

Volume: VI



2024-2025



TERRA NIRMAN

Building Foundations, Shaping Futures

Climate Change Mitigation and Adaptation

Department of Civil Engineering

Vision:

To impart quality education in Civil Engineering.

Mission:

M1: To provide an experiential teaching-learning environment and promote research culture.

M2: To establish a center of excellence and research culture by providing training of modern tools and emerging technologies.

M3: To instill social and ethical values among the students.

Program specific objectives (PSOs):

Our students will be able to

PSO1: Design and develop civil engineering structures with software proficiency.

PSO2: Address & give engineering solutions for environmental challenges & sustainable development.

PSO3: Execute civil engineering projects as a skilled professionals utilizing enhanced Management techniques

Program Educational Objectives: (PEOs):

Our graduates will be able to

PEO1: Apply integrated knowledge and skills to solve complex civil engineering problems.

PEO2: Pursue entrepreneurship and innovation in civil engineering while upholding professional integrity, social responsibility, and ethical values.

PEO3: Excel in professional careers exhibiting leadership qualities.

EDITORIAL TEAM A.Y. 2023-2024



Dr. Aakanksha Ingle
Editor-in-Chief



Riya
Managing Editor



Niranjan Mhaske
Design Lead



Ajay Pillai
DesignCo-Lead



Vaibhavi Bokare
Content Writer



Atharva Kashid
Marketing Head



Ms. Shrawani Hande
Graphic Designer Head



Suyog Gawai
Associate Designer



Sahil Taur
Language Head



Kalpesh Sonawane
Photography Head



Khushi Khivansara



Harshal Thalle



Pooja Mane

Editorial Team Member

DEPARTMENT OF CIVIL

Engineering



TABLE OF CONTENTS

INTRODUCTION	1
MESSAGE FROM VICE PRESIDENT	3
MESSAGE FROM PRINCIPAL	4
MESSAGE FROM HOD	5
MESSAGE FROM EDITOR DESK	6
MESSAGE FROM FACULTY COORDINATOR	7
ABOUT THE DEPARTMENT	8
THE CESATEAM	9
THEME	11
BLOGS	12
POETRY	28
ACADEMIC ELITES	29
ENVIRONMENTAL CLUB ACTIVITIES	31
HAPPENINGS IN DEPARTMENT	33
ACHIVEMENTS	37
FACTULY INDUSTRIAL VISIT	40
SKETCHES	43
PHOTO CAPTURED	44
RIDDLE	47

TERRA NIRMAN

Building Foundations, Shaping Futures



The Department of Civil Engineering proudly presents the inaugural edition of its annual magazine, Terra Nirman - a platform that reflects our department's unwavering commitment to sustainability, innovation, and academic excellence. Rooted in the idea of "solid ground," Terra Nirman symbolizes the strong foundations on which we build not only structures, but also ideas, values, and futures. With the tagline "Building Foundations, Shaping Futures," this encapsulates our collective Foundations, magazine journey toward responsible engineering and sustainable development. This first volume offers an engaging glimpse into the vibrant life of our department - from academic milestones and student achievements to research innovations and community-driven initiatives. It highlights the creative spirit and technical prowess of our students and faculty through articles, technical reports, poems, illustrations, and reflections. The magazine also documents our various activities throughout the academic year, including workshops, expert sessions, site visits, competitions, and social outreach programs. Each section of this edition demonstrates how our department continues to grow while staying grounded in its commitment to sustainability, knowledge-sharing, and industry relevance.

As you explore Terra Nirman, we invite you to walk through the efforts, aspirations and accomplishments of our civil engineering community

A community that is not just constructing the world around us, but also shaping a more resilient and responsible tomorrow.

Welcome to Terra Nirman — where learning takes root legacies are built.

Happy Reading!



A Guiding Light: Message from our Vice President



At the outset, I heartily congratulate the Department of Civil Engineering for initiating a new concept in the form of theme based departmental magazine. The introduction of this magazine is the result of your confidence, creativity, and innovation.

The ADYPSOE has established itself as one of the leading self-financed institutes in Maharashtra. This has been primarily due to the large sign on the Teaching, Research & Administration. Speakers from industries, universities, research organizations, the corporate world, and thought leaders regularly visit ADYPSOE to interact with the students. In an era where environmental responsibility is no longer a choice but a necessity, Terra Nirman stands as a powerful example of how engineering education can merge innovation with ecological consciousness.

Through this project, we reaffirm our pledge to not only lay strong foundations in infrastructure, but also in values that shape a better, greener tomorrow. Let this be the beginning of many such endeavors where academic excellence meets real- world impact. As we all know, digital media has come up in a big way. It has opened vast vistas of new possibilities. I am glad to note that the team has made use of this development and harnessed it in a big way in the form of this magazine.

I invite all of you to come to join us in the initiative. I once again congratulate the Department & Editorial Team and hope this will prove to be a milestone in the digital journey of ADYPSOE as well as the Department of Civil Engineering.

**Dr. Kamaljeet Kaur Executive ,
Vice President- Ajeenkya D Y Patil Group**

Pursuing Excellence: A Vision from our Principal



Our college, Ajeenkya D Y Patil School of Engineering (ADYPSOE) has developed excellent infra-structural facilities with well-equipped laboratories and an enriched library, which allows the students to understand the recent trends of Engineering and Technology. Life is not a set of instructions but is a series of experiences and learning process, this is where ADYPSOE steps into by making a difference through our faculties by inculcating the right attitude and passion towards engineering, which goes beyond books and instructions.

At ADYPSOE, it is not just a formal place of education but a place to grow as an individual, it promotes all round development of the students by means of cultural events, communication, and personality development classes, extracurricular and sports activities, Internship* development and various other activities which ensures multifaceted development of students. We believe in developing versatility in the student's right from the beginning.

As a part of our agenda this magazine is being launched, which showcases the multifarious events and activities done by the students and teachers of Department of Civil Engineering I wish good luck to the editorial team and I congratulate our precious students and faculty for kick starting this academic year with a wide variety of events.

Dr. F.B.Sayyad , Principal
Ajeenkya DY Patil School of Engineering

A vision for Innovation and Growth: Thoughts from Our HOD



It is an honor and privilege to introduce Terra Nirman - a symbol of strong foundations where engineering excellence, innovation, and sustainability come together to shape a resilient future. In today's evolving world, the responsibility of civil engineers extends beyond constructing buildings and infrastructure. We are entrusted with the profound task of designing spaces that coexist harmoniously with nature while meeting the demands of modern society.

Terra Nirman embodies this vision, representing the spirit of building structures and systems that are robust, enduring, and environmentally responsible. As we move toward a future focused on sustainability and resilience, our students are encouraged to incorporate innovative and eco-conscious practices into every project they undertake.

Terra Nirman symbolizes the vital link between engineering knowledge and environmental stewardship. It reminds us that true innovation must be mindful, leaving a positive impact on the environment and on future generations. As future engineers, let us commit to being the custodians of this "firm ground," ensuring that our contributions strengthen both our communities and our planet.

I extend my heartfelt congratulations to all the contributors, editorial team members, and faculty mentors who have brought Terra Nirman to life. I am confident that the creativity, vision, and dedication showcased here will inspire many and pave the way for groundbreaking achievements in the years ahead.

Dr. Pallavi Kharat

**Head of the Department, Civil Engineering
Ajeenkya D Y Patil School of Engineering**

From Editors Desk: Shaping Stories, Defining Perspective



In today's evolving world, the responsibility of civil engineers extends beyond constructing buildings and infrastructure. We are entrusted with the profound task of designing spaces that coexist harmoniously with nature while meeting the demands of modern society.

