ধর্মের বিভাজনকে পুঁজি করে সমাজের রক্তে বিষ ঢালে, তখন সেক্যুলারিজম কেবল একটি নীতিশাস্ত্র নয়, একটি সাহসিকতার নাম হয়ে দাঁড়ায়। পেহেলগাঁওর রক্তাক্ত ঘটনাই আমাদের চোখে আঙুল দিয়ে দেখিয়ে দিল যেখানে ধর্ম পরিচয় হয়ে দাঁড়ায় বাঁচা-মরার মাপকাঠি, সেখানে সেক্যুলারিজমের অপরিহার্যতা আরো তীব্রভাবে ভিৎকার করে ওঠে। এই দেশ আজ যতদিন তার বৈচিত্র্যের মধ্যে ঐক্য খুঁজে পাবে না, যতদিন মানুষ মানুষের আগে হিন্দু, মুসলমান, শিখ, খ্রিস্টান হবে, ততদিন সেক্যুলারিজম আমাদের কাছে কেবল একটি অসমাপ্ত স্বপ্ন হয়ে থাকবে। আজ পেহেলগাঁওর মৃতদেহগুলো আমাদের সামনে প্রশ্ন ফেলে আমরা কি সেই স্বপ্ন বাস্তবায়িত করার সাহস দেখাতে পারবো? নাকি বারবার ঘৃণার পায়ের নিচে পিষে যেতে থাকব? প্রশ্ন উঠেছে মৌলবাদ নিয়েও। মৌলবাদ হলো সেই বিকৃত মানসিকতা, যা ধর্মের শুদ্ধতাকে বিকৃত করে। মৌলবাদ কোনো একক ধর্মের সমস্যা নয়; এটি মানবতার শত্রু। যে মুহূর্তে ধর্মকে অস্ত্র বানিয়ে তলোয়ার তুলে ধরা হয়, সেখানেই হারিয়ে যায় আসল ধর্মের আলো। পেহেলগাঁওর হামলাকারীরা যদি সত্যিকারের ধর্মবিশ্বাসী হতেন, তবে জানতেন-একটি প্রাণ বাঁচানো হাজারটি ইবাদতের চেয়েও শ্রেয়। আমার এই লেখার মূল উদ্দেশ্য কোনো ধর্মের প্রতি আস্থা বা অবিশ্বাস প্রদর্শন নয়। কারণ আমি বিশ্বাস করি-ধর্ম তার শুদ্ধতম রূপ নেয় মানবতার জন্যে আশ্রয়, এবং শান্তির জন্য পথনির্দেশ। সত্যিকারের হিন্দু, মুসলিম, শিখ, খ্রিস্টান, বৌদ্ধ সবাই প্রেম, সহিষ্ণুতা আর ন্যায়ের কথা বলে। আমার আঘাত সেই বিকৃত চেতনার বিরুদ্ধে, যারা ধর্মের পবিত্র নাম ব্যবহার করে রক্তপাতের রাজনীতি চালায়। যখন পেহেলগাঁওর আকাশে নিরপরাধ মানুষের আর্তনাদ ভেসে ওঠে, তখন আঘাত লাগে শুধু ধর্মেরই নয় আঘাত লাগে মানবতারও। আমার কলম তাই কোনো মন্দির, মসজিদ, গির্জা বা গুরুদ্বার ভাঙার পক্ষে নয় আমার কলম কেবল সেই ঘৃণার দেওয়ালগুলিকে ভাঙতে চায়, যেগুলো মানুষের বুকে মানুষের প্রতি অবিশ্বাস বপন করে। আমি কেবল মানুষের পক্ষেই আছি ধর্মের নয়, ধর্মের নামে চালানো অন্যায়েরও নয়।

THE HURT OF MIND AND HEART WHEN FRIENDSHIP FALLS APART: THE PAIN OF A SEVERED BOND

Soumyadeep Namhata
(1ST YEAR)

আবেগ নামক এক মায়াবী বস্তুর ক্রূর চাহনি ও বেত্রাঘাতের বশবর্তী হয়ে আমার সাহিত্যের ছুরি শাণিত হওয়ায় তোদের তিনজনের প্রতি কিছু কর্তিত পদগুচ্ছ

