

CIVILOHOLIC

Departmental E-Magazine
DEPARTMENT OF CIVIL ENGINEERING

SEP
2026

VOL
06



DR. B. C. ROY ENGINEERING COLLEGE

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DURGAPUR

Editor's Message



Dear Readers,

It is with great joy and pride that we present to you the sixth edition of our departmental E-magazine, CIVILOHOLIC. This platform has consistently aimed to reflect the innovative spirit and creative potential of 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 encourage them to explore beyond the conventional boundaries of academics. The dedication shown by our students, along with the guidance of experienced faculty and staff, has 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 from 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 and guidance of Dr. Anupam Kumar Biswas. I would also like to express my sincere gratitude to Sahabuddin Sekh and Udit Sarkar, both from the 4th year, who have helped immensely throughout the preparation of this edition. Their valuable advice, constant encouragement, creative inputs, and willingness to contribute at every stage have played an important role in shaping this magazine. Their dedication and enthusiasm have truly enriched the editorial process.

Special thanks go to Prof. (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 Prof. (Dr.) Sanjay S. Pawar (Principal, BCREC) and Prof. (Dr.) K. M. Hossain (Vice-Principal, BCREC), whose support has been vital to the successful completion of this edition.

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

Happy Reading!

SOUMYADEEP NAMHATA

Chief Editor, CIVILOHOLIC

3rd Year, Department of Civil Engineering

DR. B.C. ROY ENGINEERING COLLEGE, DURGAPUR

Faculty Coordinator's Message



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

It gives me immense pride and joy to present the sixth edition of our departmental e-Magazine, CIVILOHOLIC. Since its inception in 2021, this publication has been a vibrant platform for showcasing the innovation, technical expertise, and creativity of our students, faculty, and staff. With every edition, the magazine has grown in quality, depth, and impact, and I am confident that this volume will set new benchmarks of excellence.

This achievement is the result of the dedication and teamwork of our student editorial board, faculty members, and contributors. I extend my heartfelt appreciation to each one of them for their tireless efforts in bringing this edition to life.

Beyond academics, our department continues to enrich the student experience through cultural and professional initiatives. This year, events such as AGOMONI 2025, Teacher's Day 2025, and the Farewell Program for Final Year Students fostered unity, celebration, and a strong sense of belonging among our community.

On the industry collaboration front, a major milestone was the establishment of the Centre of Excellence for Sustainable Construction Materials by Ultratech Cement Ltd. within our department. This initiative will provide invaluable opportunities for industrial training, knowledge sharing, and hands-on exposure to cutting-edge practices for our students and faculty members.

Equally noteworthy is our remarkable placement record this year. More than half of our final-year students have secured positions in reputed organizations, with several receiving lucrative offers. Highlights include placements at Planet Spark (₹6.5 LPA), JSW Group (₹6 LPA), Skipper Limited (₹5.50 LPA), Megha Engineering and Infrastructures Ltd. (₹3 LPA), and Duttcon Consultant and Engineers Pvt. Ltd. (₹2.49 LPA). These successes reflect the hard work of our students, the consistent mentoring by our faculty, and the department's strong emphasis on industry-aligned training.

As we look ahead, our commitment remains steadfast: to nurture academic excellence, professional growth, and holistic development. We strive to create a dynamic ecosystem where creativity and technical competence flourish together.

I extend my best wishes to all readers and contributors of CIVILOHOLIC. May this edition continue to inspire innovation, collaboration, and excellence across the Civil Engineering fraternity.

DR. ANUPAM KUMAR BISWAS

**ASSISTANT PROFESSOR
CIVIL ENGINEERING DEPARTMENT
BCREC**



OVERVIEW

OF CIVIL ENGINEERING DEPARTMENT

To excel as a premier global center for civil engineering education, fostering creativity, innovation, discipline, and producing highly employable, ethically responsible professionals who drive societal progress and field advancements.



OVERVIEW

The Department of Civil Engineering was established in 2010, with its first batch graduating in 2014. The department has highly qualified faculty members and well-equipped laboratories for undergraduate studies. A dedicated project lab is also being established to provide students with hands-on project experience. The department has produced quality graduates working in Core Civil Engineering, Software Engineering, Government Services, and allied sectors. Students are encouraged to pursue higher studies through GATE, MBA, and overseas education. The department has an MoU with NHA and strong industry and government connections that provide internship and industrial training opportunities. Regular site and industrial visits are organized from the second year to provide practical exposure. Student chapters also encourage students to develop their technical, managerial, and organizational skills through various events. The department continuously strives to enhance education quality and provide better career and placement opportunities.



MISSION

- M1. To provide a great platform for learning by offering a variety of subject choices covering broad frontier areas of civil engineering.
- M2. To inculcate in students a commitment to ethical and sustainable engineering practices, social responsibility and foster leadership qualities.
- M3. To collaborate with industry and academia for achieving excellence in research, consultancy and entrepreneurship developments.
- M4. 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

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

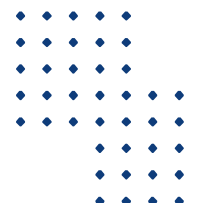
PEO 1: Graduates will be able to practice civil engineering in construction industry, public sector undertaking and Government sector or as an entrepreneur for successful professional career.

PEO 2: Graduates will be able to pursue higher education for professional development.

PEO 3: Graduates will be able to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.



**SCAN & SEE OUR
DEPARTMENTAL VIDEO**





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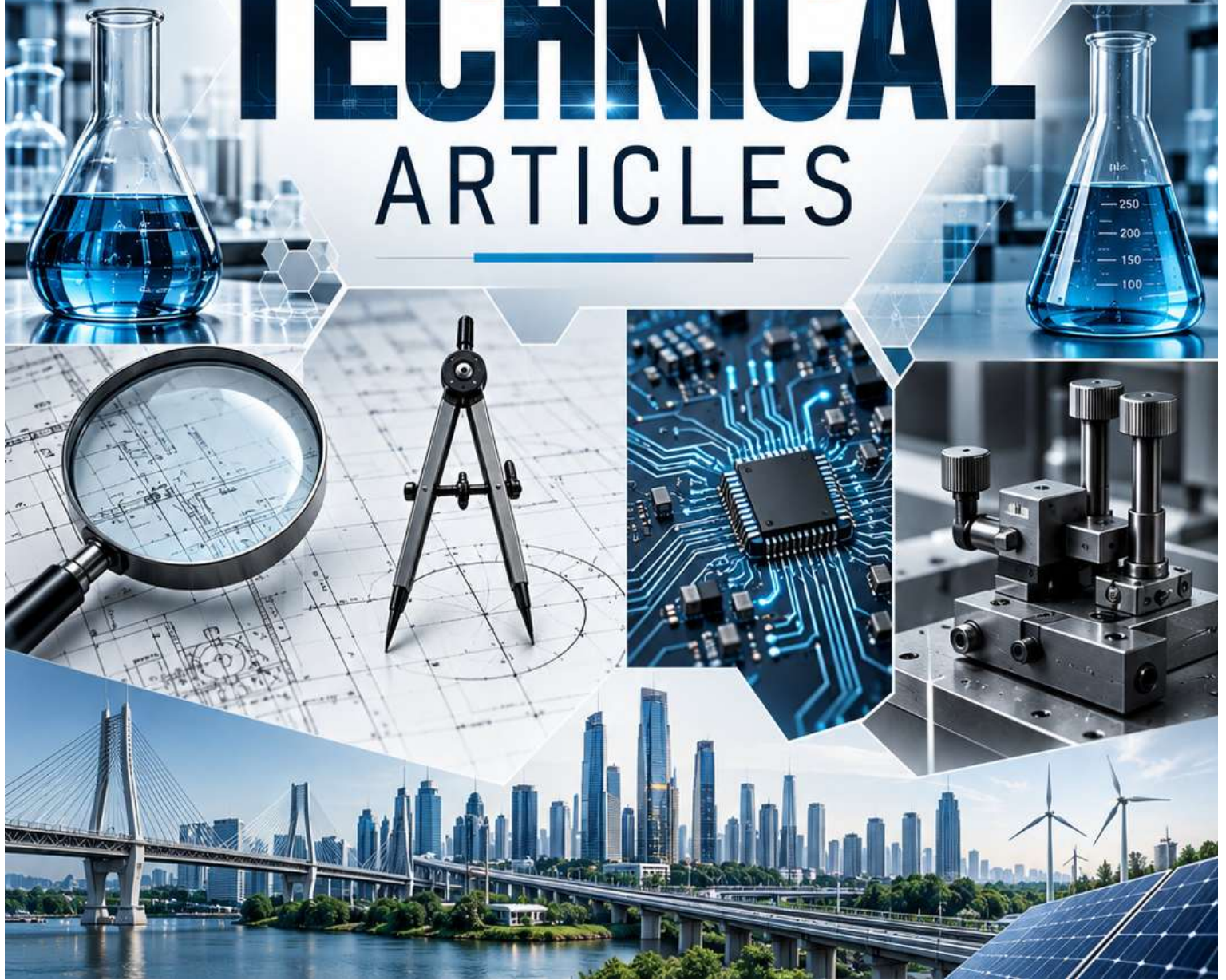
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TECHNICAL ARTICLES



Vernacular Architecture of India

Vernacular architecture in India reflects a thoughtful adaptation to diverse climates, local materials, and cultural practices across its states and regions. Vernacular architecture uses locally sourced materials like mud, bamboo, stone, and thatch to create climate-responsive homes. In India, it varies by bioclimatic zones—warm-humid, hot dry, cold, and moderate—influenced by rainfall, temperature, and terrain. These structures prioritize passive cooling, heating, and ventilation, minimizing energy use while aligning with socio-cultural needs.

North-East India (Assam, Meghalaya, Arunachal Pradesh) has "Assam-type" houses built for heavy rain and humidity. They sit on brick or wooden stilts to stay dry from floods. Steep roofs made of thatch, bamboo, or tin slope down with wide overhangs to block rain and shade the walls. Walls use bamboo mats between mud layers to keep heat out; surkhi plaster (lime, brick dust, jute) makes them strong. In cooler Meghalaya, mud mixed with cow dung and straw goes over bamboo frames. Homes face east west to catch winter sun and get good airflow, cutting AC use by 17-22%.

In the Himalayas (Himachal Pradesh, Uttarakhand), stone and wood rule because of earthquakes and freezing winters. Himachal's kath-kuni style stacks cut granite stones without mortar, locked with deodar wood beams for strength; thick walls keep warmth in. Roofs use layered slate or shingles, sloped sharply for snow. Ladakh's bhoti homes have mud-brick walls on stone bases and flat roofs of poplar wood, birch bark, and mud to hold heat. Small south-facing windows let in sun; kitchen fires warm thick walls through chimneys, staying cozy at -20°C. Tight layouts trap heat well.



Stone houses in the Himalayas



Kerala Architecture Wood, laterite, and clay tiles

Rajasthan's dry desert heat needs designs that push away warmth. Havelis use sandstone and lime; jaali screens (holey stone grids) let in breeze and light but block sun. Thick mud-brick or carved stone walls delay heat entry; courtyards with stepwells pull up cool air through evaporation. Jaisalmer forts have wind towers to catch breezes; flat roofs cool at night. Lime plaster bounces heat; walls are white by day and darker at night. These keep rooms 30-40% cooler without fans or AC.



Mud houses in Rajasthan



Bamboo houses in Southeast Asia

Rajasthan's dry desert heat needs designs that push away warmth. Havelis use sandstone and lime; jaali screens (holey stone grids) let in breeze and light but block sun. Thick mud-brick or carved stone walls delay heat entry; courtyards with stepwells pull up cool air through evaporation. Jaisalmer forts have wind towers to catch breezes; flat roofs cool at night. Lime plaster bounces heat; walls are white by day and darker at night. These keep rooms 30-40% cooler without fans or AC.

Kerala's Western Ghats face humid coasts and monsoons, so nalukettu homes have sloping terracotta tile or palm-thatch roofs over wood frames on porous laterite stonewalls that breathe. Open courtyards cool four room blocks; verandas with carved posts shield from rain. Teak or rosewood fights bugs; sloped floors drain water. Some homes add ponds to tame moisture, with tall ceilings (3.5-4m) and slatted windows for breeze. They rely on natural cooling 76% of the time.



Assam Bamboo Houses



Prashar Temple, Kath-Kuni architecture.

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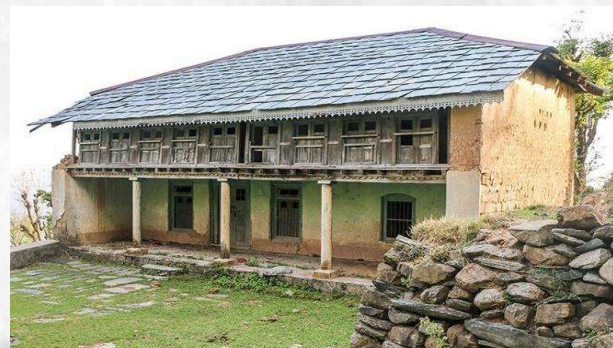
In Bengal and Odisha deltas, bamboo and mud make atchala roofs (four slopes) on raised bases to fight cyclones and floods in the Sundarbans. Stitched kantha thatch warms and insulates; end windows release hot air. Odisha huts have dome thatch (konrak) or flat earthen roofs (pisi), kota stone floors, sal wood poles; layered pidha roofs shade sides. Mud walls coated in rice paste fight damp; char-chala homes stretch east-west.

Gujarat's Kutch bhunga are round mud huts that dodge whirlwinds; walls thicken upward for steadiness, topped by cone thatch. Maharashtra's Deccan wadas use black basalt and lime with a central hall and tulsi plant courtyard for cooling through jali screens. Konkan pol houses on the humid coast rise on laterite bases with tile hips and verandas.

Central India's Madhya Pradesh Gond tribal homes mix sal wood, bamboo, terracotta tiles; dung-shined mud walls hold heat. Chhattisgarh's simple kachcha huts top sal posts with dhussi grass roofs.



Stilt Houses at Flooding zone



Kangra Architecture Himachal Pradesh

India's 28 states highlight more than 20 unique vernacular architecture styles, all shaped by local climates, materials, and traditions. These designs offer 60-80% energy savings through smart passive features like natural ventilation and shading. Today, we're blending them into modern builds for instance, using bamboo in north-east seismic designs for eco-friendly, low-carbon homes. While urbanization poses challenges by fading traditional skills, exciting revivals through eco-tourism are keeping these treasures alive and thriving.