Terra Nirman embodies this vision, representing the spirit of building structures and systems that are robust, enduring, and environmentally responsible. As we move toward a future focused on sustainability and resilience, our students are encouraged to incorporate innovative and eco-conscious practices into every project they undertake.

Whether it involves creating energy-efficient buildings, using sustainable materials, or designing infrastructure that adapts to a changing climate, every decision we make today shapes the world of tomorrow. Terra Nirman symbolizes the vital link between engineering knowledge and environmental stewardship. It reminds us that true innovation must be mindful, leaving a positive impact on the environment and on future generations.

As future engineers, let us commit to being the custodians of this "firm ground," ensuring that our contributions strengthen both our communities and our planet.

Warm regards,

Lt. Col. Sanjay Karodpati (Retd)

Editor-in-Chief

Engineering with Impact: Reflections from Faculty Coordinator



The field of civil engineering is no longer limited to building infrastructure — it has become a platform for innovation, responsibility, and sustainability. As engineers of the future, our students have the unique opportunity to shape the world in ways that balance human advancement with environmental consciousness.

Terra Nirman serves as a powerful expression of this balance. It highlights the importance of designing not just for function, but for longevity, adaptability, and ecological harmony. Through this initiative we aim to foster a mindset where sustainability is not an afterthought but a foundation of every engineering decision.

Our learners are encouraged to approach their work with creativity and awareness — integrating green technologies, sustainable practices and climate-resilient designs into their projects. Each thoughtful idea and action contributes to a stronger and more responsible future. I extend my heartfelt thanks for the opportunity to serve as the Faculty Coordinator. It has been a rewarding experience to witness the energy and vision our students bring to this platform.

With Regards,

Dr. Aakanksha Ingle
Faculty Coordinator

ABOUT THE DEPARTMENT

An affectionate welcome to the Civil Engineering discipline. The Department of Civil Engineering strives for excellence in teaching and learning along with professional development. The department has state-of-art laboratories which are NABL accredited with 150 tests. Ours is the first private engineering college in Maharashtra for getting NABL accreditation.

The department with its experienced faculties offer practice based education with latest techniques thereby preparing our students for a successful and rewarding career. The department maintains its strong links with the construction industry by engaging in consultancy activities. The students here are encouraged to engage extra-curricular and co-curricular activities which are essential for personality development, nurturing of team spirit and development of organizational skills.

The field of Civil Engineering is very broad, covering many areas such as planning, design and construction of buildings, highways and bridges, irrigation schemes, water supply and sewerage schemes, powerhouses and transmission systems, tunnels and underground structures, etc. It is our aim to provide you with the necessary education to face these challenges with confidence

Civil Engineering Students Associations (CESA)



Committee Members



President
Mr. Harsh Mahale



Vice President
Mr. Jayesh Dhale



Vice President
Mr. Rushikesh Shitole



Treasurer Mr.
Mukund Jadhav





Treasurer
Mr Vedant Rasane



Event head
Mr. Prasanna Deore



Event Head
Mr. Omkar Panchal



Committee Member
Mr. Atharva Kashid



Committee Member
Mr. Gaurav Garde



Committee Member
Mr. Samarth Galande



Committee Member
Mr. Ritish Mokul



Committee Member
Mr. Suyog Gawali



Committee Member
Ms. Vishakha Gawali



Committee Member
Ms. Janvi Raut



Committee Member
Mr. Rohan Turde



Committee Member
Ms. Sakshi Gawali

Theme about the Magazine

Terra Nirman is a vibrant platform that brings together ideas,

The inaugural edition of Terra Nirman—meaning “solid ground”—celebrates innovations and initiatives centered on sustainability, environmental consciousness, and responsible engineering.

Revolving around the theme "*Sustaining the Environment for Future Generations*," this edition emphasizes the urgent need to harmonize infrastructural development with ecological balance. In a world marked by rapid urbanization and climate change, civil engineering holds immense responsibility in shaping infrastructure that supports both societal progress and environmental integrity. From eco-friendly construction techniques and green building concepts to sustainable water management and low-impact urban planning, civil engineers play a pivotal role in reducing environmental footprints. By embedding sustainability at every stage—from design to execution—we can build a resilient future rooted in environmental awareness and ethical practices. This magazine aims to raise awareness, ignite meaningful dialogue, and inspire action toward a future where growth and green values coexist. It proudly features the enthusiastic contributions of students and faculty through technical articles, creative sketches, poems, and environmentally focused content, along with highlights from workshops, expert talks, site competitions, and awareness campaigns—each reinforcing the department's unwavering commitment to sustainable development.

Terra Nirman is more than just a magazine—it is a collective step toward an environmentally responsible and sustainable future, driven by the passion and vision of our academic community

SONAM WANGCHUK

Architect of Innovation in India's Himalayas



Dr. Aakanksha Ingle

In the high-altitude deserts of Ladakh, where the harsh climate and rugged terrain pose daily challenges, Sonam Wangchuk has emerged as a beacon of innovation and sustainability. An engineer, educator, and environmentalist, Wangchuk's pioneering work has transformed his native region and gained international recognition.

In 1988, recognizing the disconnect between conventional education and the unique needs of Ladakhi students, he co-founded the Students' Educational and Cultural Movement of Ladakh (SECMOL), an alternative school emphasizing experiential learning rooted in local culture and environment. The SECMOL campus itself operates entirely on solar energy and features passive solar mud buildings that withstand extreme temperatures, showcasing sustainable design in action. To address Ladakh's springtime water scarcity, Wangchuk developed the Ice Stupa—conical ice structures created by spraying water into sub-zero air, storing winter water that melts gradually in spring to support agriculture.

The first prototype in 2013 stored 150,000 liters of water and lasted until May, despite temperatures rising above 20°C. His innovations extend to national defense as well; he designed solar-heated, portable military tents that maintain interior warmth even at -14°C, offering eco-friendly shelter for soldiers in regions like Siachen and Galwan Valley. Beyond his technical innovations, Wangchuk is also a strong advocate for environmental conservation and regional autonomy.



In 2024, he undertook an 18-day hunger strike to highlight Ladakh's ecological vulnerabilities and the need for constitutional protections for its tribal communities. His groundbreaking contributions have earned him global accolades including the Ramon Magsaysay Award, Rolex Awards for Enterprise, and the Ashoka Fellowship. Wangchuk's architectural innovations, particularly in high-altitude and ecologically sensitive areas, emphasize the use of passive solar mud buildings that blend traditional wisdom with modern science. These structures minimize reliance on fossil fuels, reduce carbon emissions, and engage local communities—promoting both sustainability and cultural preservation. His efforts were globally recognized with the prestigious International Terra Award in 2016 for the best earth building. Sonam Wangchuk's holistic approach—integrating education, innovation, and environmental stewardship—exemplifies how localized, thoughtful solutions can address global challenges, inspiring communities far beyond the Himalayas.

Getting a Consent to Operate (CTO) from Environmental Authorities

Prof. Gaurav Vispute

The Consent to Operate (CTO) is a crucial environmental clearance issued by regulatory bodies like the State Pollution Control Boards (SPCBs), allowing industries and facilities to legally commence operations after meeting prescribed environmental standards. However, many businesses—especially Small and Medium Enterprises (SMEs)—face significant hurdles in obtaining this approval. While the CTO is vital for environmental protection, the approval process often lacks transparency, consistency, and user- friendliness. Simplifying procedures, offering technical guidance, and using digital platforms for application and monitoring can significantly improve compliance and reduce delays.