ইহা পুনর্মিলন এবঃ পুনর্জাগরণের ফয়েলে আবৃত এবঃ পুনরাগমনের কামনায় আবেগের আবেশে উপছে পড়া এক আনন্দ-হাসি-মজার অধ্যায়ের এক বিষাদ-ক্লিষ্টময় সমাপ্তির প্রায়সারাঃশ যা সেই কালিমালিপ্ত এবঃ পঙ্গুগ্রস্ত অধ্যায় রূপী বন্ধুত্বকে আবার মনের গহন অন্ধকার থেকে, সময়ের প্রবহমানতায় অবচেতন মনের মনস্তাত্ত্বিক এবঃ বৌদ্ধিক মানচিত্রের ধুলিময়-ফ্যাকাশে-বিবর্ণ স্মৃতির; স্মৃতি রোমন্থনের সুযোগের পথ খুলে ক্ষমাভিক্ষা ও প্রার্থনার সুড়ঙ্গের মাধ্যমে বন্ধুত্বের ক্ষীণ হয়ে যাওয়া বন্ধনকে; কিছু মম মানসপটের কোণাধারে উদিত মন্তব্যের প্রতি দৃষ্টিভঙ্গির দিকের সামান্যতম কৌণিক সরণের ফলশ্রুতি হিসেবে এক অদৃশ্য জুজুর আগমনে তোমাদের মানসে যে রুদ্রপ্রতাপ ভাবমূর্তির এক অনিচ্ছাকৃত ছায়ার সঞ্চার ঘটেছিল, তাতে আমাদের চতুর্পাক্ষিক সম্পর্কের প্রাচীরের অভ্যন্তরীণ ফাটলকে পূর্বাবস্থায় ফিরিয়ে আনতে; পুনরায় দৃঢ় থেকে দৃঢ়তর করে সেই পঙ্গু হয়ে যাওয়া, পরস্পরের প্রতি নিয়মিত ত্রুটিপূর্ণ বোধনপ্রক্রিয়ার অদৃশ্য তাড়নায় সৃষ্ট কদর্য ও পঙ্কিলাবর্ত বন্ধুত্বকে এবঃ সংশ্লিষ্ট সময়ের ঘেরাটোপে তোদের প্রতি আমার অচেতনতায়,অনিচ্ছুকভাবে কোনোরূপ সম্মানহানিকর,অপ্রীতিমূলক কর্মকাণ্ডের যে বিষাক্ত তীর বর্ষিত হয়েছিল তাহার ফলে তোদের মানসে আমার চরিত্র,ব্যক্তিত্ব এবঃ সর্বোপরি আমার আত্ম-গুণাবলির ভাবধারা লইয়া যে সন্দেহ এবঃ উদ্বিগ্নতার নির্যাস কর্কট রোগের ন্যায় ছড়িয়ে পড়েছিল, যাহা পুনরায় বন্ধুত্বের বন্ধন কে চিরতরে কেটে ফেলতে ও ওই বন্ধুত্বের প্রাণসত্তাকে পূর্ণদমে হত্যা করতে ত্বরান্বিত করেছিল; আমাকে আত্মদ্রোহিতার কারাগারে রুদ্ধ করে ওইদিন অশেষ অভ্যন্তরীণ নিপীড়নের শিকার হয়ে নিজেকে অদৃষ্টের শাপান্ত বলিয়া বোধ হয়েছিল যাহা আমার মানসের ধী-র সীমানায় ধরা পড়ে পরিস্থিতির অশেষ ও জ্বালাময় উপহাস ও এক অদৃশ্য বন্ধনের শিকলে বাঁধা পড়া সত্ত্বেও , সেই বন্ধুত্ব কে আবার সর্বোৎকৃষ্টদ্যমে চাঙ্গা করে নেওয়ার এবঃ সর্বোপরি বাস্তবরূপী হাতুড়ির করাঘাতে পিষ্ট ও অর্ধমৃত বন্ধুত্বে সঞ্জীবনী মন্ত্রের দ্বারা প্রাণসঞ্চারের কাতর , পিপাসার্ত আর্জি জানাই যা আমার আবেগমাখা হৃদয়ের এক অপ্রস্ফুটিত কলি।



PHOTOGRAPHY

"The camera sees more than the eye, so why not make use of it?" – Edward Weston

SAHABUDDIN SEKH

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

SAHABUDDIN SEKH

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

UDIT SARKAR

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

UDIT SARKAR

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

ANKAN KUMAR MAJUMDER

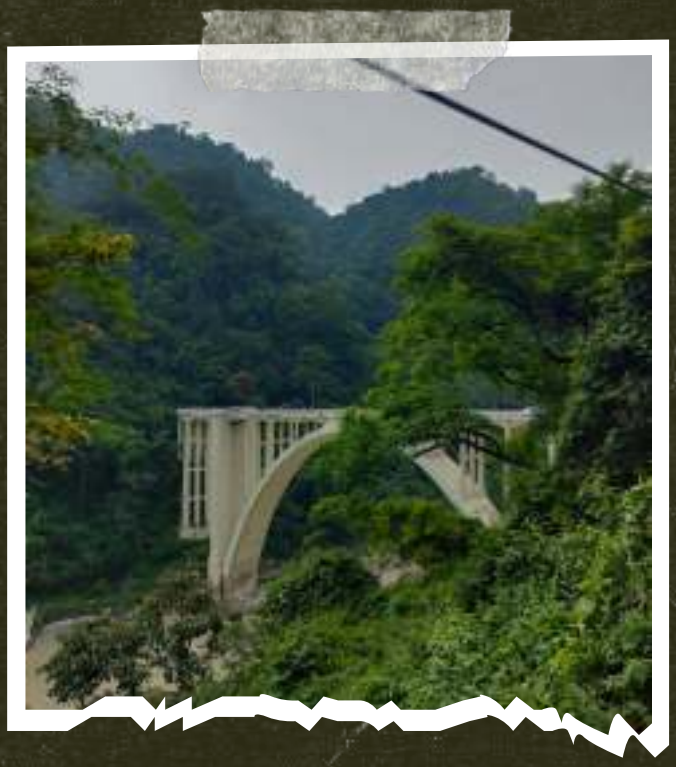
3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

CHAUDHARY FAHIM AHMAD

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING



DEVSMRITI MAJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

SHOVAN GHOSH

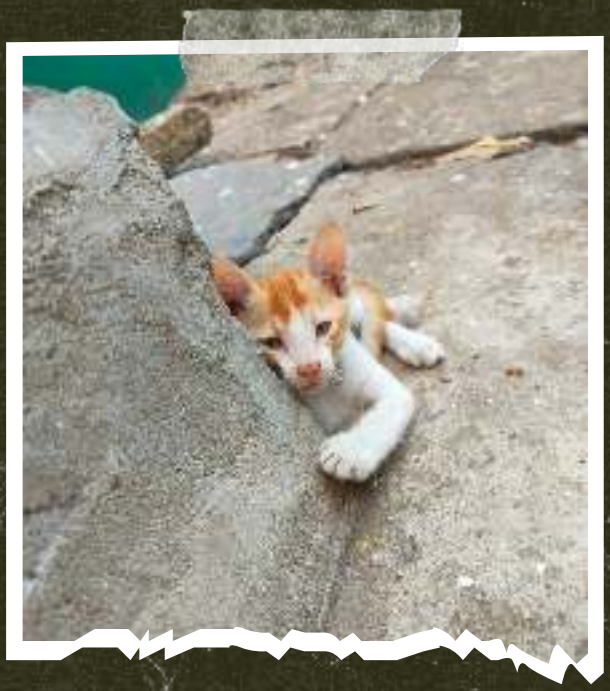
3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