Pranay Roy

Assistant Professor , Civil Engineering
BCREC

Chenab Bridge: A Triumph of Modern Civil Engineering

Introduction

The Chenab Bridge is regarded as one of the scenic engineering achievements found in India. It spans over the Chenab River in Jammu and Kashmir as a subdivision of the Udhampur–Srinagar–Baramulla Rail Link (USBRL) project. The bridge has enabled better railway connectivity between Kashmir Valley and the rest of the country. The Chenab Bridge is a steel arch railway bridge whose entire length is approximately 1,315 metres. The height of its railway deck is about 359 metres from the river below, which makes it the highest railway arch bridge in the world. The giant steel arch forms the primary design structure of the bridge and bears the railway load across the gorge effectively



Construction Challenges



Building the bridge was really difficult due to the steep mountains, the deep valley below, the severe winds, the possibility of earthquakes as well as complicated geology. Civil engineers had to study precisely the rocks and the terrain surrounding the location of the bridge before beginning the construction. Since the bridge is situated in a mountainous area, standard building techniques could not be effectively applied. For this reason, modern construction methods and equipment were utilised in the construction process, allowing to move, lift and fit into place the huge steel elements of the bridge.

Engineering and Safety Features

The material used in the construction of the bridge includes reinforced concrete and high-strength steel, providing the required strength, durability, and long-term performance. The bridge has been designed to withstand challenging environmental conditions, including strong winds, heavy weather conditions, and earthquakes. Special attention has been given to the structural performance of the large arch, as well as the stability and strength of its supporting elements.

The bridge also incorporates modern safety and structural health monitoring systems that enable engineers to regularly assess its condition and identify potential problems at an early stage. These systems help in monitoring structural behaviour and ensuring timely maintenance whenever required.

Regular inspections, maintenance, and continuous monitoring are essential for maintaining the bridge's safety and serviceability. Together, these engineering and safety features ensure that the bridge can withstand demanding conditions while providing safe, reliable, and long-lasting transportation infrastructure.

Importance of Chenab Bridge

Beyond being merely a bridge for trains, the Chenab Bridge plays a crucial role in connecting Kashmir Valley and promoting tourism through its engineering marvel, thus helping to bring trade and advancement to the region.

It is a showcase of engineering prowess in overcoming tough geographical challenges in infrastructure modifications; the Chenab Bridge serves as a great case study for students of civil engineering since it demonstrates the achievements of engineering in aspects such as structural, geotechnical, transportation, and construction engineering.

Conclusion

Beyond being merely a bridge for trains, the Chenab Bridge plays a crucial role in connecting Kashmir Valley and promoting tourism through its engineering marvel, thus helping to bring trade and advancement to the region.

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Ankan Tewary

3rd Year , Civil Engineering Department

Skills For Civil Engineering Graduates

Technical projects, internships, and communication skills help civil engineering graduates shine in campus placements. Recruiters from construction companies and consultancies value real-world skills more than just marks. Campus hiring includes tests, group talks, technical questions, and HR chats. These steps check practical skills. India produces over 1.5 million engineers each year, but only 40-50% get campus jobs. Hands-on prep makes a big difference.

Projects let students use class lessons on real problems. This makes them strong for placements. In interviews, students with industry relevant project, with prototype and publication get picked first. Projects teach tools and softwares, enhancing students reporting skills, presentation skills and graphical applications. These are must-haves for design or site jobs.

Internships connect books to work sites. They greatly lift placement odds for civil students. A short 6-8 week stay at metro or bridge sites teaches building methods, checks, and safety. Students become ready to start work. MNCs turn good interns into job offers early. Interns learn real world problem and solving skills bridging the textual concepts to real world problem applications.

Good talking skills set apart smart tech students. Civil engineers need to explain ideas in reports or meetings. This gets tested in HR and group discussion rounds. Clear speaking helps share project steps, like matching models to tests. Writing shines in resumes. Recruiters check listening in fake deals. Teamwork runs big projects like trains. Bad talk causes 30% rejections after tech rounds. Practice in groups builds it. Good talkers get 10-15% more pay as leaders. In 2026, skilled students are having easier career prospects. India's ambitious infrastructure growth demands industry-ready civil engineering graduates.



Pranay Roy

Assistant Professor , Civil Engineering
BCREC

FUTURE OF SMART CITIES IN INDIA

Introduction

India is experiencing rapid urbanization, with a growing population moving to cities. To manage this expansion, the Government of India launched the “Smart Cities Mission” in 2015 to develop sustainable and technology-driven urban centers. Smart cities use digital technologies to improve infrastructure, governance, and the overall quality of life.

Current Scenario

Significant progress has been made under the mission, including the development of smart roads, intelligent traffic systems, and digital public services. Integrated Command and Control Centers (ICCCs) have enhanced urban management. However, development remains uneven, and many cities are still in the implementation stage.



Future Technologies



The future of smart cities in India will be driven by advanced technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), 5G networks, and Big Data analytics. These technologies will enable efficient resource management, real-time monitoring, and better decision-making.

Benefits

Smart cities will improve living standards by providing better healthcare, transportation, and public safety. They promote sustainability through efficient energy use and waste management. Additionally, they will boost economic growth by attracting investments and creating job opportunities.

Challenges

Despite the advantages, challenges remain. These include high costs, unequal development, digital divide, governance issues, and cybersecurity risks. Addressing these challenges is essential for successful implementation.

Conclusion

The future of smart cities in India is promising but requires inclusive planning, strong governance, and sustainable investment. With proper strategies, smart cities can transform urban living and contribute significantly to the country's economic and social development.



Souvik Chowdhury

3rd Year , Civil Engineering Department

Sustainable Materials: The Foundation of Green Buildings

Introduction

The construction industry plays a vital role in economic growth and infrastructure development. However, it is also one of the largest consumers of natural resources and a major contributor to environmental pollution. Traditional construction materials such as cement, steel, and bricks require large amounts of energy during manufacturing and generate significant carbon emissions. According to global environmental studies, the building and construction sector contributes nearly 40% of global carbon dioxide emissions when both construction and building operations are considered.

As the world moves toward sustainable development, the need for eco-friendly and energy-efficient building materials has become increasingly important. Sustainable building materials help reduce environmental impact, conserve natural resources, minimize waste, and improve energy efficiency. These materials are designed to support long-term environmental balance while maintaining structural strength, durability, and functionality.

Leading Sustainable Building Materials

✓ Bamboo

Bamboo is one of the fastest-growing renewable construction materials in the world. It has excellent tensile strength and flexibility, making it suitable for structural applications, flooring, roofing, and scaffolding. Bamboo can grow to maturity within three to five years, unlike traditional timber that may take decades.

Key Features:

- Renewable and biodegradable
- Lightweight yet durable
- High strength-to-weight ratio
- Earthquake-resistant properties



Applications:

Bamboo is commonly used in eco-friendly housing, bridges, resorts, and temporary construction structures.

✓ Cross-Laminated Timber (CLT)

Cross-Laminated Timber is an engineered wood product created by layering timber panels perpendicular to each other. CLT is considered a sustainable alternative to concrete and steel in certain construction applications.

Key Features:

- Renewable construction material
- Good thermal insulation
- Faster construction process
- Stores carbon during its lifespan

Applications:

Used in residential buildings, offices, schools, and sustainable urban projects.

✓ Hempcrete

Hempcrete is a lightweight bio-composite material made from hemp fibers, lime, and water. It provides excellent insulation and helps regulate indoor temperature naturally.

Key Features:

- Carbon-negative material
- Fire-resistant and pest-resistant
- Lightweight and breathable
- Enhances indoor air quality



Applications:

Used in green homes, wall insulation systems, and sustainable architecture.

Applications of Sustainable Building Materials

➤ Green Buildings

Sustainable materials are extensively used in green-certified buildings to improve energy efficiency and reduce environmental impact. High-performance insulation materials reduce energy consumption for heating and cooling systems.

➤ Smart Urban Development

Modern cities are focusing on sustainable infrastructure to reduce pollution and conserve resources. Eco-friendly materials contribute to cleaner urban environments and improved quality of life.

➤ Waste Reduction in Construction

Construction and demolition activities generate large amounts of waste. Recycled materials such as reclaimed wood, recycled concrete, and recycled steel help minimize landfill waste and promote circular construction practices.

➤ Energy-Efficient Infrastructure

Sustainable materials improve thermal insulation and reduce electricity usage in buildings. Reflective roofing materials and energy-efficient wall systems help maintain indoor temperatures naturally.

Applications of Sustainable Building Materials

❖ Reduced Environmental Impact

Eco-friendly building materials reduce greenhouse gas emissions, conserve natural resources, and minimize pollution during production and construction activities.

❖ Improved Energy Efficiency

Materials with high insulation properties reduce energy consumption in buildings by lowering the need for artificial heating and cooling.

❖ Enhanced Durability

Many sustainable materials are highly durable and resistant to weathering, corrosion, and environmental damage. This reduces maintenance costs and increases the lifespan of buildings.

❖ Healthier Indoor Environment

Non-toxic and low-emission materials improve indoor air quality and create healthier living and working conditions.

❖ Long-Term Cost Savings

Although sustainable materials may have higher initial costs, they reduce operational expenses, maintenance costs, and energy bills over the lifecycle of the building.

Challenges and Considerations

✓ High Initial Investment

Many sustainable building materials and technologies require higher upfront investment compared to traditional construction methods. This can discourage small construction companies from adopting green practices.

✓ Limited Awareness and Availability

In many developing regions, awareness about sustainable materials remains limited. Availability of eco-friendly materials and skilled professionals can also be a challenge.

✓ Technical and Regulatory Issues

Some innovative materials require additional testing and approval before widespread use. Building codes and regulations may not always support newer sustainable technologies.

✓ Performance Concerns

Certain sustainable materials may face concerns regarding durability, structural performance, and long-term reliability under extreme environmental conditions.

Future Outlook

The future of sustainable building materials is highly promising due to increasing environmental awareness, technological advancements, and government initiatives promoting green construction. Researchers are developing advanced materials such as self-healing concrete, carbon-absorbing bricks, transparent wood, and 3D-printed eco-friendly structures.

The integration of smart technologies with sustainable materials will further improve energy efficiency and building performance. As production costs decrease and awareness grows, sustainable materials are expected to become a standard part of modern construction practices.

Governments, architects, engineers, and construction companies must work together to promote environmentally responsible infrastructure development. Sustainable construction is not only important for environmental protection but also essential for ensuring long-term economic and social well-being.

Conclusion

Sustainable building materials are becoming a cornerstone of modern construction by balancing development with environmental responsibility. Their ability to reduce carbon emissions, conserve natural resources, improve energy efficiency, and create healthier environments makes them essential for the future of the construction industry.

The Architecture, Engineering, and Construction (AEC) sector must continue embracing green innovations to overcome environmental challenges and create resilient infrastructure. As sustainable technologies continue to evolve, eco-friendly materials will become more affordable, accessible, and widely adopted across the world.

A sustainable future depends on responsible construction practices today. By choosing environmentally friendly materials and adopting green construction methods, society can move toward cleaner, smarter, and more efficient infrastructure for future generations.

Suggested YouTube Videos

1. Sustainable Construction Materials - <https://www.youtube.com/watch?v=yuPf2i2wPgU>
2. Sustainable Building Material - <https://www.youtube.com/watch?v=oYUx18xLNlc>
3. TED Talk – Building with Mud and Waste -
https://www.youtube.com/results?search_query=vinu+daniel+ted+talk
4. Eco-Friendly Building Materials Explained -
https://www.youtube.com/results?search_query=eco+friendly+building+materials
5. Future Sustainable Construction Technologies
https://www.youtube.com/results?search_query=future+building+materials



Surabhi Sengupta

3rd Year , Civil Engineering Department

Recent Applications of 3D Printing in Indian Civil Engineering

Recent Developments in India

3D concrete printing has become a promising technology for faster, economical, and automated construction in India. Its applications have expanded from experimental projects to houses, defence structures, railway facilities, and public infrastructure, showing the gradual shift towards automated construction.

One important example is the 3D Printed Rural House constructed under DRDO and executed by CSIR-CBRI, Roorkee. The project aimed to demonstrate rapid and cost-effective construction, especially in rural areas where labour availability can be a challenge.



A 3D-printed villa was also constructed in Pune by Tvasta in collaboration with Godrej Properties, demonstrating robotic concrete printing for residential construction. The technology uses predefined digital designs, reduces the need for conventional formwork, and allows complex shapes to be constructed easily.

3D printing has also been used for defence infrastructure at Chiloda, Gujarat, where 3D-printed buildings demonstrate the potential of automated on-site construction. Public infrastructure applications include 3D-printed bus stops in cities such as Surat, Mumbai, and Chennai, along with a 3D-printed gang room at Parvatipuram Railway Station.

Engineering Benefits and Challenges

Advantages and challenges for Civil Engineers The major advantages of this process for the civil engineer would include faster construction times, reduction in formworks, more control over the consumption of materials, elimination of wastage of materials and the scope to give custom shapes. But, challenges such as the positioning of reinforcement, bonding between the printed layers, the durability of the elements and issues relating to quality assurance and integration with traditional reinforced cement concrete works exist.

Future Scope

Printable-concrete printable-concrete with advancements in printable concrete technologies, reinforcing mechanisms, robotics solutions and design codes printable concrete could see widespread use in affordable housing, defense establishments, rail infrastructure, as well as rapid construction housing needs of various structures in the country. Learning such technology will be of paramount importance in the coming days and for those intending to build a career in Civil Engineering, where more and more constructions are opting for digitization and robotics technologies for execution of construction processes and plans.



Subhojit Mondal

3rd Year , Civil Engineering Department

Swapnesh Sanyal

3rd Year, Civil Engineering Department



Reclaiming the Coast

Inside the Mumbai Coastal Road — India's Most Ambitious Urban Sea Engineering Project

Seventy metres below Malabar Hill and twenty metres beneath the floor of the Arabian Sea, India's largest tunnel boring machine spent over a year chewing through basalt rock to carve out a road nobody could see from the surface. Above it, more than three million tonnes of rock were dropped into the sea to build a wall that would hold back the tide and create entirely new land for Mumbai. Together, the two efforts — one hidden underground, one built out into the ocean — form the Mumbai Coastal Road Project (MCRP), one of the largest and most technically demanding civil engineering undertakings in India's history.