Key Challenges Faced by Industries:

Complex and Lengthy Procedures: The CTO application involves exhaustive paperwork, technical documentation, and adherence to multiple environmental norms. The bureaucratic process is often unclear, causing delays and cost overruns.

Lack of Awareness and Technical Expertise: Smaller businesses often lack knowledge of environmental regulations and the expertise to meet them. This leads to incomplete or incorrect applications that slow down approvals. **Inconsistent Interpretation of Regulations:** Environmental rules may vary in implementation across states or officials, leading to confusion, repeated inspections, or revisions.

Corruption and Red Tape: Non-transparent systems and unofficial demands can hinder CTO approvals, especially where accountability is weak. **Stringent Environmental Norms:** Requirements like Zero Liquid Discharge (ZLD) or specific air quality standards, while essential, can be financially and technically demanding—particularly for older or smaller units.

Renewal and Compliance Monitoring: Even after receiving the CTO, businesses must regularly renew it and undergo inspections. Shifting standards and frequent audits can make continuous compliance a challenge.

Role of State Pollution Control Boards (SPCBs):

SPCBs are key pillars of environmental governance at the state level. They were initially established under the Water (Prevention and Control of Pollution) Act, 1974, and later empowered by the Air (Prevention and Control of Pollution) Act, 1981. Their role includes enforcing central environmental laws, granting CTOs, conducting inspections, and ensuring that industries function without causing environmental harm. Their effectiveness is critical in balancing industrial growth with ecological protection.

Many industries, especially small and medium enterprises, struggle with obtaining the Consent to Operate (CTO) due to several systemic challenges. A key issue is the lack of in-house technical knowledge, which leads to incomplete or incorrect submissions, ultimately prolonging the approval process. Additionally, there is the problem of inconsistent interpretation of regulations—environmental norms can be open to interpretation, and their implementation often varies between regions and officials. This inconsistency results in confusion, repeated revisions, and delayed approvals. Corruption and bureaucratic red tape further complicate the process in some cases, where non-transparent systems and unofficial payments act as barriers to obtaining a CTO, especially in areas with weak oversight. Moreover, stringent environmental norms, such as Zero Liquid Discharge (ZLD) requirements or specific air quality standards, though essential for protection, can be financially and technically demanding—particularly for older or smaller units. Even after securing the CTO, businesses must deal with renewal and compliance monitoring. Regular renewals, frequent inspections, and shifting standards require continuous investment and oversight to maintain compliance, which is often burdensome for many firms.

Role of State Pollution Control Boards (SPCBs):

State Pollution Control Boards play a pivotal role in environmental governance at the state level. Formed under the Water (Prevention and Control of Pollution) Act, 1974, and later empowered by the Air (Prevention and Control of Pollution) Act, 1981, SPCBs are tasked with enforcing central environmental laws. Their responsibilities include granting CTOs, ensuring compliance, conducting inspections, and making sure that industrial activities do not negatively impact the environment. Their role is central to maintaining a balance between industrial development and ecological sustainability.

The State Pollution Control Boards (SPCBs) play a critical role in environmental governance at the state level. One of their core responsibilities is the issuance of environmental clearances, particularly two key consents to industries: Consent to Establish (CTE), which is required before setting up a project, and Consent to Operate (CTO), which must be obtained before starting operations. These consents ensure that proposed industrial units meet pollution control standards.

SPCBs are also tasked with monitoring and compliance. They conduct inspections, collect environmental samples, and analyze emissions and effluents to verify that industries are adhering to the required air, water, and hazardous waste norms. In case of violations, SPCBs are empowered to enforce legal actions, such as issuing notices and directives, imposing penalties, initiating legal proceedings, and even ordering the closure of polluting units.

Another important function of SPCBs is their role in policy implementation and advising. They serve as technical advisors to state governments on environmental matters and help in framing policies and standards in alignment with central regulations. Additionally, SPCBs work on public awareness and education, promoting cleaner technologies and encouraging citizens' participation in environmental protection.

SPCBs are also involved in data collection and reporting, where they collect pollution-related data and publish reports that guide public understanding and policymaking. These reports often include air and water quality indices for various regions.

Documents Required for Consent to Operate (CTO):

To obtain a CTO, industries must typically submit the following documents:

1. Duly filled CTO application form (as per SPCB portal format such as OCMMS for CPCB/SPCBs).
2. Copy of Consent to Establish (CTE), if previously granted.
3. Detailed Project Report (DPR) including process flow, raw materials, energy and water usage, and pollution control methods.
4. Layout or Plant Site Plan indicating locations of control devices, drainage paths, and greenbelts.
5. Environmental Management Plan (EMP) detailing pollution control and waste management measures.
6. Proof of land ownership or lease agreement.
7. Water and effluent balance chart showing water intake, usage, and wastewater treatment.
8. Technical details of installed pollution control equipment like ETP, STP, APCDs, scrubbers, chimneys, etc.
9. Solid/Hazardous waste management plan covering storage, transport, and disposal.

10. Air and water analysis reports from NABL-accredited labs (if applicable).
11. Authorization under Hazardous Waste Rules (if required).
12. Copy of Environmental Clearance (EC) if the project falls under EIA notification.
13. Industry registration or trade license/MSME certificate.
14. Agreement with a common treatment facility (for industries connected to CETPs or TSDFs).
15. Fee receipt or challan showing payment of CTO application fee.



Optional/Additional State-Specific Documents:

- Fire NOC
- CGWA permission (for groundwater usage)
- Forest NOC (if located near forest areas)
- Biomedical Waste Authorization (for healthcare units)

Higher Education in America: Unlocking Global Opportunities

**Mr. Sanket Ghadge
(Alumni)**

Why Study in the United States?

The United States remains a top choice for international students aspiring to pursue higher education. With globally renowned universities, diverse academic programs, and a culture that fosters innovation and critical thinking, the U.S. offers a dynamic environment for both academic and personal growth.

A Global Hub of Academic Excellence

- Home to prestigious institutions like Harvard, MIT, and Stanford.
- Known for leadership in research, innovation, and academic rigor.
- Offers the opportunity to learn from world-renowned scholars and industry experts.

Diverse and Flexible Academic Programs

- The American education system encourages exploration before specialization.
- Students can tailor their studies to match personal interests and career goals.
- Wide variety of programs in:
 - Engineering
 - Liberal Arts
 - Business
 - Sciences
- Strong focus on interdisciplinary learning.

Innovation and Research Opportunities

- Universities provide access to:
 - State-of-the-art laboratories
 - Research funding and grants
 - Real-world project collaborations
- Both undergraduate and graduate students are encouraged to engage in hands-on research.
- Ideal for students interested in science, technology, and academia.

A Rich Cultural Mosaic

- Students become part of a diverse, inclusive, and vibrant community.
- Classrooms benefit from cross-cultural perspectives.
- Prepares graduates to excel in international and multicultural work environments.
- Strong ties between universities and industries ensure that students have
 - access to internships, career fairs, and expansive alumni networks. A degree
 - from an American university is highly respected by employers worldwide,
 - symbolizing excellence, adaptability, and a strong work ethic.
- Personal Growth and Independence
 - Living and studying abroad fosters resilience, independence, and confidence.
- Students learn critical life skills such as managing finances, adapting to new
 - cultures, and navigating complex academic systems—experiences that
 - contribute significantly to their overall development.