ANINDYA CHATTERJEE

FINAL YEAR

DEPARTMENT OF CIVIL ENGINEERING



PRALAY DAN

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

RIMPA GARAI

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

ANIRBAN KAR

FINAL YEAR

DEPARTMENT OF CIVIL ENGINEERING

SHUVAM MAJEE

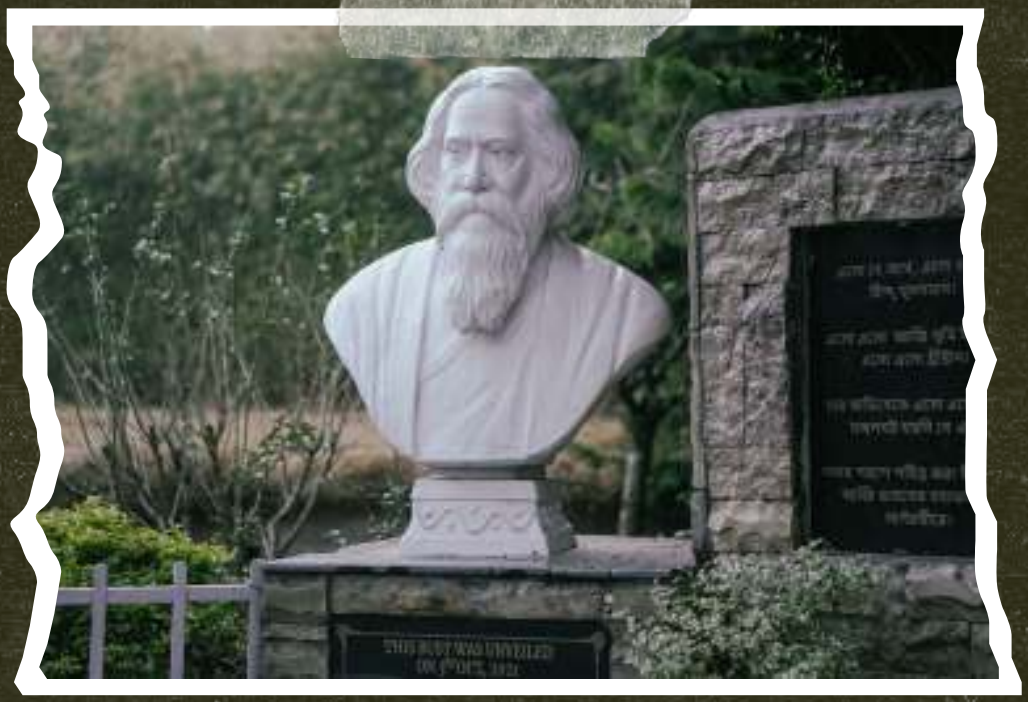
FINAL YEAR

DEPARTMENT OF CIVIL ENGINEERING

SANDHAYA KUMARI

2ND YEAR

DEPARTMENT OF CIVIL ENGINEERING



NABAJYOTI HALDAR

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

DR. B.C. ROY SOCIETY

ENGINEERING

EVENTS & WORKSHOP

DR. B.C. ROY SOCIETY
ENGINEERING

CMERI
CAMPUS VISIT

TUESDAY, 25 FEBRUARY, 2025

www.bcrec.ac.in

MUNICIPAL SOLID WASTE DISPOSAL SYSTEM (I-MSWDS) DEVELOPED BY CSIR- CMERI, DURGAPUR.

BCREC students from the Civil Engineering batch of 2027 got the opportunity to visit the Integrated Municipal Solid Waste Disposal System (i-MSWDS) developed by CSIR-CMERI, Durgapur. Our institute Dr B C Roy Engineering College, Durgapur has the MoU with the CSIR-CMERI Durgapur and our students with the faculty members Prof. Md Hamjala Alam, Prof. Chanchal Das and Prof. Koyndrik Bhattacharjee visited the CMERI campus. They got the idea about the different units like;

1. Mechanized Segregator,
2. Biogasification section,
3. Vermi-composting section,
4. Biomass Briquetting and Gasification section, and
5. Polymer Waste Management section

These sections and their functions aim for the sustainable solid waste management and modern environmental engineering techniques. This experience will enrich their academic knowledge as well as practical understanding of waste-to-energy systems

DR. B.C. ROY SOCIETY ENGINEERING

MEGALITH
IIT KHARAGPUR

SATURDAY, 08 MARCH, 2025

www.bcrec.ac.in

INDIA'S LARGEST CIVIL ENGINEERING TECHNICAL FEST MEGALITH IIT KHARAGPUR

A total of 18 students participated in this year's IIT Kharagpur Civil Engg Dept Tech Fest MEGALITH. 1st and 2nd prizes in the model competition were won by BCREC Civil Dept students. 3rd Prize in the bridge building competition 'Instridge' was won by another group. It was a very good achievement as students from other premier Institutes of the country participated in the competitions. Our students compited with them won the prizes. Congratulations to all the winners.