A Problem Six Decades in the Making

Mumbai's western suburbs and its southern business district have always been connected by roads that were never built for the city's traffic. The idea of a coastal route linking Marine Drive to the northern suburbs dates back to a 1962 transportation study, but for decades the project remained a proposal on paper — blocked by cost, environmental concerns, and the sheer difficulty of building along a live, ecologically sensitive coastline. It finally broke ground in the mid-2010s under the Brihanmumbai Municipal Corporation (BMC), which split the project into multiple contract packages so that reclamation, tunnelling, and bridge work could all proceed at once.

The first phase — a 10.58 km stretch from Princess Street to the Worli end of the Bandra-Worli Sea Link — opened to traffic in March 2024. A second, larger phase extending the corridor further north to Dahisar and Bhayandar is now under construction, taking the project's eventual scope well beyond 40 km of coastline.

Building Land Where the Sea Used to Be

A large share of the coastal road doesn't sit on existing ground at all — it sits on land that didn't exist before construction began. Engineers reclaimed roughly 111 hectares from the sea, using a rock-and-sand seawall to hold the reclaimed area in place against tidal action and monsoon swells. Sourcing that much material was itself an engineering exercise: project teams visited over a hundred quarries to find rock suitable for the seawall and causeway, since individual boulders weighing up to four tonnes had to interlock precisely enough to survive decades of wave impact. Around 70% of the reclaimed land has been set aside for public promenades, gardens, and open space rather than road surface — a deliberate design choice to give the project a civic identity beyond just traffic capacity.

Tunnelling Under a Hill and a Sea

The project's signature engineering feat is its twin tunnel beneath Malabar Hill, connecting Priyadarshini Park to Marine Drive near Girgaon Chowpatty. At 12.19 m diameter, it was bored using "Mawla," the largest tunnel-boring machine ever deployed in India, cutting a passage roughly 20 m below the seabed and about 70 m below the hill itself.

The hill itself. Each tunnel carries three lanes of traffic, with one lane in each tube reserved for emergency and public transport use. Because the alignment runs directly under a dense, historic residential neighbourhood as well as open sea, engineers had to continuously monitor ground settlement and vibration as the machine advanced, to avoid disturbing structures on the surface that had no idea a tunnel was passing beneath their foundations.

The coastal road will save 70% of travel time and 30% of fuel between South Mumbai and the western suburbs.— BMC project officials

Parameter	Details
Phase 1 length (opened Mar 2024)	10.58 km, Princess Street to Worli
Twin tunnel length	2.07 km each, under Malabar Hill
Tunnel diameter	12.19 m — India's largest TBM-bored tunnel
Tunnel depth	~20 m below seabed, ~70 m below Malabar Hill
Land reclaimed	≈111 hectares (≈70% set aside as open/public space)
Seawall material	≈3 million tonnes of rock, sourced from 100+ quarries
Northern extension (Versova–Bhayandar)	26.3 km, ≈ ₹22,000 crore
Projected full completion	2026–2028 (phased)
Executing agency	Brihanmumbai Municipal Corporation (BMC/MCGM)

Engineering Against the Coastline, Not Over It

Unlike a conventional urban expressway, almost every kilometre of the Mumbai Coastal Road had to be designed around a constraint a highway engineer rarely faces: a living, tidal, ecologically protected coast. Sections of the route pass through Coastal Regulation Zone (CRZ) areas, mangrove belts, and creeks, which meant construction sequencing, dredging, and reclamation all had to satisfy environmental clearances alongside structural ones — the project only received its final mangrove-zone working permit in January 2026, years after major construction had already begun elsewhere on non-sensitive stretches. The road also includes a dedicated bus rapid transit (BRT) lane on each carriageway, reflecting a design intent to move people, not just vehicles, and multiple interchanges at Worli and Haji Ali that had to be threaded between existing flyovers, sea link piers, and reclaimed embankments without disrupting traffic already using the completed sections.

For a civil engineering student, MCRP is a rare single project that combines large-diameter tunnel boring, marine reclamation and seawall design, environmental-clearance-constrained construction sequencing, and urban interchange geometry — all within one dense, historic coastline. It's also a useful lesson in project management at scale: BMC's decision to split the corridor into parallel construction packages, each with its own contractor and consultant, let reclamation, tunnelling, and bridgework advance simultaneously rather than sequentially, cutting years off what a single continuous contract would have taken.

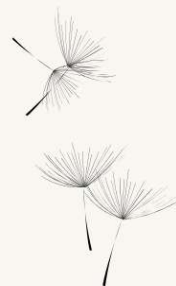
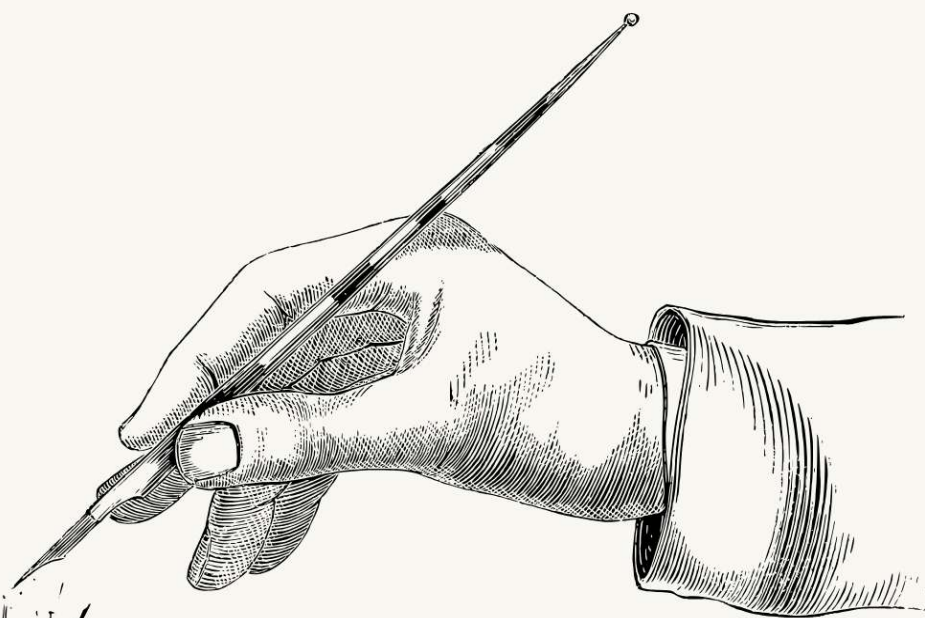


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NON TECHNICAL ARTICLE





প্রথম বর্ষ



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'প্রথম বর্ষ' নামক বইয়ের ৩৬৫ টি পৃষ্ঠা যে কখন মনের অজান্তে, সময়ের প্রবাহমানতায় পড়ে ফেললাম তার চেতনাহীনতার কারণ তার কালাঙ্ককারতার বেষ্টনীতে আবদ্ধ হওয়া। এই বইতে যেটা খুঁজে পেয়েছি সেটাকে 'বিবিধের মাঝে দেখ মিলন মহান' - উক্তিটির সাথে তুলনা করলে বোধহয় এই বাক্যের তাৎপর্য সম্পূর্ণ আঙ্গিকে নিজের লেখন শৈলীর ডানার মাধ্যমে মেলে ধরতে সক্ষম হব এবং তা চিন্তন প্রণালীর পানে এক বাণ নিক্ষেপনের সমান হবে। স্নেহ, ভালোবাসা, কদর, করুণা, সম্মান থেকে শুরু করে ভয়, রাগ, দুঃখ, ক্রন্দন সহ আরো বহুবিধ মৌলিক এবং যৌগিক সমন্বয়ের অনুভব এই পৃষ্ঠা গুচ্ছের মধ্যে এক আলাদা মশলা হিসেবে কাজ করেছে। এই বইতে রয়েছে কারোর নায়ক থেকে ভিলেন হওয়া এবং ভিলেন থেকে নায়ক হওয়ার মতো রোমাঞ্চ ও রহস্যের ফয়েলে জড়ানো অবিশ্বাস্য শব্দগুচ্ছ। গোয়েন্দাদের গোয়েন্দা শার্লক হোমস এর চরিত্রের কিছু বৈশিষ্ট্যাবলীও এতে কোনোএক পৃষ্ঠার অধিকারী। এতে লিপিবদ্ধ করা রয়েছে জীবনের এমনকি বিশিষ্ট কয়েকটি দিনের সেরা মুহূর্ত যেগুলো প্রেম, রাগ, অভিমান, মজা- আড্ডায় অলংকৃত।।

স্নাতক স্তরের পঠন-পাঠনে এক অনন্য বৈচিত্র্য বিরাজ করে, যা বাস্তব জীবনের সঙ্গে প্রায় সমান্তরালভাবে চলতে থাকে—এ কথা নির্দ্বিধায় বলা যায়। কলেজের অধ্যক্ষ, উপাধ্যক্ষ, অধ্যাপক, অধিকর্তা, রজত ও স্বর্ণ জয়ন্তী পূর্তি পালনকারী গুণীজনদের সমাবেশ যেন এক আলাদা আবেশ তৈরি করে, যেটি দুলাল মিত্র অডিটোরিয়ামের বাগ্মিতা-বোঝাই পরিবেশে আরও প্রবল হয়ে ওঠে। তবে আমাদের বিশেষত্ব এইখানেই—এই গুণীজনদের মধ্যেই অনেকের জন্য আমরা সমালোচক পদবি তে উন্নীত হওয়া থেকে আমরা কিন্তু বিরত থাকিনি!

নিজেদের কে বেঁধে ফেলি মাঝে মাঝে অনেক মায়াময় অভিজ্ঞতার বন্ধনে এবং তাছেড়ে বেরিয়ে আসা যেন ভোকাট্টা ঘুড়ির পিছনে ধাওয়া করা।

পৃষ্ঠা উল্টানোর বেগ যতই ত্বরান্বিত হয়েছে ততই অ্যাডভেন্টারাস হয়ে উঠেছে এই বাস্তব কাহিনী। শ্রেণী কক্ষে প্রফেসর দের ভাষণ শুনতে শুনতে যখন শরীর চাইতো একটু বিশ্রামের অবসর কিন্তু তখন প্রতিবর্ত ক্রিয়া র অ্যালার্ম জানিয়ে দিত 'আগমনী বিপদ ঘন্টা' (এখানে এই বিপদ ঘন্টা হোম টাস্ক এর সাথে তুলনীয়)।।

পৃষ্ঠা সংখ্যা যখন কয়েক কেশগুচ্ছের এর কাছাকাছি চলে আসে তখন একটা সেরার সেরা বই শেষ করার কথা মনে আসতেই উদ্বেলতার আগমন ঘটে।

শেষ পৃষ্ঠার ধারে এসে মনে হলো, এই 'প্রথম বর্ষ' নামক অধ্যায়টি শুধুই একবছরের সময় নয়, ছিল এক অনন্য অনুভবের সংকলন। প্রতিটি মুহূর্ত, প্রতিটি অভিজ্ঞতা যেন আমার ব্যক্তিত্ব গঠনের অনিবার্য অংশ হয়ে গেছে। আগামী দিনগুলোতে হয়তো আবারও নতুন অধ্যায় আসবে, নতুন পৃষ্ঠা খুলবে, কিন্তু এই ৩৬৫টি পৃষ্ঠার গল্প আমার মনোজগতের একটি স্থায়ী অধ্যায় হয়ে থাকবে — বারবার ফিরে পড়ার মতো

প্রিয় কোনো উপন্যাসের মতো।।

এই ৩৬৫টি পৃষ্ঠা যেন শুধুই ঘটনা প্রবাহ নয়, ছিল আত্মজাগরণ ও অভিজ্ঞতার এক অনির্বচনীয় অনবদ্যতা; যেখানে মিশে আছে আবেগতড়িত স্মৃতি, অনুরণিত সম্পর্কের রসায়ন, আর চিন্তনশীল মনের পরিপূর্ণ অভিজ্ঞান।। "



ডলার ও রুপির মেলবন্ধন



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ভারতবর্ষ স্বাধীন হবার সময়কালে রুপির গুরুত্ব তার আত্মীয়স্বজন, বন্ধুবান্ধবদের কাছে উপহাস্যকর ছিল না। যদিও আপনারা ভাববেন যে, আমি কেন এই রুপিকেই বেছে নিয়েছি, কারণ আমার দৈনন্দিন জীবন চলে এই রুপিকেই ব্যবহার করে। তাই আমার কাছে এর গুরুত্ব 'যার পর নাই'। কিন্তু অর্থনীতির আলোচনায় যে বিষয়টি মাথাচাড়া দিয়ে ওঠে তা হলো এই "রুপি", কিন্তু এর নিজের দুনিয়ায় এর বস হলো মার্কিন ডলার। কিন্তু কেন এই মার্কিন ডলার? স্যার আব্রাহাম লিঙ্কনের শাসন থেকে শুরু করে বর্তমানে "দ্য গ্রেট", "দ্য সেভিয়ার", এবং নানাবিধ উপাধিতে স্ববিভূষিত করা ডোনাল্ড ট্রাম্পের; সৌরজগতের একটি উপবৃত্তাকার কাল্পনিক বাসায় থাকা সন্তান 'পৃথিবী' নামক একটি গোলায় অতিরিক্ত দাপাদাপি এবং ডলারের-ও মুখে হাসি। পার্থক্য তো স্পষ্টতই নিদর্শনীয়। সমগ্র দেশের অর্থনীতির কিছু বছরের মধ্যেই ওলটপালট কিন্তু ভারতীয় অর্থনীতির মুখ্যত অন্যতম মুখ্যপাত্র 'রুপি'র শারীরিক দুর্বলতা— দাল মে কুছ কালা হ্যায় ! একটা সম্পর্ক সুতোর মতো। দুপ্রান্তের দুজন যদি সুতোকে সম বলপ্রয়োগে টেনে ধরে রাখে তাহলে সেটিকে সফল সম্পর্ক বলা চলে। কিন্তু যদি খুব জোরে সুতো টানা হয় দুই প্রান্ত দিয়ে তাহলে ছিঁড়ে যায়। আবার হালকা করে ধরলে তা আলাগা হয়ে যায়, এই নীতি সার্বিক এবং নিখিল বিশ্বজনীন এবং অর্থনীতির ওপরও এর গুরুত্ব অপরিসীম।