My Journey from Pune to Pittsburgh

By Sanket – Graduate of Ajeenkya D.Y. Patil
School of Engineering

The Crossroads After Graduation

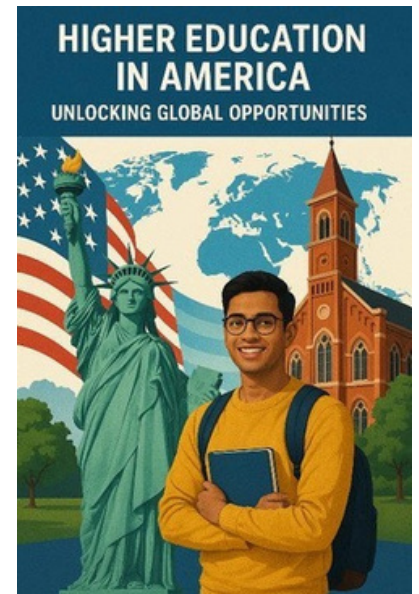
- After completing my engineering degree, I was unsure whether to:
 - Start working
 - Prepare for competitive exams
 - Pursue higher studies
- I chose to follow my dream of continuing education in the United States.

Planning the Move

- Spent countless hours:
 - Attending webinars
 - Browsing university websites
- Shortlisted universities based on my interest areas.
- Took guidance from an education consultancy for:
 - Document collection
 - Application process
 - Visa filing

Admission and First Impressions

- Got accepted to Pittsburgh State University for a Master's in Technology (Construction Management).
- First impressions of the campus:
 - Located in a quaint college town on the Kansas-Missouri border
 - Sprawling 400-acre campus
 - Facilities included:
 - Kansas Technology Centre
 - Sports complexes
 - Library
 - Student center
 - Dedicated international offices hours



Hands-On Learning & Real Projects

- Most impactful course: Virtual Design in Construction
 - Learned a new technology every week:
 - 3D Printing
 - Virtual Reality
 - Augmented Reality
 - Digital Twins
 - Applied tools to real-world scenarios
- Memorable Project:
 - Client: Layette Bank
 - Task: Present a renovation proposal using Augmented Reality
 - Experience:
 - Picked up early morning by my professor
 - Presented the augmented model to the bank's staff
 - Received appreciation and constructive feedback from the manager
 - Outcome:
 - Real-world pressure
 - Hands-on client interaction
 - Boosted confidence and practical knowledge

Conclusion

- Pursuing education in the U.S. is not just academic—it's an investment in your future.
- The journey offers:
 - Global exposure
 - Industry-relevant learning
 - Real-world problem-solving
 - Valuable professional networks
- For those ready to challenge themselves and grow, American education delivers a truly transformative experience.

GREEN INFRASTRUCTURE IN ACTION

Vaibhavi Bokare (SE student)

Green infrastructure in civil engineering focuses on integrating natural systems into urban environments to store and enhance urban ecosystems. This approach utilizes natural processes like vegetation, soil, and water to manage stormwater, improve air and water quality, enhance biodiversity, and mitigate the urban heat island effect, ultimately creating more sustainable and resilient cities. Key aspects of green infrastructure in civil engineering for urban ecosystem restoration:

- **Stormwater Management:**

Green infrastructure elements like rain gardens, bioswales, and permeable pavements help manage stormwater runoff, reducing flooding, improving water quality by filtering pollutants, and replenishing groundwater.



- **Air Quality Improvement:**

Trees and vegetation in green infrastructure act as natural air filters, absorbing pollutants and particulate matter, thus improving air quality and mitigating the urban heat island effect.

- **Biodiversity Enhancement:**

Green spaces like parks, green roofs, and urban forests provide habitats for various species, supporting biodiversity and promoting ecological balance within the urban environment.

- **Water Quality Improvement:**

Wetlands and riparian buffers within green infrastructure help filter pollutants and improve water quality in rivers and streams, contributing to a healthier urban water cycle.

- **Urban forests and parks:**

Provides shade, reduces the urban heat island effect, and offers recreational opportunities.

- Bioswales and rain gardens:
Manage stormwater runoff, filter pollutants, and enhance groundwater recharge.
- Wetlands and riparian buffers:
Improve water quality, provide wildlife habitat, and help control erosion.
- Green roofs and walls:
Provide insulation, reduce stormwater runoff, and enhance aesthetics.
- Policy and Planning:
Successful implementation of green infrastructure requires supportive policies, integrated planning, and collaboration among stakeholders.



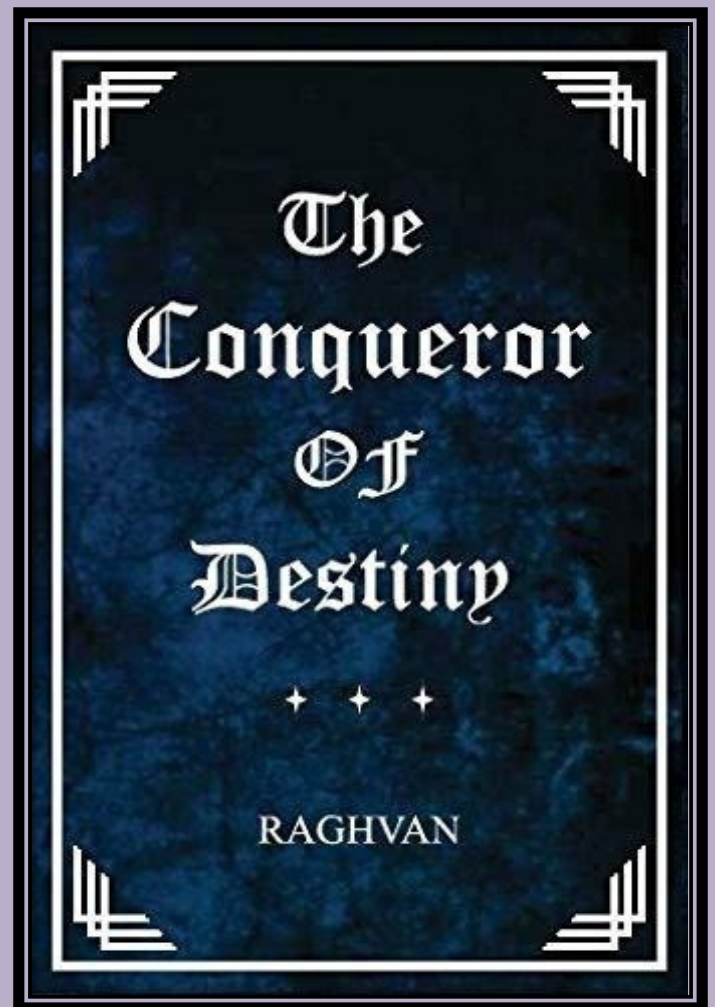
The Conqueror of Destiny (Book Review)

By: Atharva Sanjay Kashid (TE Student)

Reading the Conqueror of Destiny by Raghavan was a very refreshing and emotional experience for me. This book is not like the usual fictional stories it feels real, relatable, and very close to the life of an ordinary engineering student Raghavan Koli has done a great job of showing the true struggles and emotions of students especially those who come from simple backgrounds and have big dreams The story revolves around engineering students and how they deal with the challenges of life, studies, expectations, and even their own doubts What I liked the most is that the book doesn't try to make everything look perfect. It shows the raw reality of student life the pressure to succeed, the fear of failure, the importance of friendships, and the deep bond with family all these emotions are captured in a very simple and understandable way.