DR. B.C. ROY SOCIETY ENGINEERING

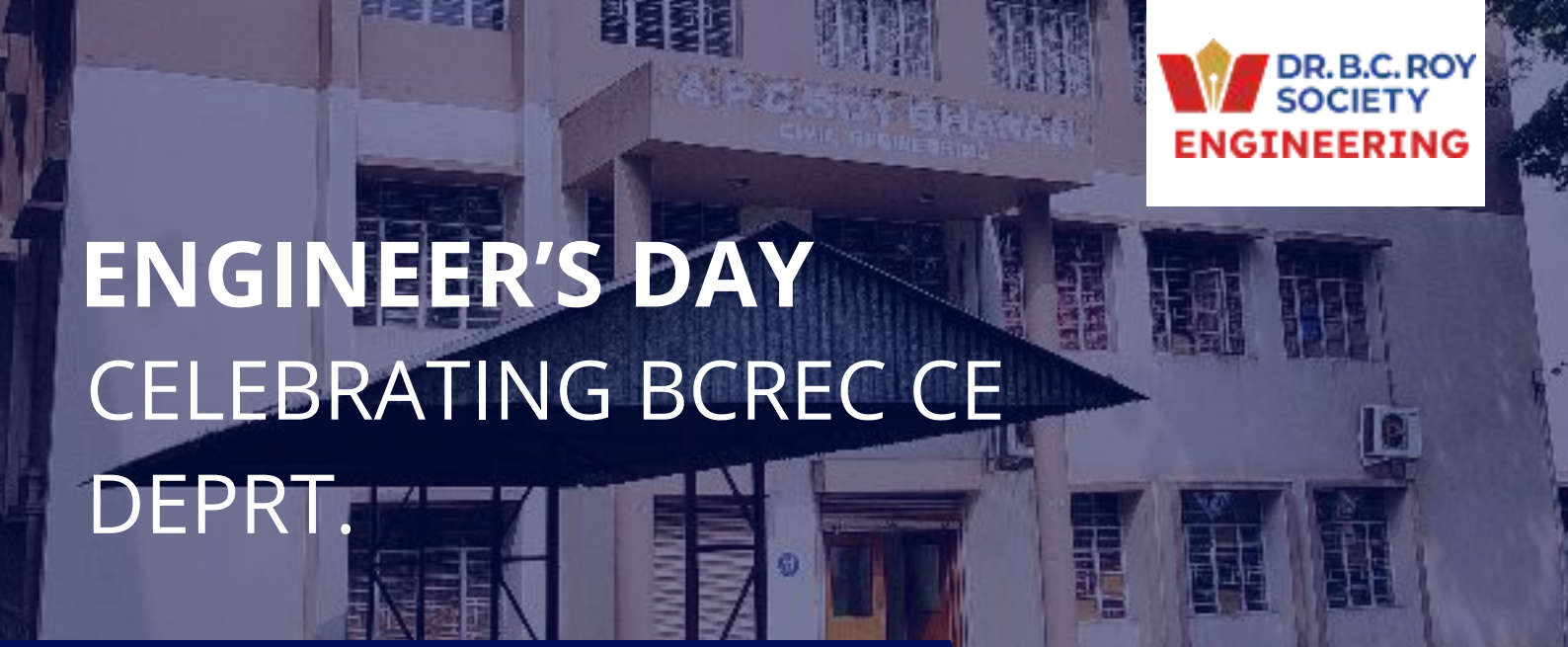
ESSAR OIL AT LOCAL EXTRACTION SITES

TUESDAY, 12 NOVEMBER, 2024

www.bcrec.ac.in

DURGAPUR DID ON-SITE SOIL TESTING FOR ESSAR OIL AT LOCAL EXTRACTION SITES

The Civil Engineering Department at Dr. B. C. Roy Engineering College, Durgapur did on-site soil testing for Essar Oil at local extraction sites. This is the second engagement in this month, where Dr. Shovan Roy and Ajitesh Bhattacharya visited their site for providing their expertise of soil testing.



DR. B.C. ROY SOCIETY ENGINEERING

ENGINEER'S DAY

CELEBRATING BCREC CE DEPRT.

THURSDAY, 05 SEPTEMBER, 2024

www.bcrec.ac.in

DEPARTMENT OF CIVIL ENGINEERING STUDENTS HAD AN AMAZING TIME CELEBRATING ENGINEER'S DAY IN ASSOCIATION WITH (ISET STUDENT'S CHAPTER) AND INSTITUTION'S INNOVATION COUNCIL (IIC) OF BCREC

In association with Indian Society of Earthquake Technology (ISET Student's Chapter) and Institution's Innovation Council (IIC) of BCREC, Department of Civil Engineering Students had an amazing time celebrating Engineer's Day with a special event and an exciting quiz program dedicated to the spirit of innovation and engineering excellence! Students and faculty came together to honor the contributions of engineers on the occasion of Dr. M. Visvesvaraya and to participate in a fun-filled quiz that tested their knowledge across various engineering fields. The program of this year based on the theme of "Sustainability using AI Driven Technologies" Soumyadip Das, Assistant Professor, Department of Civil Engineering, BCREC, Life Member of ISET and Faculty Coordinator of ISET Student's Chapter in BCREC hosted the program in the seminar hall of APC Roy Bhawan, Department of Civil Engineering, BCREC. Prof. (Dr.) Sanjay Sengupta, Professor and Head, Department of Civil Engineering, BCREC delivered the welcome address to the gathering and discussed the importance of the program and this year's theme. Dr. Taniya Chakraborty, Assistant Professor, Department of Basic Science & Humanities, BCREC was there and acted as the moderator of the quiz.

The quiz was packed with challenging questions, friendly competition, and a lot of enthusiasm! Congratulations to all the participants, and a special shoutout to the winners who showcased their impressive engineering knowledge!

A big thank you to every student who helped organize this event and to all the participants who made it a success. Let's continue to innovate, inspire, and engineer a better future together!

Happy Engineer's Day to all the brilliant minds out there!

DR. B.C. ROY SOCIETY ENGINEERING

OOMS

BITUMEN AND POLYMER PLANT

WEDNESDAY, 04 SEPTEMBER, 2024

www.bcrec.ac.in

DURGAPUR DID ON-SITE SOIL TESTING FOR ESSAR OIL AT LOCAL EXTRACTION SITES

Industrial site visit of Civil Engg 3rd year students to Ooms Bitumen and Polymer plant in Panagarh where a new age cutting technology of mixing polymer and bitumen for road construction.