এই মেলবন্ধনের আলোকপাত করতে গিয়ে প্রসঙ্গ ওঠে যুদ্ধের। বর্তমান দুনিয়ায় প্রযুক্তি, কৃত্রিম বুদ্ধিমত্তা এবং অত্যাধুনিক আগ্নেয়াস্ত্র যে এই যুদ্ধে ঘৃতাছতি দিয়েছে। এই যুদ্ধ শুধুমাত্র আগ্নেয়াস্ত্র-র যুদ্ধ নয়, নয় শুধু মিসাইলের ছোঁড়া-ছুঁড়ি বা গোলাগুলির আদানপ্রদান। এই যুদ্ধ কয়েক ফালি বা কয়েক বিঘের জমির বিনিময়ে সারা বিশ্ব ব্রহ্মাণ্ডের ওপর স্বয়ং রাজত্ব কায়ম করার লক্ষে কিছু বিলিয়ন ডলারের ভশরূপে পরিবর্তন - 'টাকা মাটি, মাটি টাকা' (কবিগুরু রবীন্দ্রনাথ ঠাকুরের 'দুই বিঘা জমি' থেকে উদ্ধৃত)।

রাজনীতি নিজেই একটা দুর্দান্ত কলা শিল্প। নামেই রাজ-নীতি অর্থাৎ রাজকীয় নীতি। এর ক্যারিশমাই আলাদা। আমরা অতীতের পাতায় পেয়েছি মহান রাজনীতিবিদদের। কিন্তু এই রাজকীয় নীতির মাধ্যমে যদি মানবজাতির কয়েক অনুচর অপব্যবহার করে তাহলে তা খুব ই নিন্দনীয়।

যতই শৈল্পিক মন অনুরণিত হোক না কেন এই অর্থপূর্ণ বাক্যাংশ বৃথা। জুদা এবং রাজনীতি একের পরিপূরক।

এই যুদ্ধের ফলে বিনিয়োগকারীরা নিরাপদ মুদ্রা— ডলারে টাকা রাখে ফলে রুপির চাহিদা কমে যায়। রুপির মূল্য কমে যায়। এবং প্রায় স্বাধীনতার দশ বছরের মধ্যে যার রাশি রাশি সংখ্যার সৌন্দর্য তুঙ্গে ছিল কিন্তু এখন তা মলিন থেকে মলিনতর।

এই প্রবন্ধ রচনাকালে মম মানসপটে রসবোধের আগমন ঘটায় একটি পরোক্ষ উদ্ধৃতির সূচনা— "বর্তমানে ভারতীয় মন্ত্রকালয়ের জনৈক বলেছেন: "Rupee is not sliding, Dollar is strengthening."

হতে পারে ওনার কাছে এই কথার তাৎপর্য ভারতীয় অর্থনীতির গভীর শিকড় পর্যন্ত লুকায়িত আছে কিন্তু আমার কাছে এটা একটা ভাঁড়ামোর উপকরণ। যখন আপনার সবচেয়ে শক্তিশালী বন্ধুর সম্পর্কে ভাঙন ধরবে তখন আপনার গুরুত্ব অন্যদের কাছেও হ্রাস পাবে। শুনতে অবাক লাগে যেখানে প্রাচীন বিশ্বে পূর্বে প্রবাদপ্রতিমতা ছিল গ্রিসের, তারপরে ব্রিটিশরা (যে ও কালে ভারতীয় উপমহাদেশ ব্রিটিশদের অন্যতম প্রধান উপনিবেশ ছিল), বর্তমানে ইউনাইটেড স্টেটস অফ আমেরিকা।

চিন্তা নেই গনগণ এই ইউ.এস এর ও প্রতিপত্তি কমবে। চাকা কখন স্থির থাকে না। সে ক্রমাগত ঘুরতে চলে বেহতর ভাগ্যের সন্ধানে। তা অদৃশ্যও ঠেকাতে পারবে না। এই জগত ব্রহ্মাণ্ড-এর এটাই নিয়ম। রাজা বদলায় , ভাবধারা বদলায় কিন্তু পিপীলিকার দুর্গতি কমে না। তা ধ্রুবক। জলছক্কের ন্যায় যে সিস্টেম টা পাল্টানো দুরূহ।

সাম্রাজ্যবাদের প্রতিটা আঙ্গি আঙ্গি নিপুণতায় গেঁথে রয়েছে এই অর্থনীতি র রহস্য ও প্রাসঙ্গিকতা।

এই গনতন্ত্রের একটা ছোট্ট অংশ হিসেবে ভাবধারার পরিবর্তনের প্রভাব আমরা কোনোদিন ই বুঝতে পারব না। আর এই ভাবধারার পরিবর্তন এর ফলে বিষয়-সম্পত্তির অংশিদারির শতাংশ গত ভাবে পরিবর্তন-রুপির মূল্যের ও পরিবর্তন।

ডলার ও রুপির মেলবন্ধন এর স্বাদ কবে যে ঠিক হবে কে জানে ?

আমরা ভারতবাসীরা এখন- ‘আশায় মরে চাষা’ অবস্থা। সবার মূলে ভাবধারা এবং মতাদর্শ।

এই ভাবধারা এবং মতাদর্শই হল আমাদের মধ্যাহ্ন ভোজন বা নৈশভোজন বা প্রাতরাশ এর গুণমান কীরকম হবে। রামকৃষ্ণদেব বলেছেন “টাকা মাটি, মাটি টাকা”। যতটা মাটি র ওপর কবিত্ত কায়েম করতে পারবে রাষ্ট্রনেতারা

আমরা দেখে এসেছি বিশ্বযুদ্ধের প্রকোপের ফলে কিভাবে ‘Currency’ -র গুরুত্ব কমেছে বা বেড়েছে ভূ-রাজনৈতিক মহলে পারদ বেড়ে যাওয়ায়।

এই রাজনৈতিক মতাদর্শ আমাদের কে তিনটি প্রশ্নের উত্তর দেই---

১. ক্ষমতার পিরামিড মানচিত্র
২. সম্পদের বন্টনের শিলান্যাস
৩. রাষ্ট্রের বা দেশের ভূমিকা

রাজনৈতিক মতাদর্শ মূলত কোনও রাষ্ট্রের ব্যবসায়িক উৎপাদন, মুদ্রা বাবস্থা, প্রশাসনিক বাবস্থার মানচিত্র এবং সর্বোপরি বিশ্ব রাজনীতিতে তার উপস্থাপনা র ভিত্তিপ্রস্তর এবং শিলান্যাস।

কার্ল মার্ক্স তার ‘Historical Materialism’ এ বলেছেন অর্থনৈতিক কাঠামোই মুদ্রা ও রাষ্ট্র কে নিয়ন্ত্রণ করে। তার মতে টাকা হল শ্রমের বিমূর্ত রূপ। কিন্তু বর্তমান কালে অতীব আধুনিকীকরণ -এর ফলে এর মূল ভিত্তি হয়ে দাঁড়িয়েছে ডিজিটাল স্ক্রীন। একটি ক্লিকের তফাতে বদলে যায় দেশবিদেশের সেনসেব্ল-নিফটি। ফলস্বরূপ ডলার-রুপির উন্নতি-অবনতি বনাম সময়ের গ্রাফে বদল ঘটে।

পাঠক গণ আমি অত্যন্ত বিমর্ষ আমাদের দেশের রুপির এই করুণ অবস্থা দেখে। এটাকে তোমরা আমার বাঙ্গালিক উদ্ভামূলক মনোবৃত্তির প্রয়োগ বলতে পার -

এখন রুপির অবস্থা ঠিক এই রকম “ছাতা আছে, মাথা নেই” অবস্থা।

সারা বিশ্বে ডলারের ঝড়ে রুপির তাগিদমারা ছাতা টেকসই হবে না মোটেই। অর্থাৎ ছাতা তো আছে কিন্তু তা বহন করার মত কলা কুশলী নেই।।



মৌলিকত্বের মৃত্যু



Soumyadeep Namhata

BCREC

Civil Engineering

3rd Year

নাহ! আমি মোটেও ভুল কিছু বলিনি। কয়েকটা বোতাম দাবতেই যেখানে ‘Ghibli’ ছবি পেয়ে যাচ্ছি ডিজিটাল স্ক্রীন এ সেখানে আর আর্টিস্ট কেন দরকার মনে হচ্ছে কিছু দিন পর এ পিকাসো বা ভিক্টর ভ্যাঙ্কো ছাড়িয়ে যাবে। পরে দেখতে পাব যে কয়েকটি যান্ত্রিক কলকজা কি সুন্দর ভাবে কয়েকটি বক্র-রেখাংশ র মাধ্যমে সুদৃশ্য মান স্কেট্রাঙ্কন করেছে।

এখন এই কৃত্রিম-বুদ্ধিমত্তা সম্পন্ন প্রাণীটির ফলে আমাদের ইয়ে মানে আমরা মানুষরা যারা শিল্প-এ বেঁচে থাকি এখন মনে হচ্ছে এটাও হবে না আর। এখন যারা উদীয়মান তারা এই ‘Field’-এ তারাও ভয় করছে। তারা তাদের নিজেদের ভাবধারা কে সবার কাছে পৌঁছে দিতে চায় কিন্তু তারা সমালোচক দের প্রশ্রবানে জর্জরিত। ফুল ফোটার আগেই নষ্ট হয়ে যাচ্ছে।

আমরা এত দিন ধরে যে শৈল্পিক বিশ্বাস এ মন ভাসিয়েছিলাম তা এখন ক্ষীণ থেকে ক্ষীণতর হয়ে চলেছে। যখন শিল্পের সাথে ব্যবসায়িক মনোবৃত্তির মিলন ঘটে তখন সেটা আর শিল্প থাকে না।

একজন নিজের জীবনের চার থেকে পাঁচটি বছর ব্যয় করে কম্পিউটার এর ভাষা শিখেছে কিন্তু এই জীব টি তা শিখে নিয়েছে কয়েকটি ‘Circuit’ সমন্বিত বাটন এর ব্যবস্থানে। আপনি ভাল কম্পিউটিং ভাষা শিখলেও তা প্রয়োগ করতে পারবেন না।

মানুষের মতামত প্রকাশের কয়েকটি মনস্তত্ত্ব আছে, তার মধ্যে একটি হল ‘অ্যাট্রিবিউশন ব্যায়াস’। মানুষ যখন কোন কিছু দেখে তখন তার কারন সে নিজের মত করে ব্যাখ্যা করতে থাকে কিন্তু সেই ব্যাখ্যা সবসময় বাস্তব বা সত্য না হয়ে অনেকসময় হাতের কাছে থাকা সহজলভ্য বা আপেক্ষিক ভাবে অ্যাপিলিং মনে হওয়া ব্যাখ্যার ওপর নির্ভর করে। এক্ষেত্রে মৌলিকতার বিশুদ্ধতা বজায় থাকে না।

প্রজুক্তি-শিল্প ক্ষেত্রে হিউম্যান-পাওয়ার এর জায়গা নিচ্ছে এই জীব।

অনেকে বলে চাকরী চলে যাচ্ছে এর জন্য। এই গবেষণা বন্ধ করা উচিত।

কিন্তু আমি তা মনে করি না। যখন কম্পিউটার এসেছিল তখনও এরকম আলোচনা চলত। আসলে কোনো প্রযুক্তি আবিষ্কার হলে সেটা তার পূর্বতন কে প্রতিস্থাপিত তো করেই তার সাথে অনেক নতুন নতুন সুযোগ ও খুলে দেয়।

আমরা দেখেছি যে কিভাবে কম্পিউটার রেভলিউশন অনেক জীবিকার সংস্থান করেছে : **Software Engineer , Data Engineer and many more.**

তেমনি ই এই আর্টিফিশিয়াল ইন্টেলিজেন্স এসে যেমন পূর্বতন অনেক জীবিকার বিনাশ ঘটিয়েছে তেমনি প্রচুর জীবিকার সংস্থান ও করে দেবে। উদা:-প্রস্ট ইঞ্জিনিয়ারিং, এ.আই ইঞ্জিনিয়ার প্রভৃতি।

যেখানে একটা চল ছিল উনিশ শতকে স্নাতক স্তরে পড়ার ফলে ; মৌলিক পদার্থ বিদ্যা , মৌলিক রসায়ন বিদ্যা কিন্তু আজকের যুগে তো তা বদলে হয়ে গিয়েছে ইঞ্জিনিয়ারিং ফিজিক্স বা অন্যকিছু , মূলত পদার্থ বিদ্যা বা নিউটোনিয়ান মেকানিক্স এর যে একটি আবেগ ছিল এই কৃত্রিম বুদ্ধি সম্পন্ন প্রাণী টি এসে সেই

আবেগের কৌণিক সরণ ঘটছে। কিন্তু প্রযুক্তি যতই গগনচুম্বী হোক না কেন নিজের উন্নত মানের দিক থেকে সে তার, মানব জাতির 'সারভাইব' করার ব্যবস্থা-র আধুনিকীকরণ স্বরূপ পূর্বসূরী বিবর্তনে এর নিশান নিশ্চিতই স্পষ্ট থাকবে তা যেন - " শম্বুক এর নীররেখার ন্যায় " |

এর ভাবান্তরে বা অলংকৃত করলে বলা যায় যে -

" শম্বুক অর্থাৎ শামুক এবং নীর অর্থাৎ জল | শামুক যেমন যে দিকেই যাক না কেন সে কিন্তু একটা শ্লেস্মা বা মিউকাস এর একটি চকচকে রেখা রেখে যায় যা তাদের চলাচলে সাহায্য করে এবং বিভিন্ন পৃষ্ঠতলে লেগে থাকতে সাহায্য করে | তেমনি আমরা যদিও সময়যান বা ইন্টার গ্যালাক্টিক স্পেস ট্রাভেল(কাল্পনিক) করেও থাকি না কেন আমাদের শিকড় কিন্তু সেই স্যার আইজ্যাক নিউটন এর গতিসূত্র তা কিন্তু আমার কখনো ভুলবো না |"

আচ্ছা কখনো কি ভেবে দেখেছেন যে কেন এই নিবন্ধ 'মৌলিকত্বের মৃত্যু' নিয়ে কপাল ভাঁজ করা প্রয়োজন আছে ? ভেবে দেখেছেন কখনো ?