The language used in the book is also very easy to follow, which made it enjoyable to read I never felt bored or lost while reading it. The way the author has described the characters and their journey made me feel like I was living their life. Many times I could see myself in those situations.

As a student myself, I could connect with many of the feelings and thoughts shared by the characters One thing I found very inspiring was the message of never giving up, no matter how difficult things get The book reminds us that success is not always about talent, but about hard work, dedication, and belief in oneself It also shows the importance of guidance whether it's from parents, friends, or teachers There is a strong emotional touch in the story that stays with you even after you finish the book.



There are also moments of motivation and practical advice hidden in the story. It teaches us that even small steps and efforts can lead to big achievements. The journey of the characters proves that destiny can be changed if we have the courage to fight for our dreams.

In short, *The Conqueror of Destiny* is a must-read for students, especially those who are facing pressure or feeling lost in their journey. It not only entertains but also motivates and gives hope.

Thank you



"इंजी नयर और पया वरण क पुकारे"

बढ़ती धूप घटतीछाँव,
प्रकृ त नेद हैअब आवाज़ क ठांव।
कहती है- "रुको ज़रा, सोचो अब,
क्या यही वकास है? या कोई भ्रम?"

इमारत तो बन गई, पर ह रयाली कहाँ
सूख रही ह न दयाँ, येकैसा दद यहाँ
इंजी नयर हो तुम, समस्या का हल
अब तुम ही बदलो आनेवाला कल।

शहर ऊँचा है, पर पेड़ नह ह ,
न दय म पानी नह , येसच सही है।
तुम हो बु मान, तुम हो वान काान,
अब तुम ही बचाओ इस धरती क शान।

बनाओ पुल, पर बहनेदो धार,
डज़ाइन हो ऐसा - न हो प्रकृ त पर वार।
स्माट सट म हो ह रयाली का मान,
सौर ऊजा सेसज घर-आँगन और प्रांगण।

रीसायकल करो, वेस्ट को समझो,
टकाऊ नमाणम टेक्नोलॉजी गढ़ो।
ीन ब ग, ईट भी अब बोल ,
"हम ह नवाचार, जो पया वरण सेडोले।

रोबोट, डेटा, सॉफ्टवेयर भी साथ आए,
जब हर इंजी नयर प्रकृ त के गीत गाए।
वकास हो पर संतुलन बना रहे,
धरती मुस्काए, और जीवन सहे।

-By Taher Salujii

Academic Elites

SUBJECT WISE AWARD



SHUBHAM VILAS PAWAR
(WATER ENGINEERING)
RISHI BHAGIRATHA AWARD



SHRUTI SHRIKRISHNA WAGHMARE
(SOIL MECHANICS)
KERLTERZAGHI'SAWARD



KHUSHI KHIVANSARA
(STRUCTURAL ENGINEERING)

ROMA AGRAWAL AWARD, MOKSHAGUNDAM VISVESVARAYA AWARD, LEONARDO DA VINCI'S E AWARD, HIROJI INDULKAR AWARD



TEJASWINI TONGIRE
(1st Girl Topper from S.E.)
SHAKUNTALA BHAGAT AWARD

Environmental Club Activities

Environmental Club Installs Water-Saving Faucets to Promote Sustainability Pimpri Chinchwad, Maharashtra – March 9, 2023 In an inspiring effort to conserve water and promote sustainable living, the Environmental Club of Ajeenkya DY Patil School of Engineering took the initiative to install water-saving faucets in residential areas like Installation of Aerator in Utopia Society. This campaign, which took place in Millennium Divine, Pimpri-Chinchwad, aimed at reducing water wastage by implementing efficient tap aerators and leak-proof faucet systems.

The Need for Water Conservation Water scarcity is a pressing global issue, and the uncontrolled flow of water through conventional taps significantly contributes to unnecessary waste. The students, recognizing this challenge, actively engaged in fixing leaks and installing water-efficient faucets to ensure optimal water usage.

Implementation of the Initiative Community Engagement and Impact

The activity involved:

1. Inspection of existing water taps for leaks and inefficiencies.
2. Installation of advanced water-saving nozzles to regulate flow and prevent wastage.
3. Educating residents on the importance of water conservation and efficient household water use.

Through technical expertise and teamwork, the students successfully enhanced of multiple homes and public washrooms, ensuring the water efficiency sustainable water management.

The initiative received positive responses from residents, who expressed their appreciation for the club's efforts in addressing local water concerns. Apartment owners and society members actively engaged with the students, learning practical methods to reduce water wastage in their daily lives. The Environmental Club hopes to expand this project to more communities, inspiring individuals to take small yet impactful steps toward sustainability and environmental responsibility.

How do Tap Aerators Work?

Tap aerators have many small holes in the nozzle. This separates the water into different streams which means air can mix with the water, increasing the pressure and reducing the amount of water you need to use. The nozzle simply directs these many streams all in the same direction, meaning you actually end up with a stronger flow -for less water! That's some clever science for you!

for. Example-Tap aerators can reduce the flow of water by up to 10 liters per minute, taking the flow from 18 liters per minute to just 8lit.

Aerators are used regularly

in kitchen and bathroom taps, but they can also be used in shower heads, hot tubs, hose pipes and pond pumps.

The Benefits of Tap Aerators:

- 1) Decreased Faucet Noise. If you have noisy faucets, installing an aerator can reduce the disruptive sound.
- 2) Lower Water Bills.
- 3) High Return on Investment.
- 4) Improved Water Pressure.
- 5) Increased Filtration.
- 6) Minimized Splashing.
- 7) More Consistent Water Pressure.
- 8) Reduced Overall Water

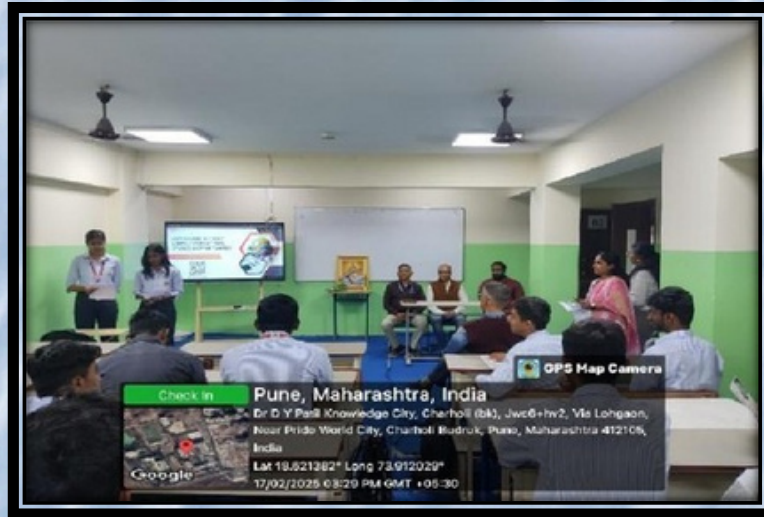


Future Plans:

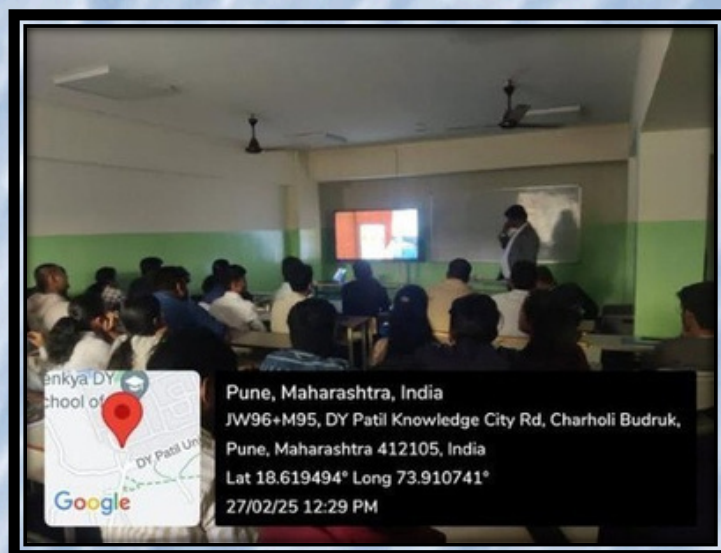
Theclubplanstoconduct awareness programs, workshops, and further installation drives to reinforce the importance of water conservation in urban areas.