DR. B.C. ROY SOCIETY ENGINEERING

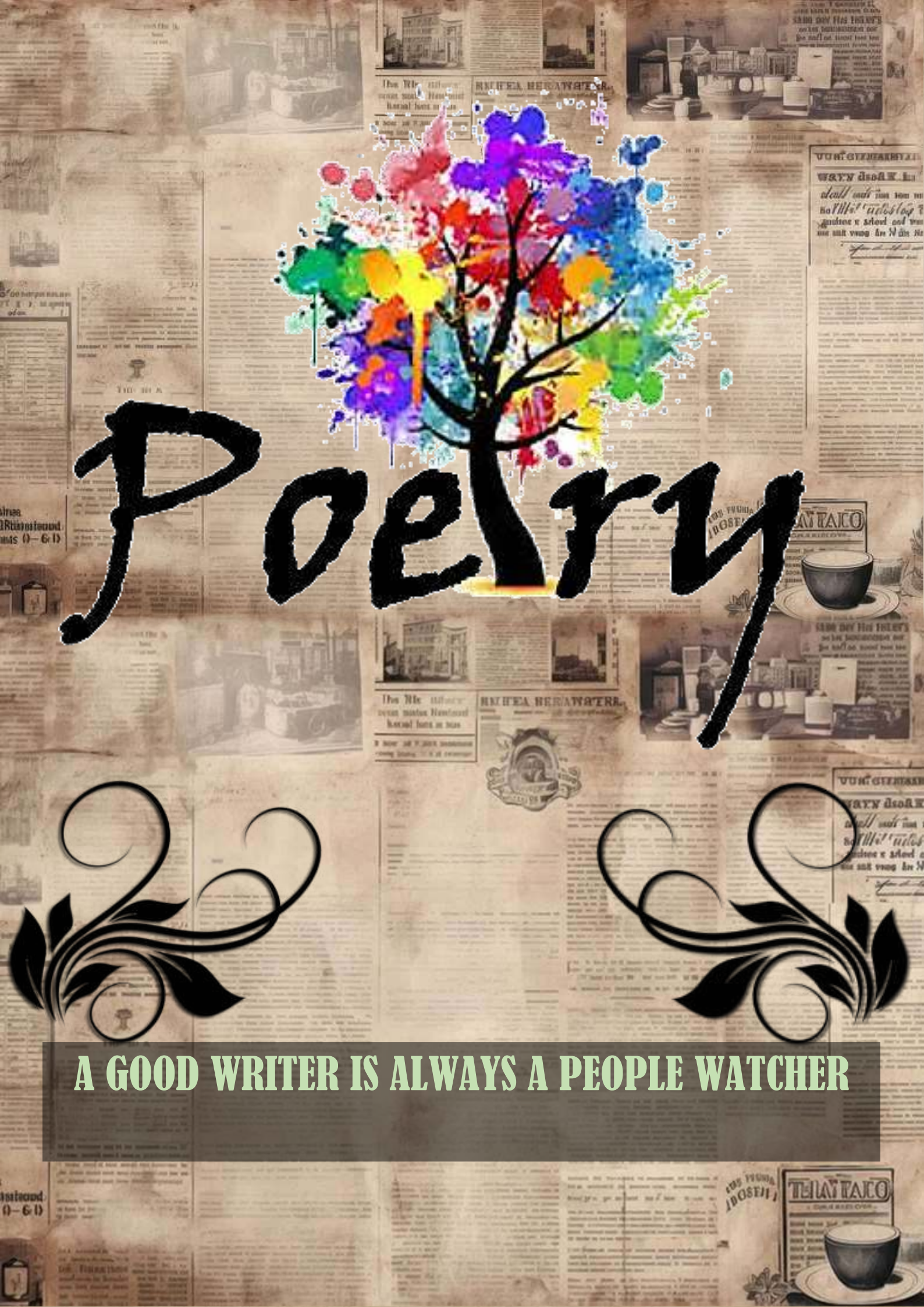
MACHINE LEARNING FOR STRUCTURAL ENGINEERING ADVANCEMENTS

WEDNESDAY, 28 AUGUST, 2024

www.bcrec.ac.in

ADVANCEMENTS IN MACHINE LEARNING FOR STRUCTURAL

We are thrilled to share that our recent seminar (on 28 August, 2024, in the Seminar Hall, APC Roy Bhawan, BCREC) on “Advancements in Machine Learning for Structural Engineering : From Identification to Design" in association with The Institution of Engineers (India) (IEI) Durgapur Local Centre under the IEI Students' Chapter of Civil Division (CV Division) was a tremendous success. It was an incredible opportunity to dive deep into various applications of Machine Learning and AI tools for the Civil Engineering Structures with insightful presentations and engaging discussions led by our expert speakers. Prof. (Dr.) Sanjay S Pawar graced the chair of chief guest and Prof. (Dr.) Sanjay Sengupta was the guest of honor. Dr. Aloke Kumar Datta, (Associate Professor, Department of Civil Engineering, NIT Durgapur), Dr. Dipankar Dutta (Associate Professor, Department of Computer Science and Engineering, University Institute of Technology, Burdwan) and Dr. Gour Sundar Mitra Thakur (Associate Professor & Head, Department of CSE(AIML), Dr. B. C. Roy Engineering College Durgapur) were the guest speakers. Dr. Sayantan Dutta, along with Soumyadip Das were the coordinators for this event. On behalf of IEI Durgapur Local Centre, Dr. Bimal Das (Honorary Secretary, IEI DLC), Mr. Debi Prasad Das (Convenor, IEI DLC, CV Division), Prof. Bappaditya Das, Institutional Coordinator, IEI Students' Chapter, BCREC, Mr. Manik Banerjee, Mr. Sandip Das and Mr. Raj Mukherjee were present. Dr. Datta presented his recent work on structural engineering using AI. Dr. Dutta and Dr. Mitra Thakur described the basics of Machine Learning and the usefulness of AI tools in Civil Engineering. The students asked a few questions related to the AI tools and from where they should start as beginners! Thanks to all the participants, speakers, and students like Chaudhury Fahim Ahmed, Manas Saha, Udit Sarkar, Sneha Karmakar, and Joydip Mondal, who made this event possible. Your enthusiasm and active participation truly made it a memorable and impactful seminar.


Poetry
A GOOD WRITER IS ALWAYS A PEOPLE WATCHER

EUPHEMISM OF WORLD

Soumyadeep Namhata
(1ST YEAR)

The God send us like a seed
Through people in the world's need.
Believe in yourself,
You are the one to help.
Take Disney or Ford,
A higher destiny you can afford.
Or, take Edison or Wright brother,
The rare immortality, you can gather.
They all left mark in the world,
A great claim also you can hold.
The world teased them, was pulling down,
In every time with a strong stance, they got the crown.
There are lots of opportunities,
You can be one of the great personalities.
Yes, Can! Can! Can! You can change the world,
You can save the deprived kids dying from cold.
You see the kids in the street,
They have not enough to eat.
A summer's disregard;
The broken bottle top,
Are blowin' in my mind,
Can 't you do? can 't you be some kind?
The inclinations and droughts are everywhere,
Who am I? Who are you? to be blind, pretending not to see needs of their.
The powers are pressing down,
The oppressed are doing moan.
Where are the enthusiasms?
Where are the optimisms?
Are they gone to be set in dark?
Can't these be used to mark?
Study the great stories,
And digest these, no worries.
Dissect these with a scientist mind,
The great outcomes you must bind.
Start with the man in the mirror,
No message could have been any clearer.
I'm saying you to change your ways,
You will reach to a better place.