কারণ কুস্তীলকবৃত্তি বা ইংরেজি ভাষায় যাকে বলে 'plagiarism' |

মানব জাতির উন্নয়ন বা সংস্করণ এর মূল ভিত্তিই কিন্তু এই সনাতন মৌলিকত্বের ওপর নির্ভরশীল | যত আমরা মৌলিকত্ব যশ কে হারাবো ততই আমরা দূরে সরে যাবো আন্তঃ-মহাকাশীয় ভ্রমণ সূচি থেকে এবং আমাদের এই বিশ্ব ব্রহ্মাণ্ডের এক কোণে থাকা নিজেরা এক অনন্য এবং ইন্টার গ্যালাক্টিক ক্রিয়েচার হিসেবে নিজেদের প্রকট মান হওয়া |

মৌলিকত্ব এর প্রথম বিকাশ ই হলো - ' আমাদের সেল ফোন বা স্পর্শ সংবেদনশীল ইলেকট্রিক গ্যাজেটস স্পর্শ সংবেদনশীল কেন ? '

আমি এই প্রবন্ধের ইতি ঘোষণা করব একটা মন্তব্য এবং কয়েকটি ছন্দ বদ্ধ শব্দের সমন্বয়ে গঠিত বাক্যের সাথে |

" এ কয়েকটি কম্পাক্সের বাঁধনে বাঁধা ,
মনাবেশের অলংকরণ|
এ কয়েকটি ভাবের ধাঁধা,
ব্যুৎপত্তির ব্যাকরণ || "



The Stories of All Lazy Sundays

Soumyadeep Namhata

BCREC

Civil Engineering

3rd Year



The stories of all Sundays are same. They all are beautiful and majestic when the morning sun rises in the sky with the infinite number of gallant and vigorous rays reflecting on every existing things on earth. It seems that there's been a days and months and years of darkness and duskiness but at the morning when the sun beams come out the expression and the reactions showcase the glorious and gallant faces like – Every corner is irradiated by the glorious splendour of Sun's potent rays.

When the rays reflect on the leaves of the dew-kissed tress, the drops of water create an amazing precious one out of everything. The warmth of sun rays that time is no less lovely or adorable and unrestrained than a so lovely hug of your best one on the earth. It absolutely drives me to mention the some lines of the great Rabindranath Tagore-

“একটি ধানের শিষের ওপরে

একটি শিশিরবিন্দু”

So much powerful the rays are I think it can change your health and your depression to a excellent gratefulness. Time flies so do we. And if I tell you, the beauty will surpass all parameters of measuring beauty - radiant, irresistible charm.

It reminds me how the animals of 'Animal Farm' by George Orwell snatched their freedom and went on owning a great day from the human being and the rebellious joy on that day. The sun rising with its vibrant and revolutionary rays that will remove all their sadness and melancholy and blossom the new generation and new beginning washing out the brutality and vandalisms.

When it's mid of the day everything gets or so silent remaining the bantering of its children. That the time when the word 'lazy' sounds good before 'Sunday'. Then it is not that cute sun and it's warmth rays. It has got fiery. Like it burning itself up there in the sky.

From my room I can cherish a wonderful view of like the world has stopped , everything has changed etc. I am very lucky to have a room which is surrounded by a pond in the north side and a garden developed by my father in the east side.

Here I can find my thoughts and lines in my mind jumbled up and ravel out and making rhythmically placed words and lines sometimes and enjoying the mesmerizing beauty of the nature. It is very deep which I can't tell you in words what and how I feel about the lazy Sundays. These lazy Sundays sometimes become the Sherlock Homes to find out the unraveled clues for the upcoming words and lines and new genre of way to figure out the hidden gems of nature.

Only thing it tends to me by recalling a song "Sunday Mornin' Comin' Down" by Kris Kristofferson _____

*" On the Sunday morning sidewalks
Wishing, Lord , that I was stones
Cause there's something in a Sunday
That makes a body feel alone"*



The Most Precious Star Gazing

Soumyadeep Namhata
BCREC
Civil Engineering
3rd Year



Well, this is a precious hobby I think. What do you think tell me. If you go through the article you can find out it's why.

Whenever I set my eye-balls in the sky above. A lots of thoughts come into my mind. The small stars glittering in the sky plays hide and seek with me. It's very hard to put attention on all of them but the glorious one. They smile at me and seems that they are inviting me to their world of magic.

When I surrounded the sun near about 15 or 16 times I discovered and fallen in love with this habit. The universe is beyond of it. I really get emotional and get attached how will be the world of their own world, fully difference world with different laws of physics and extraterrestrials or aliens.

I belong from a middle class family and it is precious to me .

In others world may be they are having this wonderful and auspicious moments on a yacht in the mediterranean sea with their loved ones.

For me right now it is the beautiful girl of nature and me lying on the lap on her and the coldness. It tends me to think about the sci-fi moves I have gone through like – Avengers, Interstellar, Gravity or so on. Really they do exist on the other end of the universe.

A lots of thing peek in my mind when ever I fit telescope in the sky and having seen the dusky clouds and their 'sloth' displacement.

But when the nature bless me much more than I want I become so fortunated to have the view of oh so lovely the 'moon' and some stars beside her. Then I present there on the surface of moon and try to look. I map a sketch of the stars connecting in my mind and try to find patterns out of them. I have found having the 'Plus' , 'Minus' and other various kinds of symbols.

The motion of emotion speed up , the goosebumps agitate and the intensity hikes up when it's been a combination of breezing , gorgeous moon and the stars around her invent an awesome and a big 'WOW' moment and it's so thrilling.

It pushes me to smile alone when eyes of mine get sit for some lights moving and reminding me that we are not backward. We are moving to a better future i.e we can be at level 1 of Kardashev scale.

The ultimate darkness beyond the solar system just crazy isn't it?

Some day the precious what ever be it may be true and come into reality.

May be we can travel with futuristic spaceships or vehicles and visit to the planets and the stars which are a millions of million light year afar from us and from our blossoming technology.