Happenings in the Department:

Seminar conducted on Future in Civil Engineering



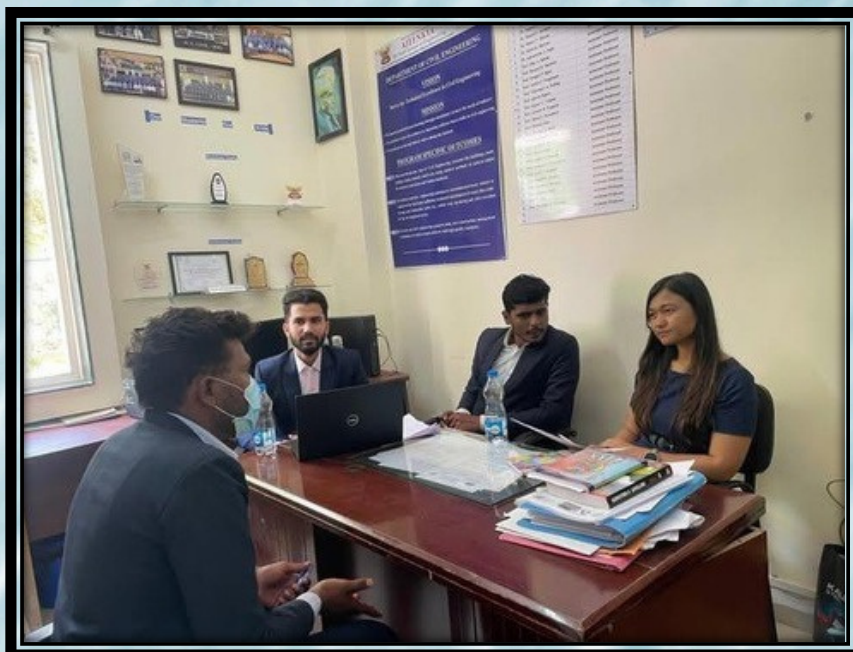
The Department of Civil Engineering conducted a session on BIM 5D Carnival on February 27, 2025, from 11:00 AM to 12:30 PM. The session was delivered by Mr. Kaustub Panse, Managing Director of DESIGN STUDIO.



"Parent-Teacher Meeting" on 3rd March 2025: Strengthening the Path Forward in Civil Engineering Education



Placement Drive conducted on 7th March 2025.



A session on BIM 5D Carnival on February 27, 2025, The session was delivered by Mr. Kaustub Panse, Managing Director of DESIGN STUDIO.



Students from the Civil Engineering Department have secured placements through an internship-cum-PPO opportunity via a campus drive conducted by UNCON PT Structural System Private Limited.



"Empowerment through quality technical education"

AJEENKYA

DY Patil School of Engineering

Approved by AICTE, Recognized by Govt. of Maharashtra, Affiliated to MSBTE Mumbai, DTE Code 6732
Charholi (Bk.), Via Lohegaon, Pune



World Institutional RANKING
Ranked No. 1 for Maharashtra

CONGRATULATIONS

CIVIL DEPARTMENT 2025 BATCH

For getting placed in
UNCON PT Structural System Pvt. Ltd.