সিস্টেম

অনিন্দিতা সেনগুপ্ত

বড় হয়ে তুই, কি হবি? নাম করা এক ডাক্তার?
বৃথা স্বপ্ন দেখো না মা,
এই পচন ধরা নষ্ট সিস্টেম ডাক্তার আমায় হতে
দেবে না।
আচ্ছা না হয় ডাক্তার হলি, মস্ত বড় ইঞ্জিনীয়ার?
রাস্তা-রেল-মেট্রো-সেতু, গড়বি কত দেখার মত।
সে সব দিন গেছে মা গো,
আজ এ আই গড়বে সব, বাকী জগৎ অন্ধকার।
আচ্ছা বাবু, তাহলে হবি ?
নামী জ্ঞানী কোনো প্রফেসর।
ক্ষমতাহীন আজ যে ,সেই মানুষ গড়ার কারিগর।
সস্তা মেকী চোখ ধাঁধানো ,শিক্ষার এই বাজারে
আজ ডিগ্রী কেনা -বেচা চলে শুধুই সস্তাদরে।
আচ্ছা তবে কি হবি বল্?
মস্ত বড় ব্যারিস্টার?
মাগো, যেথায় বিচার ই কাঁদে নিরালায়,
ব্যারিস্টার তো পুতুল ই হবে,
ছেলের হাতের খেলনায়।
তবে তোকে নিয়ে যে এত স্বপ্ন,
কিছুই সত্যি হবে না?
হবে গো মা , কথা দিলাম,
তোমার ছেলে মানুষ হবে।
এই পচনধরা সিস্টেমটার
শক্ত হাতে হাল ধরবে।।

জানি না এই পচনধরা System টাকে সত্যি কোনোদিন Recover করা যাবে কিনা

THE ART OF CIVIL ENGINEERING

Shyam Sundar Roy
(3RD YEAR)

Under the sky so wide and blue,
We build the world for me and you.
With steady hands and plans so clear,
Civil engineers work year by year.
From tall bridges that touch the sky,
To smooth roads where cars pass by,
We use stone and steel with care,
Creating wonders everywhere.
The sound of cranes, machines at play,
We work to build a better way.
Strong foundations, tall and true,
Dreams of the future coming through.
Big dams hold rivers safe and still,
Tall towers rise with skill and will.
Ports and railways, paths so grand,
Our work is seen across the land.
With AutoCAD and tools so smart,
We plan each project from the start.
Buildings strong, they stand so tall,
Ready to face the storms and all.
We work through rain, wind, and sun,
To make life better for everyone.
For safety first, we take a stand,
Building dreams with careful hands.
So, let us cheer for those who build,
With passion strong and dreams fulfilled.
Civil engineers, with hearts so true,
We shape the world for me and you!

IMMORTALITY

Soumyadeep Namhata
(1ST YEAR)

If you want to take the nectar of immortality,
So, master on your work and passion.
If you try to work hard, there's a possibility,
And if you get your obsession.
It is a rare thing,
Don't clip your wing.
Enhance, empower, improve your being,
Let the change in the world you do bring.
You do embrace gratitude,
And thank to the one,
Who helped you to bring a little bit fortitude.
It is all about,
Engraving your name,
To the heart center of everyone, no doubt.
It's all about gaining all the fame.
The more you can affect the lives of people,
The more you will be reaching the top.
The more you will be famous, simple!
The more you will be non-stop.

INSPIRING LIGHT: A TRIBUTE

Soumyadeep Namhata
(1ST YEAR)

I learned a lot, a lot from you,

I'd never forget to show the respects due.

You are a candle full of purity,

You've lit the others up with surety.

You have impressed all with your personality,

You have embraced all with serenity.

You are the God's gift, a pot of possibilities,

You are the soul full of utilities.

All the decisions you took were marvellous,

To all the difficulties you were poisonous.

You are the man with all possibilities,

You are the man full of novelties.

You are the man who never missed a chance,

Who raised his hand and voice with a positive stance.

You are the man who stretched his hand,

To my problems to make these sand.

You are the man with blood and muscle,

You never forget how to hustle

You are the man with the high level of sense of humor ,

You are the man who never spread a little bit of rumor.

With all the difficulties and obstacles you did heal,

Hope to God, in the next year, all things with you can deal. All the obstacles and ups and downs in life you can bear,

Hope your well being with a Grand Happy New Year

আমার ভাষা বাংলা ভাষা

Shovon Ghosh
(3RD YEAR)

বাংলা আমার মাতৃভাষা বলতে লাগে ভয়,
বাংলা বলে হবেটা কি? সবাই তা কয়;
বাংলা আবার ভাষা নাকি? আছে বাংলায় কী?
বাংলা নিয়ে গর্ব করা শুধুই ন্যাকামি।
বাংলায় আছে শুধু আবেগ দিশা নেই কিছু
তবু কেন বাংলা আমায় ছাড়তে চায় না পিছু
চাকরি করতে বলতে কথা ইংরেজীটা চলে।
বাংলাতে বলতে গেলে মুশকিলে সব পড়ে;
তবুও আমি ভালোবাসি পড়তে বাংলাতেই,
অব্যক্ত বাংলা ভাষা লুকিয়ে থাকে আমাতেই।

ভালো আছি

Arghya Mukherjee
(3RD YEAR)