PHOTOGRAPHY





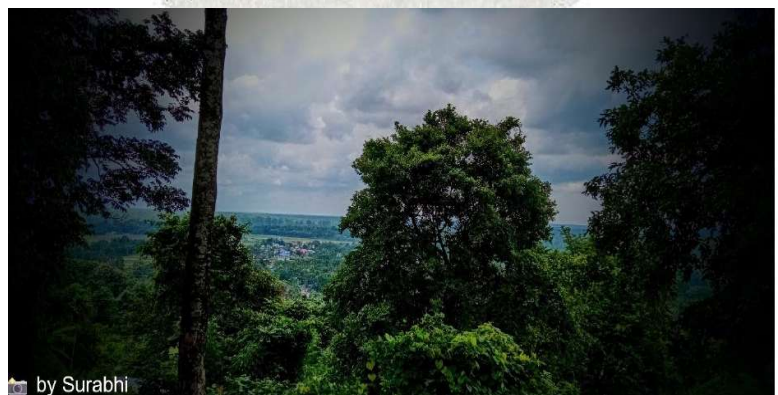
by Surabhi



by Surabhi



by Surabhi



by Surabhi

Surabhi Sengupta

BCREC
Civil Engineering
3rd Year





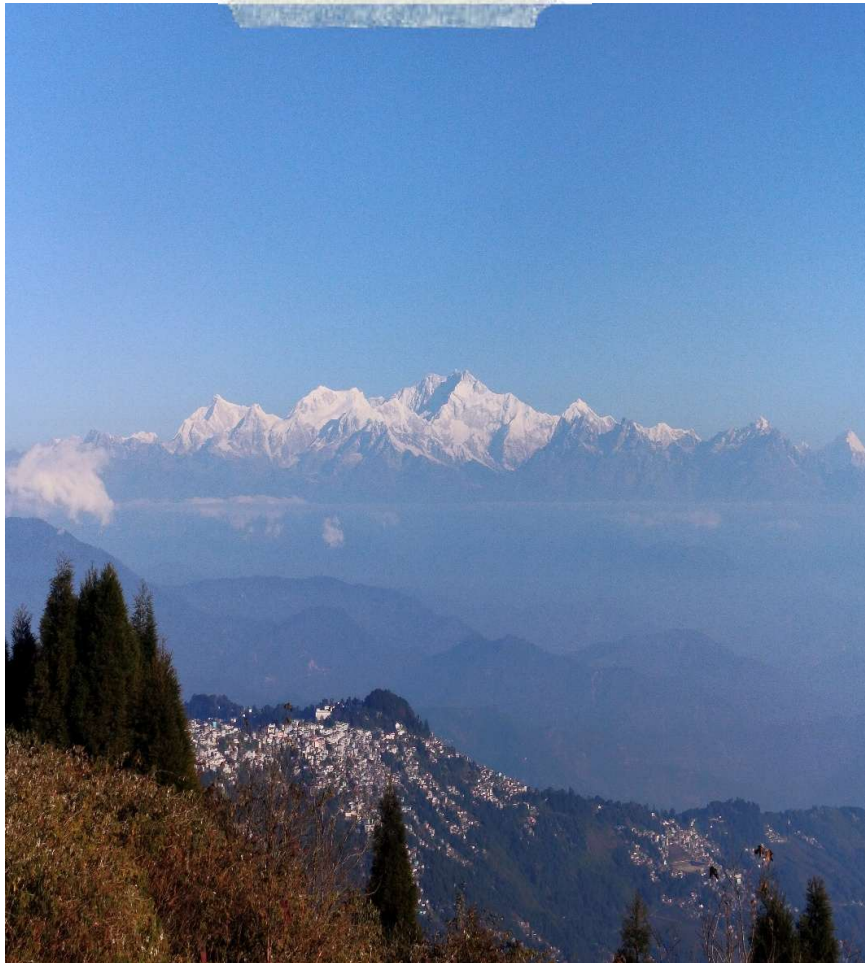
Debsmriti Majee

BCREC

Civil Engineering

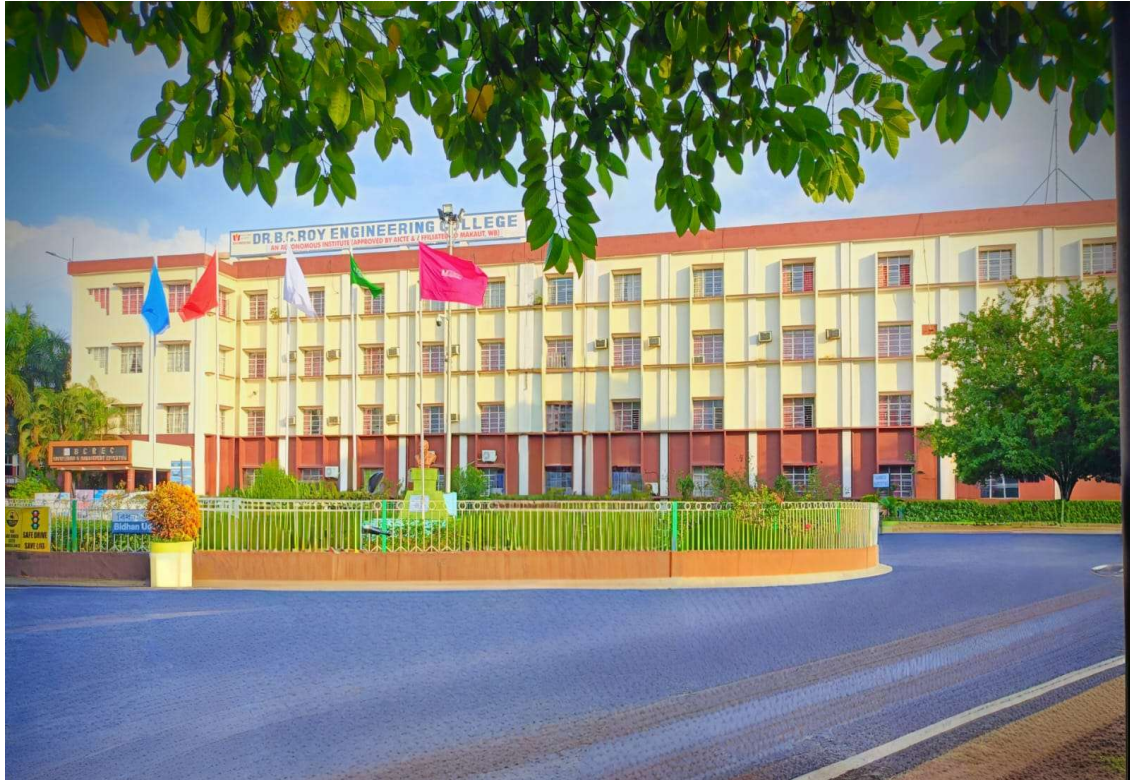
Passout Batch 2026





Pralay Dan
BCREC
Civil Engineering
Passout Batch 2026





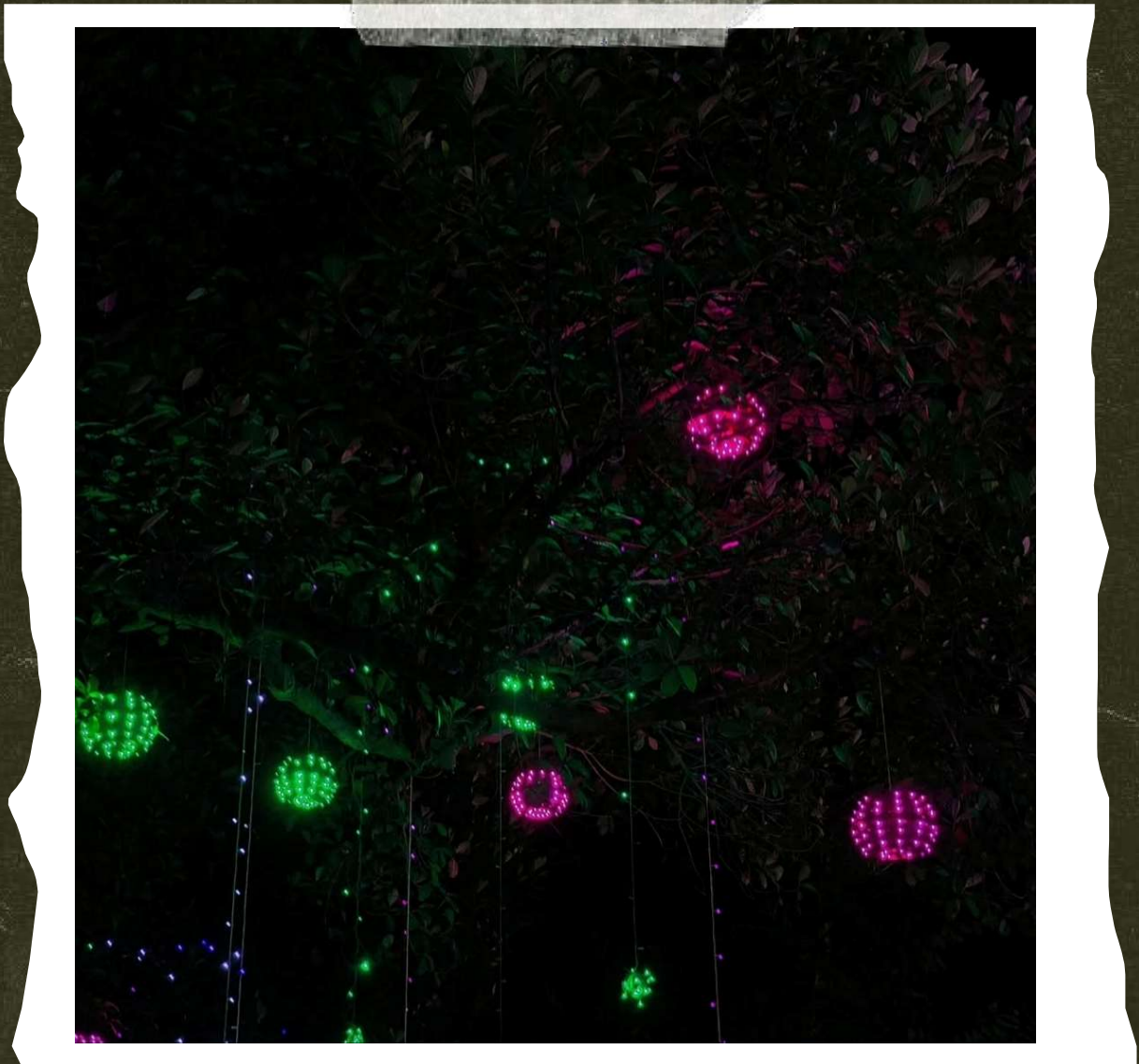
Swapnesh Sanyal

BCREC

Civil Engineering

3rd Year





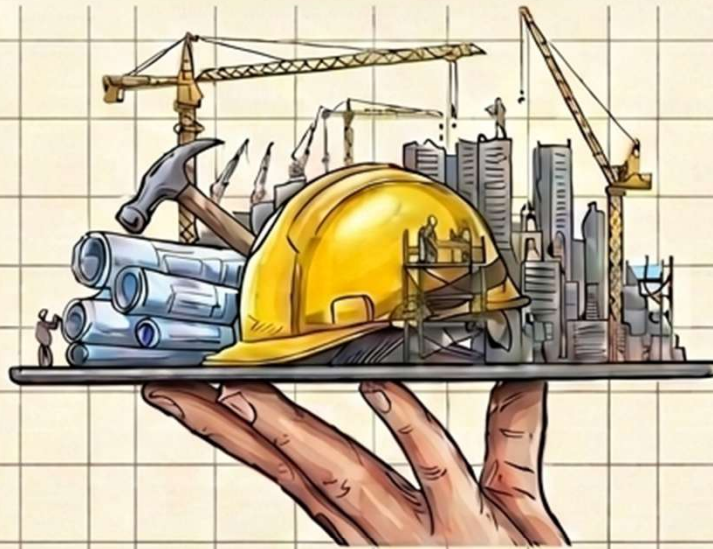
Subhadeep Ghosal
Civil Engineering
3rd Year





Shbhajit Mondal
Civil Engineering
3rd Year





EVENTS & WORKSHOPS



Teachers' Day Celebration



FRIDAY, 5TH SEPTEMBER, 2025

www.bcrec.ac.in

Teachers' Day – Celebrating Talent, Gratitude & Togetherness

This year, the Batch of 2027 students organised a wonderful Teachers' Day celebration with great enthusiasm, creativity, and attention to detail. From mesmerizing dance performances by Pritika Barman to energetic performances by Srizan and his team, the programme showcased remarkable talent. Dibyasree Roy captivated everyone with her magical voice, while Sadik Kabir and Soumadeep De delighted the audience with their singing. The programme also began meaningfully with the traditional lighting of the lamp. The inspiring words of HoD Sanjay Sengupta Sir, Arijit Banerji Sir, and Md Hamjala Alam Sir added depth and meaning to the celebration. The students' excellent organisation, thoughtful arrangements, hospitality, and discipline made the event truly special. The support of the final-year Batch of 2026, including Udit Sarkar, Sahabuddin, Arghya Mukherjee, Sougata Maji, Nabajyoti Haldar, and others, was also commendable. A heartfelt appreciation to all the students for making this Teachers' Day memorable. Wishing you all continued success and happiness in life!



Mahishasuramardini

A Celebration of Talent, Culture & Devotion



THURSDAY, 18TH SEPTEMBER, 2025

www.bcrec.ac.in

Mahishasuramardini – A Mesmerizing Tribute to Goddess Durga

Our talented Civil Engineering students of the 2026 batch brought the timeless spirit of Mahishasuramardini to life through a powerful and captivating performance at Dr. B. C. Roy Engineering College, Durgapur, on 18 September 2025 (Thursday). Their dedication, creativity, and teamwork beautifully reflected the strength, courage, determination, and triumph of righteousness embodied by Goddess Durga. Through every expression, dialogue, musical rendition, and movement, the students showcased their immense talent and commitment. Their performance not only entertained and inspired the audience but also beautifully celebrated our rich cultural heritage and traditions. This memorable presentation enriched the cultural spirit of the Department of Civil Engineering and demonstrated that education goes beyond the classroom. Such activities provide students with opportunities to express themselves, build confidence, develop teamwork, and connect with our cultural values. The sincere efforts and enthusiasm of every participant made this occasion truly special and added another proud moment to the journey of Dr. B. C. Roy Engineering College, Durgapur. Heartiest congratulations to all the participants, mentors, and everyone who contributed to the success of this wonderful performance! May their talent, creativity, and passion continue to shine and inspire many more such memorable performances in the future.





FACULTY DEVELOPMENT PROGRAMME

Durgapur, West Bengal, India
Bengal 713206, India
713206

TUESDAY, 1st JANUARY, 2026

www.bcrec.ac.in

Faculty Development Programme on Smart City Planning through Civil Engineering Innovations

The Department of Civil Engineering, Dr B C Roy Engineering College (Autonomous), Durgapur, organized a six-day Faculty Development Programme (FDP) on “Smart City Planning through Civil Engineering Innovations” from 13th to 19th January 2026 in hybrid mode. The programme aimed to enhance participants’ understanding of smart city concepts, emerging technologies, sustainable infrastructure, and civil engineering solutions. The FDP covered GIS and urban planning, water-sensitive planning, water resilience, AI applications, smart geomaterials, and structural health monitoring. It also highlighted IoT, AI/ML, Digital Twins, Smart Utilities, and data-driven urban governance through lectures, hands-on sessions, case studies, and discussions. Eminent academicians and professionals from IIT Bombay, IIT Kharagpur, NIT Jalandhar, NIT Raipur, BCREC, and other organizations delivered sessions. With 46 participants, 10 resource persons, and 2 coordinators, the programme received participation and feedback, enhancing knowledge, research orientation, and professional competence in smart city planning and civil engineering innovations.





SDG AWARENESS PROGRAMME

WEDNESDAY, 25th FEBRUARY, 2026

www.bcrec.ac.in

Awareness and Hands-On Demonstration for Climate-Resilient Construction Practices

The Department of Civil Engineering, Dr. B. C. Roy Engineering College, Durgapur, organized an SDG Awareness Programme on 25th February 2026 at Jemua Bhadubala Bidyapith School. Aligned with SDG 13 – Climate Action, the programme focused on sustainable and climate-resilient construction practices. Students demonstrated cool roofs, permeable pavements, rainwater harvesting, fly ash bricks, AAC blocks, and elevated structures. A total of 108 participants, including 85 school students and 23 student volunteers, participated. The programme concluded with a quiz, prize distribution, and vote of thanks, promoting awareness of sustainable construction and climate action.





MEGALITH IIT KHARAGPUR

FRIDAY, 20th MARCH, 2026

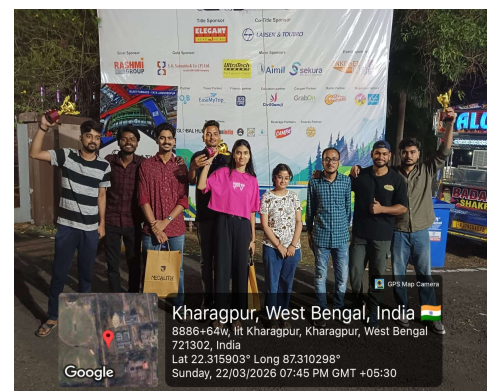
www.bcrec.ac.in

INDIA'S LARGEST CIVIL ENGINEERING TECHNICAL FEST MEGALITH IIT KHARAGPUR

A total of 12 students from the Civil Engineering Department of BCREC participated in Megalith, IIT Kharagpur 2026 and made the department proud by securing 🏆 1st Position in all three events: 1st Prize-Model Exhibition, 1st Prize-VORTEX, 1st Prize - LIFT-O-VATE (Joint Winners). Competing against students from premier institutes across the country, our students demonstrated exceptional knowledge, creativity, teamwork, and technical skills. This outstanding performance marks the fourth consecutive year of the Civil Engineering Department's success at Megalith. Congratulations to all the winners and participants for this remarkable achievement!



Kharagpur, West Bengal, India
8886+64w, IIT Kharagpur, Kharagpur, West Bengal
721302, India
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Friday, 20/03/2026 10:39 PM GMT +05:30



Kharagpur, West Bengal, India
8886+64w, IIT Kharagpur, Kharagpur, West Bengal
721302, India
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Sunday, 22/03/2026 07:45 PM GMT +05:30



Kharagpur, West Bengal, India
Vikramshila, IIT Kharagpur, Kharagpur, West Bengal
721302, India
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Kharagpur, West Bengal, India
Vikramshila, IIT Kharagpur, Kharagpur, West Bengal
721302, India
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Sunday, 22/03/2026 07:26 PM GMT +05:30



ULTRATECH RMC PLANT VISIT



GPS Map Camera

www.bcrec.ac.in

WEDNESDAY, 25th MARCH, 2026

Industrial Visit to UltraTech Ready Mix Concrete (RMC) Plant, Rajarhat

BCREC students from the Civil Engineering batch of 2027 got the opportunity to visit the UltraTech Ready Mix Concrete (RMC) Plant, Rajarhat, as part of an industrial visit organized by the Department of Civil Engineering, Dr. B.C. Roy Engineering College, Durgapur. Accompanied by faculty members Prof. Pranoy Roy, Prof. Amit Kotal, Prof. Ajitesh Sir, and Prof. Aditya Sir, the students gained practical exposure to the complete RMC production process, including aggregate storage, cement silos, automated batching, concrete mixing, quality control, slump testing, and transit mixer operations. They also interacted with industry professionals and observed modern plant automation and quality assurance practices. The visit strengthened their understanding of concrete technology, mix design, and real-world construction practices, bridging the gap between classroom learning and industry applications.





Beyond the Classroom: BCREC Civil Engineering at the IDE Industrial Visit

As part of the IDE Bootcamp, our Civil Engineering students gained valuable hands-on exposure through a specialized industrial visit. They observed advanced manufacturing processes, automated workflows, and real-world industrial operations, from plastic bottle production to two-wheeler mechanical components. The visit helped students connect classroom concepts with industry practices, interact with professionals, and understand real-world challenges and entrepreneurial opportunities. Proud of our BCREC students for their curiosity, learning spirit, and enthusiasm!



Inauguration of Centre of Excellence An Initiative by Ultratech



THURSDAY, 21st MAY, 2026

www.bcrec.ac.in

A New Era of Sustainable Construction Begins at Dr. B. C. Roy Engineering College

We are delighted to share the successful inauguration of the Centre of Excellence for Sustainable Construction Materials in collaboration with UltraTech Cement at the Department of Civil Engineering, Dr. B. C. Roy Engineering College, Durgapur.

This initiative marks a significant step towards bridging the gap between academia and industry by promoting innovation, research, and practical learning in sustainable construction technologies. The Centre of Excellence will provide students with hands-on exposure to advanced construction materials, modern industry practices, and emerging technologies shaping the future of civil engineering.

We extend our sincere gratitude to the esteemed dignitaries of UltraTech Cement, faculty members, and everyone whose presence made this event memorable and inspiring.

Together, we look forward to nurturing future-ready engineers and creating impactful industry-academia collaborations.



NIT DURGAPUR

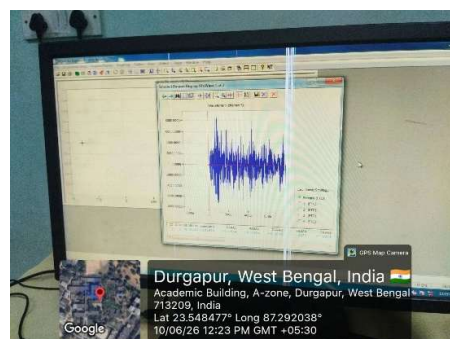
SHM LAB VISIT



WEDNESDAY, 10th JUNE, 2026

www.bcrec.ac.in

BCREC students from the Civil Engineering batch of 2028 had the opportunity to visit the Structural Health Monitoring (SHM) Laboratory, NIT Durgapur, as part of a technical visit organized by the Department of Civil Engineering, Dr. B.C. Roy Engineering College, Durgapur. Accompanied by faculty members Prof. Anupam Kumar Biswas and Dr. Soumyadip Das, the students gained practical exposure to advanced SHM technologies, including sensor-based monitoring, strain gauge installation, data acquisition systems, real-time monitoring dashboards, accelerometer sensors, vibration-based structural assessment, and Non-Destructive Testing (NDT) techniques. They also interacted with researchers and observed modern monitoring systems used to evaluate the health and safety of bridges, buildings, and other civil infrastructure. The visit strengthened their understanding of structural engineering, smart infrastructure, and modern monitoring technologies, effectively bridging the gap between classroom learning and real-world engineering applications.