Nandani Krunal Sonawane



Omkar Dilip Shrivastava



Vishal Kailash Patole



Aniket Shantanu More



Rushabh Waghmare



Tanvi Om Pansare



Tejraj Prakash Kadam



Rajesh Khedkar



Tishit Rishabh Jeyaraj



Omkar Anant Patil



Umesh Ravindra More



Omkar Anand Suresh



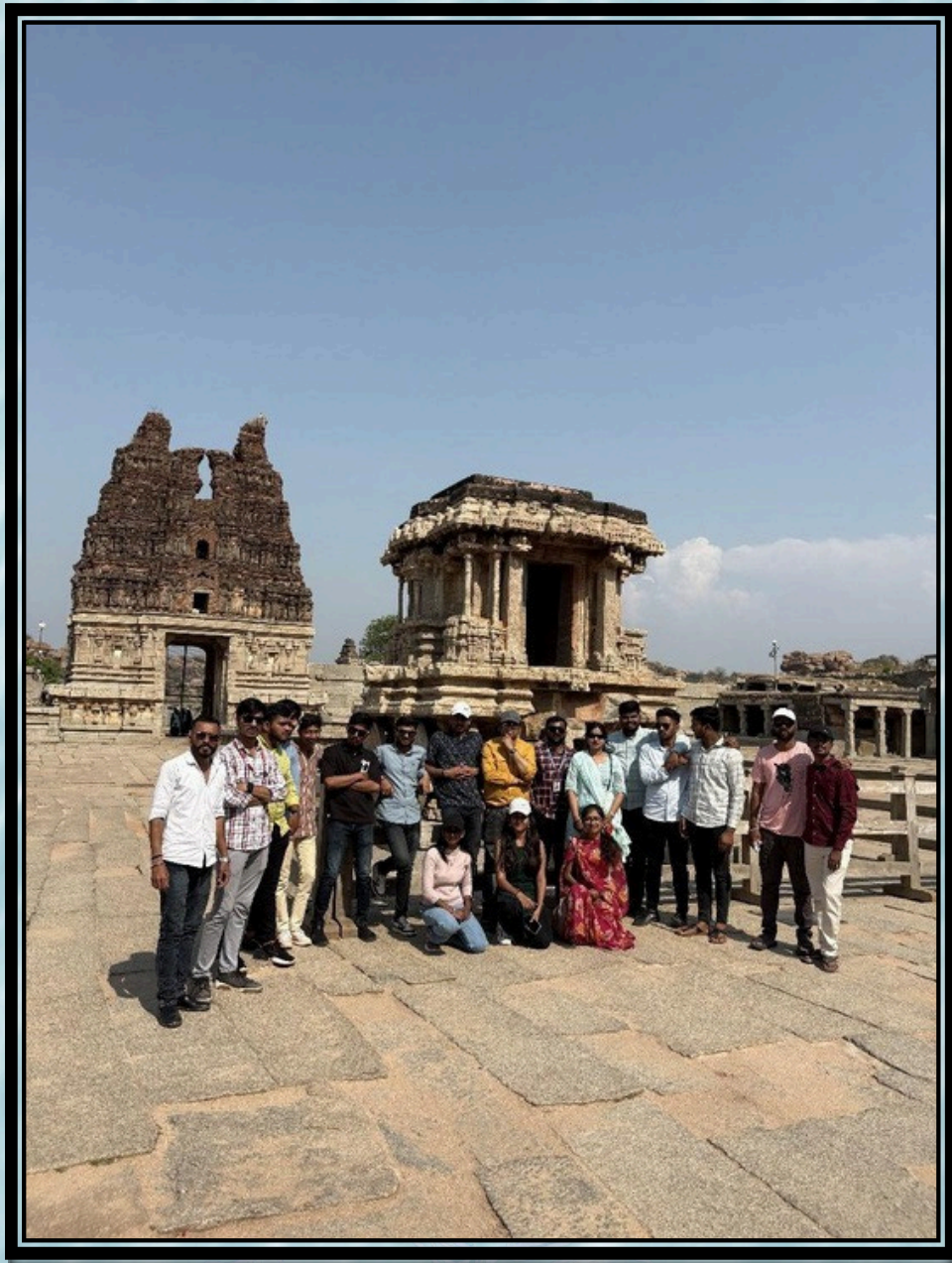
Mahesh Mohan Kulkarni



Dikshant Chakrabarty

Website : www.adypsoe.in Email : adypsoepune@gmail.com

India's rich architectural legacy, showcasing ancient engineering, rock-cut artistry, and cultural significance. Preserving such monuments connects us to history and inspires future sustainable design approaches.



Achievements

The student of third year civil engineering 'Sahi Taur' received first prize for 'Rangoli Making' in "Eternity 2025" organized by our institute.



An Inter-College tournament was organized by Savitribai Phule Pune University.

Sport Name - Chess

Students Name: Atharv Deshpande - 7th place (Reserved) Civil Engineering Department.



Event: NSS SPPU Special Camp 17 days camp from Pune to Pandharpur walking Palki Sohala. Organized by: NSS SPPU



Mr. Sahil Taur won first prize for State level speech competition.

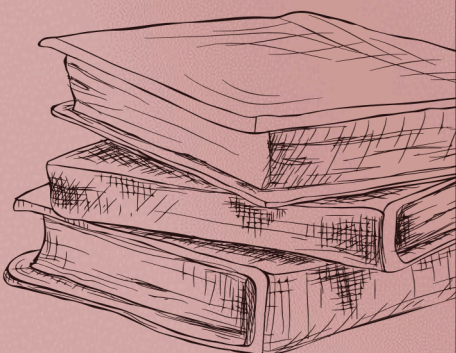


Dr. Aakanksha Ingle, presented research paper at the prestigious ASCE International Conference on Challenges and Innovations for Sustainable Smart Cities (CISSC) 2025 at Chandigarh. The conference provided a fantastic platform to discuss innovations in sustainable smart cities with leading experts



Prof. Ashish Waghmare publishes a new book on Intellectual Property and Entrepreneurship!

This comprehensive guide explores how IP fuels innovation and empowers entrepreneurial success.