তাকে বলে দাও,

তাকে বলে দাও, আমি ভাবছি না আর তার কথা,

ভাবছি না আর সেই মায়াভরা মুখের ভাষা,

রাখছিনা তার নিত্য দিনের খোঁজ

দেখছিনা তার ফটো ,দেখছিনা তার টুলির টানের খাতা।

সময়ের সাথে বয়ে যায় কত সময়

বদলে যায় দিন থেকে রাত, রাত থেকে দিন

বদলায় না শুধু, তার মায়াভরা মুখের হাসি

তবু তাকে বলে দিও, দেখার চেষ্টা থাকলেও

দেখি না তাকে, শুধু বুকের ভেতর কাজ করে একটাই ভয়

তাকে হারিয়ে ফেলার

সে ভালো আছে, অন্য কোনো গল্পে, অন্য কারোর পাতায়

আমাকে পরে না মনে , দিন শেষে আর স্মৃতির ঘরে

তাকে বলে দিও, আমিও ভালো আছি

অন্ধকার আর একলা ঘরের নিদারুণ একটা কোনে।

তাকে বলে দিও, এখনও পারি নি তাকে হারাতে

পারি নি তাকে ভুলতে, পারিনি তাকে ছাড়তে

সেই তো শিখিয়েছিল আমায় , কীকরে আমার করে রাখতে

রোজ এসে কথা বলে স্মৃতিতে আর স্বপ্নে

এখনো সে দেখায় আমার চোখে সেই অতৃপ্ত আশা

ভুলতে চাইলেও পারি না আমি কারণ, সেই তো আমার ভালবাসা।।

বৃদ্ধি / বেড়ে ওঠা।

Rimpa Gorai
(3RD YEAR)

বয়স যখন পাঁচ তখন শুধুই খেলনা বাটি আর
সাজ,
বছর দশ পর বই খাতার ঘর চুড়ান্ত সব অস্থিরতা
মিলবে এবার সব হিসেবএকটা চাকরির প্রতীক্ষায়।
ছোট্টবেলার প্রতিভাগুলো উঁকি মারে আজও,
অপেক্ষায় রয়ে গেছে কত কত কাজ ও,
'শিক্ষিত নয় শিখছি কতটুকু,
বুঝতে যখন পারি ভাবি এটা বয়স না শুধুই
সংখ্যাগামী
জীবিত থাক সব ইচ্ছেগুলো,
হারিয়ে না যাক সময়গুলো,
মেলাবো আবার বছর ত্রিশ পর
যখনথাকবে শুধুই স্মৃতিরঘর।।

DR. B.C. ROY SOCIETY
ENGINEERING

DRAWING

"Drawing is not just a picture, it's a medium through which feelings and real Truths are expressed"

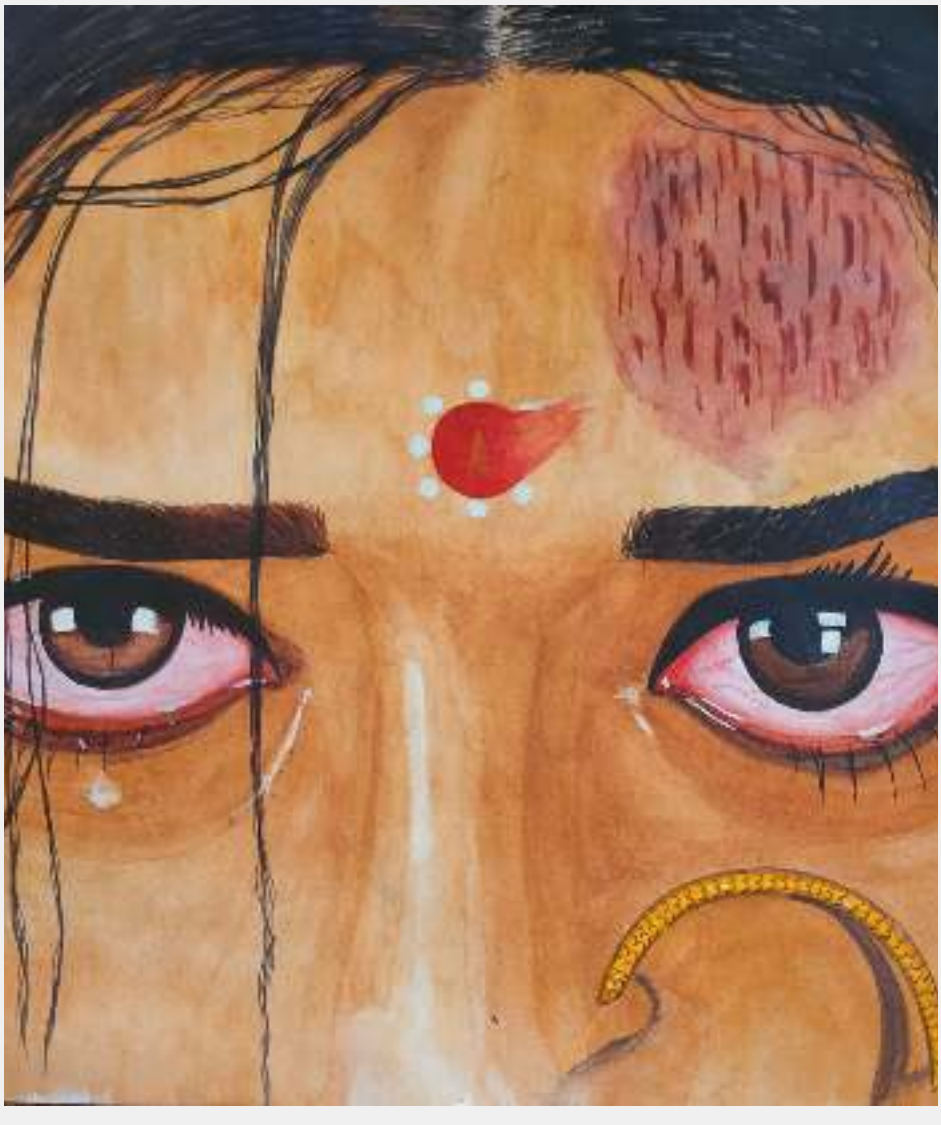
"...🔥🌸'মায়ের' ছোঁয়ায়, 'মায়ের' টানে 'জগৎ' মাতৃময়...
তাই তো আজ, 'তোর' টানে বলি.. জয়...'তারা'-র জয়🔥🌸🙏..."

ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

🔥অগ্নি হতে জন্ম আমার, দ্রৌপদী নাম যার
আগুনকে দাস বানাবে, এতো ক্ষমতা আছে কার??🔥



ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

"প্রশ্ন থেকেই যাচ্ছে সবার মনে
অন্ধকারে কারা ছিল ওই দলে??😔
জাস্টিস তো দিতেই হবে ,নাহলে..
জ্বলবে আগুন ওই রক্তাক্ত সেমিনার হলে।।🔥🔥"

ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

“সত্যিই, কিছু সময় কিছু বিস্ময়কর স্মৃতি আপনার হৃদয়কে খুব বেদনাদায়কভাবে আঘাত করে”

ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

"হাসি মুখের অন্তরালে থাকে😅... এক
নিঃসঙ্গতার খেলাঘর💔...

নিজের ঘর অন্যকে সোপে🖤, অন্ধকার
আজ আমার কুঁড়েঘর🖤..."

ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

🔥"I WILL SACRIFICE MY BLOOD-STAINED LIFE TO THE FIRE OF YOUR LOVE"....🔥

ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

"There is a person hidden inside a person, it will be known in time when the exact time comes"

ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

"SOME MOMENTS OF HAPPINESS COVER ALL THE SORROWS OF LIFE"..🖤💔🖤

ARGHYA MUKHERJEE

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

"তুমি ততটা ভালো থেকো😊... যতটা ভালো থাকলে তুমি আমাকে ভুলে থাকবে💔...."

ARGHYA MUKHERJEE

3RD YEAR

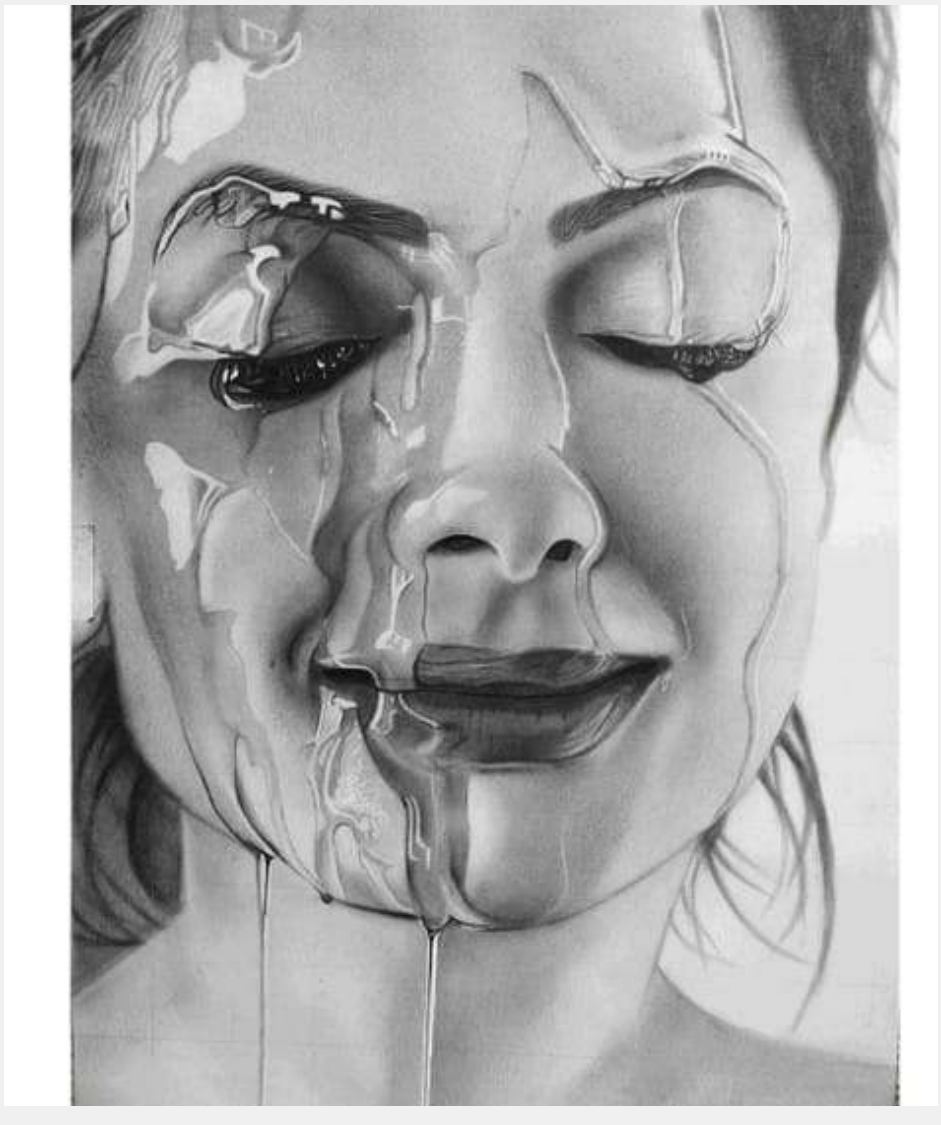
DEPARTMENT OF CIVIL ENGINEERING

"AFTER ALL😌, .

'YOU WILL BE IN MY HEART❤️',

AND....

.. IN SOMEONE ELSE'S DESTINY💔💫"...



SADIK KABIR

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

“SINGLE LIFE IS THE HOME OF MANY HAPPINESS”

SADIK KABIR

3RD YEAR

DEPARTMENT OF CIVIL ENGINEERING

eMagazine

संयोजन

VOL: 5

Dear Readers,

As we prepare for our upcoming Publication, we find ourselves at an exciting juncture, poised to curate another enriching experience for you, our valued audience. With each edition of our E-Magazine, we endeavour to deliver content that both captivates and enlightens. Technical Articles, Literatures, Poetry, Drawings and Photography are invited for our next Publication & also we invited your input and suggestions for content that you would like to see featured.

Guidelines for submission to the magazine:

- ☑ Topic of Article: Technical or Literature
- ☑ Language: English, Hindi and Bengali
- ☑ Word limit: 2000
- ☑ Articles are to be sent as Microsoft Word document.
- ☑ For Photography and Drawings send photos only in jpg/jpeg/png format.
- ☑ Provide Particulars: NAME, Roll. No/Registration No., Year, Branch/ Department, and Contact Number.
- ☑ Students of DR. B. C. Roy Engineering College can send their creations.

You can send suggestions if any at:

- ☑ anupam.biswas@bcrec.ac.in
- ☑ koyndrik.bhattacharjee@bcrec.ac.in

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