Visit to Satabdi Monolithics Industries Pvt. Ltd.



Durgapur, West Bengal, India
G8vr+ xv3, Durgapur, West Bengal 713206, India
23.41826°

MONDAY, 15th JUNE, 2026

www.bcrec.ac.in

Bridging Classroom Learning with Industrial Practice

The Department of Civil Engineering, Dr. B. C. Roy Engineering College, Durgapur, successfully organized an industrial visit to Satabdi Monolithics Industries Pvt. Ltd., Barjora, Bankura, on 15 June 2026. Prof. Md. Md Hamjala Alam and Prof. Chanchal Das accompanied the Students. During the visit, B.Tech students had the opportunity to observe the manufacturing process of monolithic refractory products, understand material testing procedures, and learn about industrial quality assurance practices. The visit provided valuable practical insights into modern production techniques and industry operations, enriching their classroom learning with real-world experience.



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Sun Para, Saharjora, West Bengal 722202, India
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Saharjora, West Bengal, India
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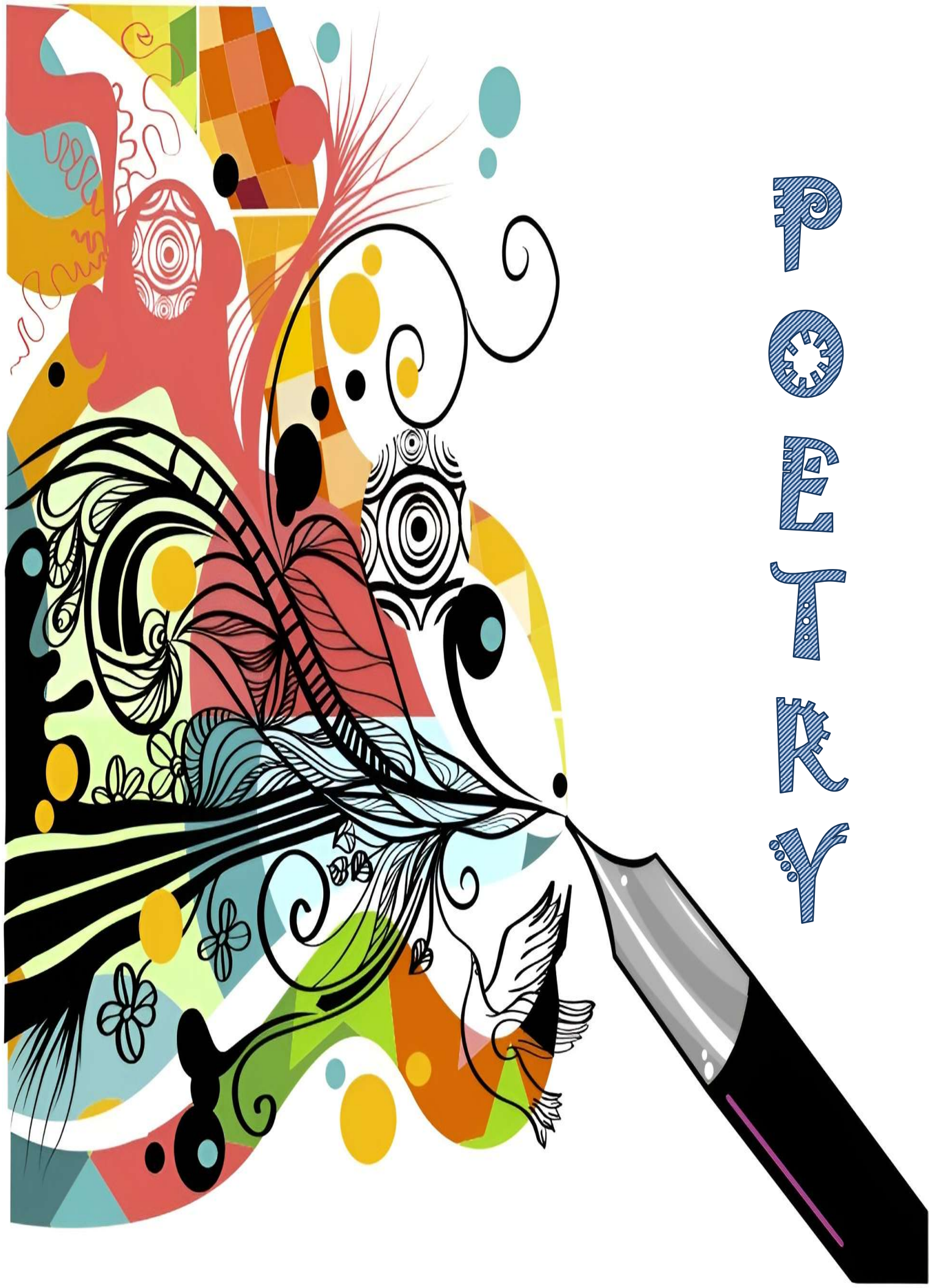
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Durgapur, West Bengal, India
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Dejuri, West Bengal, India
C74c+2xj, Dejuri, West Bengal 722202, India
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জীবনীশক্তি



অনিন্দিতা সেনগুপ্ত

(কত মেধাবী তরুণদের জীবন হতাশায়, ব্যর্থতায় ঝড়ে যাচ্ছে অকালে, অথবা social media তে আসক্ত হয়ে নষ্ট হয়ে যাচ্ছে জীবনের মূল্যবোধাতাই সমগ্র তরুণ জীবনীশক্তির উদ্দেশ্যে আমার এই রচনা)

ঈশ্বরের করুণা ধারায় তোমার যে অফুরন্ত জীবনীশক্তি,

সে অমৃত ভান্ডার কে সযত্নে রেখো।

গর্ভে সুরক্ষিত যে ছোট্ট প্রাণ মায়ের মমতায়,

দেখেছে পৃথিবীর আলো;

তোমার সে প্রাণকে আলোকিত করে রেখো।

বাবার রক্ত জল করা শ্রমে, দায়িত্ব কাঁধে,

তোমাকে মানুষ করার যে স্বপ্ন;

সে স্বপ্ন কে তুমি মহীরুহ করে তোলো।

এই অমূল্য জীবন নয় তো তোমার একার,

অমূল্য প্রাণ নষ্ট করার নেই তব অধিকার।

তাই জীবন টা কে কর্ম দিয়ে সাজিয়ে তোলো;

আর লক্ষ্য নিয়ে তীরের মত এগিয়ে চলো।

চলতে পথে ভুল ভ্রান্তি,

না পাওয়ার হতাশা মাড়িয়ে চলো।

তুমি জানো না,

হয়ত তোমার কর্ম জীবনের দিকে চেয়ে আছে

লক্ষ লক্ষ আশাবাদী চোখ।

একদিন তুমিই মহীরুহ হয়ে

ছায়া দেবে, আশ্রয় দেবে কত অভাগা কে।

তাই আর নয়, কাটিয়ে ওঠ শীতঘুম।

উজ্জীবিত কর তোমার অফুরন্ত জীবনীশক্তি কে।।



হেরে যাব না



অর্পিতা গরাই

BCREC

Civil Engineering

3rd Year

ক্লাসের শেষ বেঞ্চে বসে আমি,
স্যার শুধায়, "ও কি পারবে জানি?"
আমি চুপ থাকি, মুখে হাসি রাখি,
মনে মনে বলি, "একদিন দেখাব নাকি"।

ড্রয়িং খাতা ভরে আঁকিঝুঁকি,
রাত জাগে চোখ, স্বপ্নটা উঁকি।
ঘুম নেই তবু জেদটা রাখি,
জানি আমার পথটা একটু বাঁকি।

মা ফোনে বলে, "কেমন আছিস খুকি?"
আমি হেসে বলি, "ভালো আছি, দেখি"।
বুকের ভেতর চাপা কান্না ঢাকি,
ইমারত কি আর চোখের জলে আঁকি?

মেয়ে বলে সাইটে সবাই তাকায় বাঁকা,
আমি শক্ত করে হেলমেটটা বাঁধি পাকা।
জানি আমার কাজই দেবে জবাব,
আমার গড়া ভিতই দেবে হিসাব।

টপার নাই বা হলাম আমি,
তবুও হার মানার পাত্রী না জানি।
একদিন সবাই পড়বে দেখে,
"এই সেতুটা ওর হাতেই গড়া, ঐকে"।



আমরা মানেই আগামী



দেবারতী দাস

BCREC

Civil Engineering

3rd Year

আমরা মানে শুধু ফ্রেশার নয়,
আমরা মানে নতুন ভোরের ভয়।
বইয়ের পাতা, সাইটের ধুলো,
স্বপ্ন বুনি মুঠো মুঠো।

আমরা মানে Gen Z-এর চোখ,
AutoCAD-এ আঁকা নতুন শ্লোক।
ঘিওডোলাইটে খুঁজি দিগন্ত,
BIM-এর ভাষায় লিখি বসন্ত।
Reel দেখি না শুধু, Reel বানাই কাজে,
ক্লাসরুমের থিওরি মেলাই সাইটের ভাঁজে।

আমরা মানে কাঁচা হাতের জোর,
ভুলের মাঝে খুঁজি আলোর দোর।
স্যার-ম্যামদের শিক্ষা নিয়ে বুকে,
ইটের পরে ইট গাঁথি সুখে।
প্রথম যেদিন সেফটি হেলমেট পরি,
সবার বুকেই বাজে গর্বের ঘড়ি।

আমরা মানে প্রশ্ন তোলা মুখ,
কেন পুরনো? খুঁজি নতুন সুখ।
গ্রিন বিল্ডিং, স্মার্ট শহর,
আমাদের হাতেই গড়বে নগর।
নদীর বাঁধ হোক বা মেট্রো লাইন,

স্বপ্ন দেখি, একদিন সই হবে ডিজাইন।
আমরা মানে শুধু চাকরি নয়,
আমরা মানে দায়িত্ব নেওয়ার ক্ষয়।
ব্রিজ বাঁধবো লোহায় নয়,
বিশ্বাসে, শ্রমে, পরিচয়।
একটা ভুলে শুধু নাম্বার কাটা নয়,
একটা ভুলে প্রাণ যায়, দায় থাকে ভয়।

আমরা মানে ঘামে ভেজা শার্ট,
রাত জেগে করা অ্যাসাইনমেন্ট আর্ট।
ভাইভার আগে বুকের ধুকপুক,
তবুও চোখে আকাশ ছোঁয়ার সুখ।
লাস্ট বেঞ্চার সবাই আজ প্ল্যান খুলে বসে,
কারণ আমরাই Gen Z, হার মানি না শেষে।

আমরা মানে মায়ের হাতের আদর,
বাবার কাঁধের নীরব চাদর।
টিউশনির টাকায় কেনা প্রথম স্কেল,
সেই স্কেলেই মাপের আগামীর খেল।
ভাত কম পড়ে যাক, তবুও বলে বইটা কেন,
সেই ঋণ শুধব ইমারত গড়ে, এই তো পণ।

তাই বলি, ছোট ভেবো না আর,
আমরা Gen Z, আমরাই হাতিয়ার।
আমাদের হাতে কলম, মাথায় প্ল্যান,
আমরাই আনব উল্লয়নের বান।
ইন্টার্নশিপে চা এনে দেব, সাইটে রোদে পুড়ব,
শিখে নেব সবটা, একদিন মোরা ঘুরব।

ভিতের পরে ভিত গাঁথবো,
উঁচু হবে আরেক তলা।
ব্যর্থতার রাত পেরোলেই,
সকাল আনবে সাফলোর মেলা।
হোঁচট খাব, পড়ে যাব, আবার উঠে দাঁড়াব,
কারণ আমরা সিভিলের দল, মাটি কামড়ে লড়াব।

আমরা মানে আমি, আমরা মানে তুমি,
আমরাই গড়ব আগামী ভূমি।
আমরা মানে শপথ, আমরা মানে জেদ,
আমাদের হাতেই হাসবে দেশের ভবিষ্যৎ-ভোর।
স্যার-ম্যামের আশীষ আর ভরসা নিয়ে,
Gen Z ফ্রেশার, দেব কাজের জোর।



অভয়া



অর্ঘ্য মুখার্জী

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বাঁচাও ..
কোথাও মেলেনি কোনো সাড়া
লোভী কিছু পশুর দল,
ভোগ করলো,
মন ভরালো আমার দেহ দ্বারা।।

আঁচড়ে দিলো, কামড়ে নিলো,
আরও করলো কত কিছু...
ওদের হয়তো শান্তি হলো, কিন্তু..
মৃত্যু এলো আমার পিছু।।

ছিল ওরা বেশ কয়েকজন,
কেবল আমিই ছিলাম একা..
অন্ধকারের সেই সেমিনার হল
যাচ্ছিল না যে, কাওকে দেখা।।

রাতে আমি ছিলাম ...ওন ডিউটি
এটাই কি আমার দোষ??
মেয়ে হয়েছি বলেই কি ওদের..
আমাদের ওপর এত রোস .??

আমি তো চলে গেলাম ..
না ফেরার সেই দেশে
আমি ছাড়া মা-বাবার আছে কে??
দেখবে কারা তাদের শেষে??

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



অভয়া



অর্ঘ্য মুখার্জী

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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
তুলির 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
পারিনি 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।।



The Shattering World



Soumyadeep Namhata

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The shattering world and it's shattering dream,
The shattering world and it's shattering scream.
The shattering world and it's art,
In shattering world it's its part.

The shattering world and the greed of earth,
The shattering world and the dearth of all,
The shattering world and we need mirth.
The shattering world and it's hilarious call.

The world was never before,
Shattered with drops of tear.
It did use to soar,
But now a lump of blood near.

The resonating waves of voice and spirit,
Are still shivering in the air.
Causing the arousal a lots of merit,
And the waves and chanting of holy prayer.

The loaded magazine and it's sound,
Is acting just like a hound.
To quench it's thirst of blood,
And making Red flood.

The seconds of terrors,
Are proved in the gentle eyes.
This humanity is full of errors,
In the hugs, disappointing sighs.