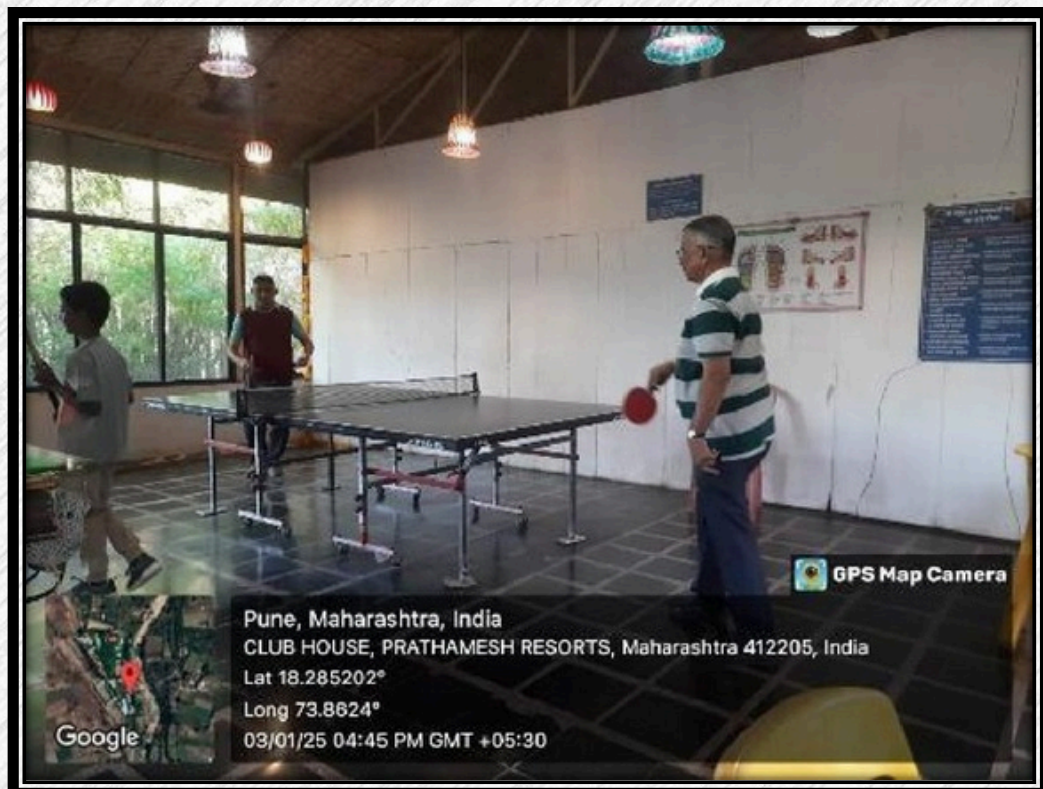


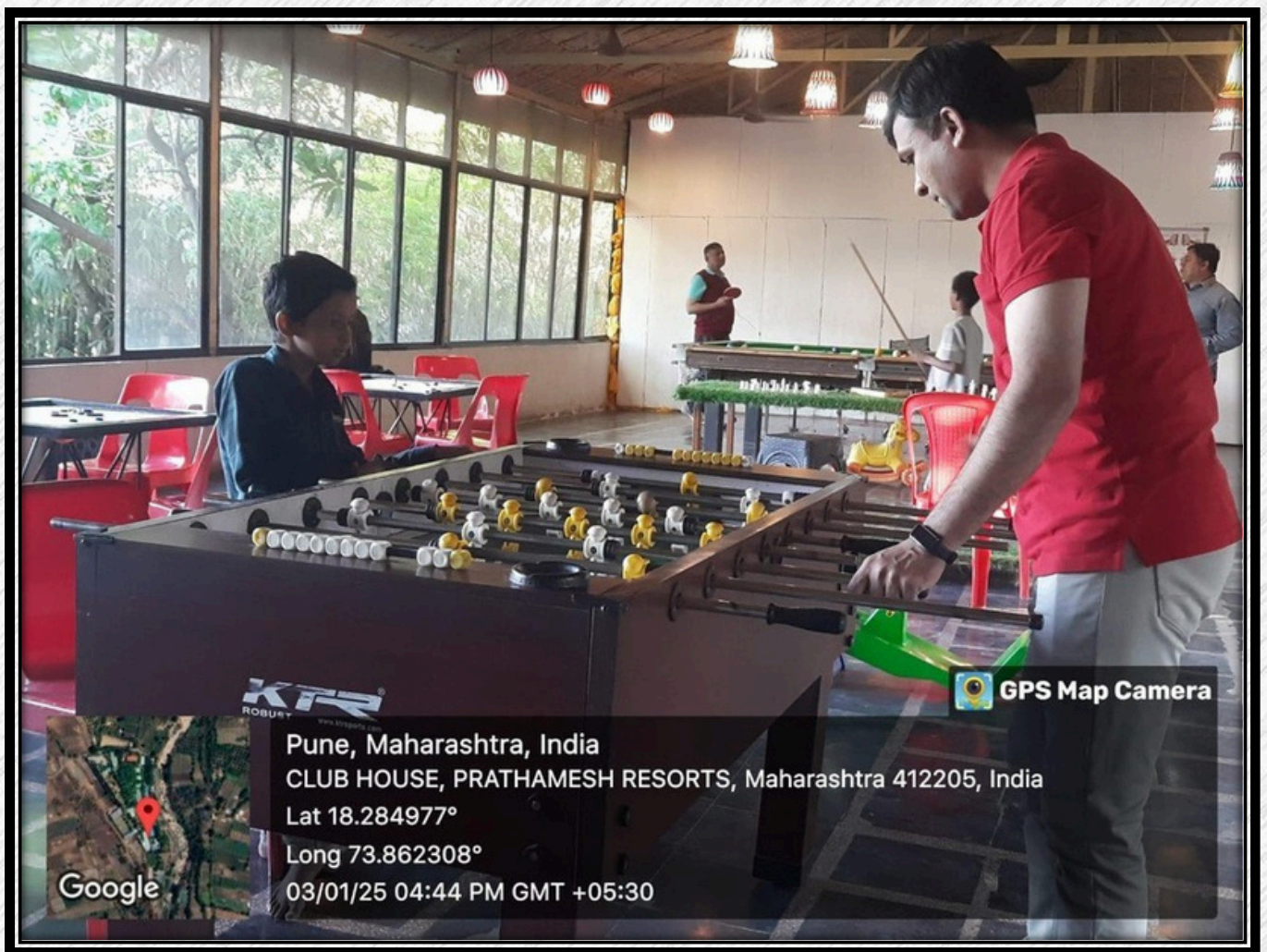
Faculty Industrial Visit

On-site observation and analysis of Geo synthetic materials used for soil stabilization and reinforcement in modern construction.



Together We Rise: Faculty Outbound Day





Sketches



Save Mother Earth
By Vaibhavi Bokare SE A

Photographs captured



As part of the educational tour to Hampi, students visited the Tungabhadra Dam, Badami Caves (6th–7th century), and Vijay Rath. These heritage structures

Captured by: Dinesh Nagare (This image is featured on the Indian ₹50 note, symbolizing India's rich cultural heritage and historical landmarks.)



Captured by Kalpesh SE Student (A tranquil sunset mirrored in still waters—nature's symmetry in its most elegant form.)



Captured by: Kaustub Gaikwad SE Student (Built in the mid-16th century, this tomb is a stunning example of early Mughal architecture)



Riddle

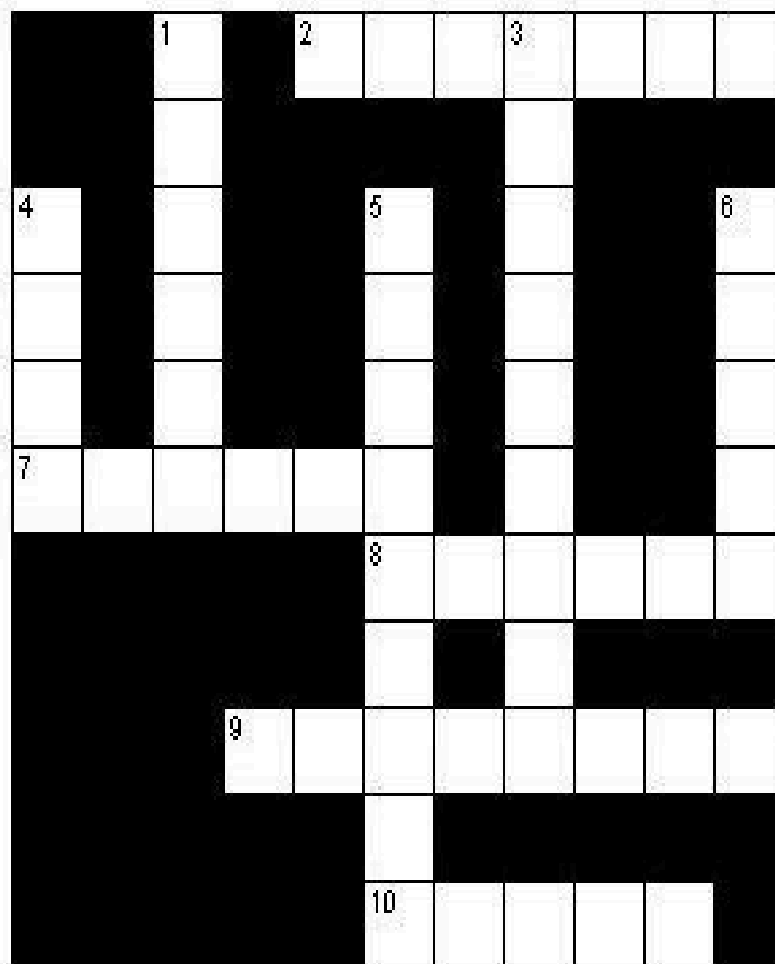
What asks no questions but
must be answered?

ENOHP :REWSNA

What can you catch but not
throw?

DLOC A :REWSNA





Clues - Jobs

Across

2 Educator

7 Grower

8 Always drawing

9 You may give her a tip

10 Helps if you're sick

Down

1 Healer

3 Builder

4 Cook with a big hat

5 Takes care of the books

6 His head is in the clouds



Civil engineering

R W S P L Q W R Z O H C S B J W I H N Z D M I R
 R R W F N G O D Y E V R U S X U A X Q X I R S W
 C A H N G T G P N R L D V H G Z S N F Z D E F C
 A H Y Y C Y H N Z R S W D K R Z V L B X I H K M
 V J T E S A L A I Q H R E T E M O N I L C N I P
 U N S P S L R P V D K P A E U Q R O T S B G S L
 T S E E H W N W U P L W Y B C E R H H E D T S Z
 I R Z W T T C I K S L O L W N W E O V N R E G F
 L F K P T D I F X F Z A M N M J V V S U E G A N
 Z X E C A O Z O N W Q E M Q G S E B C N S V A X
 U Y D R W B N F Q K W O I H L U L T S Z N Y Z N
 Q L V Q U K Z I P U L L E Y W G U S D I E M T T
 R I K O Q S O N A Q U Y K O D R M V C E C N B C
 M O D E L M S A Y N H W D K E N Z A M R I J M Q
 F N H Z D Y C E J L J Q F E E L N I D R L F A M
 J O Y Y N E S U R Y M S H C R X V R P B O G G N
 F I F W D E G E V P O P T I C S Z E U U P E Y M
 W S K I H R Y P F V C G O X Q M U M Q H O T I Q
 O N S Q L L A I W G G W U W X L D N L M L K H B
 E E Q X V G O U G A N S L H B H G C E G L H B X
 G T T Y Q P A E L T M Q A D A Q G T I D F E N G
 Z L W H Y L P K I I U N K X B P R R N F F X M R
 G Z E P T R R V P X C P I P R Y M S N H O T Y V
 R M Z X D P V G U Y M S K O I R G J V A E U V B

Inclinator
 structure
 Molding
 sector
 model

hydraulics
 Geometry
 Tension
 Survey
 Phase

blueprint
 Pressure
 Optics
 Torque

Newtonian
 license
 Pulley
 Lever

GLOBAL WARMING



3R

Reuse
Reduce
Recycle