The sounds of heavy boots with hard greed,
Hey God, you have planted what type of seed?
The misuse of power,
They did blood their hand and shower.

The fires born in the dark,
Are meant to mark.
The sacrifice of lives,
A lots of undelusional vibes.

They took a bunch of brain,
How can we recover the gain?
The jews are Godlike,
For their existence, they must strike.

Stalin, Musolini and Hitler,
We don't wanna be their butler.
They are the root of demonic forces,
The total system is a hoarse.

Where there a whole loaded with metal projectile,
And the lash on the democracy,
The darkness and the thorn of hostile,
A weather full of barbarity.

Thy world and thy creation,
What's its purpose?
How we can get salvation?
Will the be disastrous?

The shattered things are everywhere,
Where we can find thee?
Where will we get the abode in nowhere?
The shattered oscillating hertz still shattering me.



She Who Walks Through Firelight



দেবারতী দাস

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She rose where silence chained the door,
Barefoot heart on a broken floor.
They named her weak, they named her less,
Yet stars stitched gold into her dress.
They weighed her dreams with iron hands,
Built narrow walls and harsh commands.
But rivers laugh at stones that stay,
And carve their freedom day by day.
She carries cities in her eyes,
Neon dawn and temple skies.
One hand holds code, one hand holds flame,
The future softly speaks her name.
They taught her shame in ancient tongues,
Placed dust and fear on growing lungs.
Yet in her breath the conch-shell cried,
And sleeping thunder woke inside.
She walks through offices of glass,
Lets old injustice feel her pass.
Her heels strike time like sacred drums,
And every hallway hears what comes.
She is the mother, child, and sea,
The lock, the key, the destiny.
No throne can keep, no chain can bind,
The storm of body, soul, and mind.
She prays, she builds, she breaks, she mends,
She falls, she rises, bends, transcends.
Where women stand, the dark grows small,
For when she rises, rises all.



POETIC LINES

AMITESH PRIYADARSHI



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An Ideology crafted, an opiate for the soul, irrelevant to the context of life: Love

You were the reason I counted seasons, until one counted me out.

Forsaking truth, pursued shadows – emptiness the only certainty.

Between love and lust, my conscience bleeds.

My heart, canvas of darkness. Your touch a symphony of color and light.

I am the architect of my collapse, and your desire the blueprint that shapes it.

One held desire, the other despair. You carved within my orb.

You bled for the poison and called it The Bleeding Grace.

To birth my verse, I exiled the soul who stirs it.

In a realm of agony, you weren't my escape but the liberation written in ruins.

By- Otaku



They Crucified My Words



Soumyadeep Namhata

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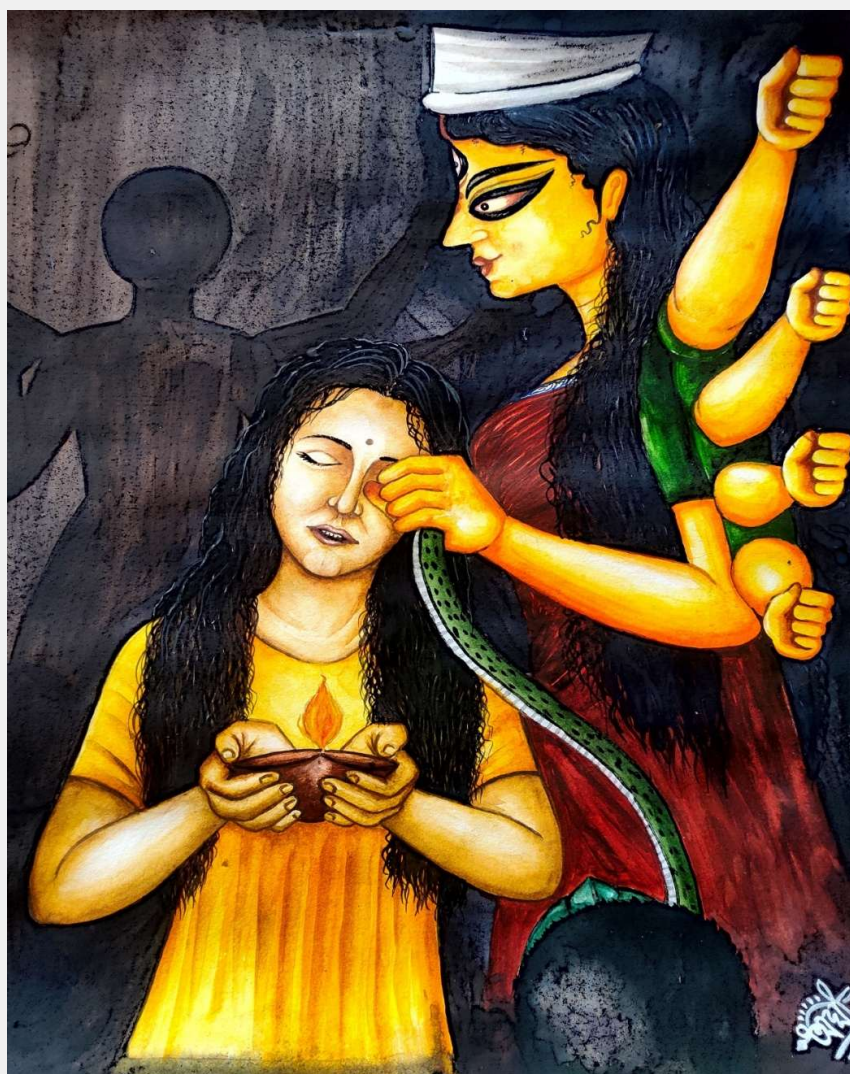
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Hey, Jesus
Please mercy them,
Those who hast crucified my words
Replenish 'em with some shame,
And tell 'em to drop the swords.
They don't know what they have done,
But the past has gone.
It gave me more energy,
And thus created a synergy.
Whenever my soul finds a symphony,
Those words came like a cacophony.
Give me power of a full potential,
Give me waves of substantial.
Cut off the weeds all around the world,
And make systems bold.
They opposed the system,
In mind they are lame.
They don't know,
They wanted to kill,
An artistic being,
They are very ill.
The almighty will take care of them,
In their wit, how these came.
It's very misuse,
They will be judged by Jeush.
This cacophony of this situation,
And my rhapsody and no hesitation.



DRAWING



ARGHYA MUKHERJEE

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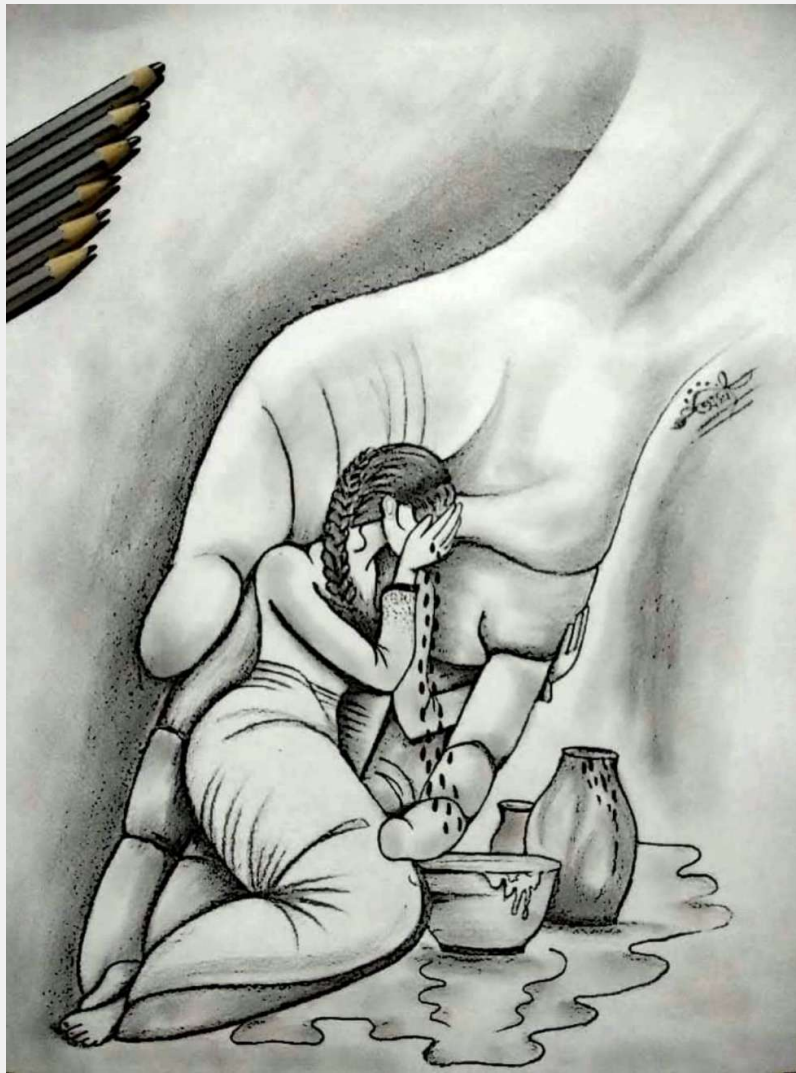
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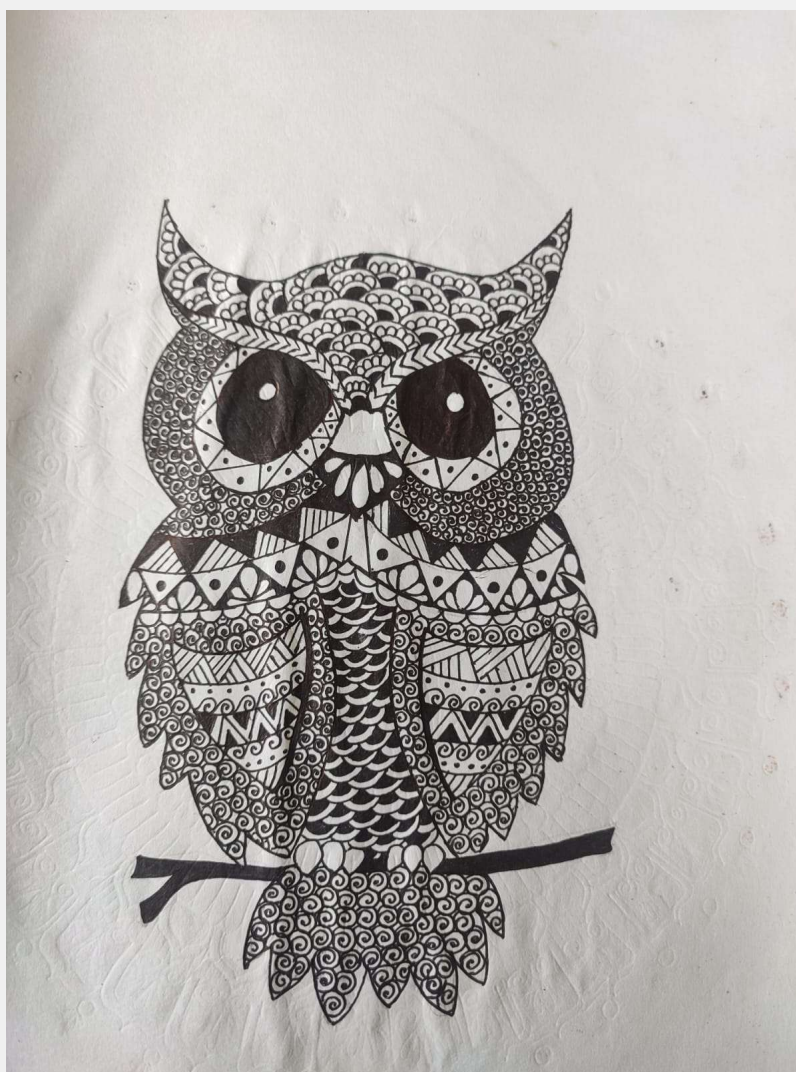
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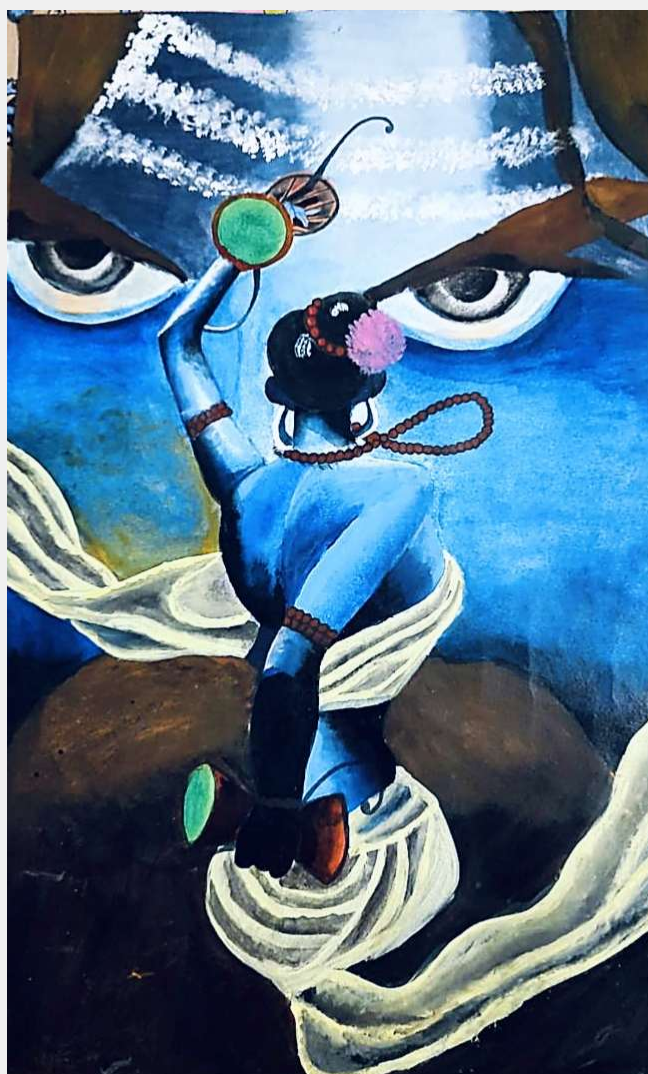
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RISHITA BID

3rd YEAR

DEPARTMENT OF CIVIL ENGINEERING



SNIGDHA BERA

3rd YEAR

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देवी कहानी

eMagazine

VOL: 6

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.

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