



05/09/2025

ASCE INSIGHTS

"Without Sight there is no Insight"

ASCE CET STUDENT CHAPTER

Monthly Newsletter



September Edition



ASCE CET Student Chapter wishes you and your loved ones a joyful and prosperous Onam! Just like every Pookkalam is a perfect blend of colors and symmetry, may this Onam bring balance, harmony, and strength to your life.

May this season of blooms and togetherness fill your hearts with happiness, and new beginnings.

Let's celebrate tradition with unity and the spirit of engineering minds coming together.

Happy Onam! 🎉



Book Review – History of Strength of Materials by S.P. Timoshenko

This book gives a detailed account of how the science of strength of materials evolved from the 17th to the 20th century. It covers the pioneering work of Galileo on beam behavior, Hooke's law of elasticity, and Euler's theory of column buckling. The contributions of Coulomb on shear strength, Navier and Cauchy on stress analysis, and Saint-Venant on strain energy are explained with context. Timoshenko also discusses the development of plasticity, fatigue studies, and experimental methods that shaped modern structural analysis. Each chapter highlights the historical background, challenges faced, and the gradual shift from empirical observations to mathematical formulations.

The book is not just historical but also technical, making it highly relevant for civil and mechanical engineers who wish to understand the foundation of today's design codes and structural theories. By linking scientific progress with engineering application, it serves as both a reference and an inspiration for learners of strength of materials.

CONGRATULATIONS TO THE NEW PANEL OF ASCE INDIA SOUTHERN SECTION

The ASCE CET Student Chapter is delighted to share that Dr. Kishor P, Dr. Elson John, and Dr. Abhijith S have been elected as the President, Secretary, and Treasurer of the ASCE India Section – Southern Region for the term 2025–2027.

We feel especially honored as our Practitioner Advisors, Dr. Kishor P and Dr. Abhijith S, have been entrusted with such prestigious responsibilities. Their dedicated support and constant encouragement have been instrumental in shaping the growth of our chapter.

We extend our warmest congratulations to the new panel and wish them great success in their tenure.



Dr. Kishor P.



Dr. Elson John



Dr. Abhijith S.

PROJECT CORNER

ASCE'S INDUSTRIAL-BASEMENT PROJECT

The ASCE Student Chapter has launched a new initiative to design an industrial basement that will serve as a shared workspace for nearly six student technical clubs. The facility will include dedicated workshops for heavy projects, storage for tools and spares, a discussion zone, circulation areas, and a scrap section. A 13-member design team, experienced in 3D modelling, is working to ensure efficient space allocation, smooth workflow, and long-term usability.

Progress So Far

The project began with a meeting on 21-08-2025, where the team consulted seniors, inspected the site, and identified key needs such as ventilation and storage. By 26-08-2025, they completed site measurements, hand sketches, and zoning layouts for workshops, storage, and utilities. The team also analyzed the site slope to study water flow and proposed drainage solutions to prevent waterlogging, ensuring safety and sustainability in the design.



OUR COMMUNITY

The ASCE CET Student Chapter is a dynamic platform that unites aspiring civil engineers under the banner of the American Society of Civil Engineers (ASCE). With a strong membership of over 300 students, the chapter serves as a bridge between academic knowledge and professional practice, nurturing technical expertise, leadership, and innovation.

Under the guidance of experienced faculty and practitioner advisors, our chapter regularly organizes impactful activities such as panel discussions, technical workshops, webinars, site visits, expert talks, and competitions. These initiatives provide members with practical exposure, teamwork opportunities, and industry readiness, equipping them to face the challenges of the civil engineering profession.

Together, the ASCE CET Student Chapter forms a vibrant community dedicated to shaping not only better engineers but also responsible leaders for the future of civil engineering.



DR. ANUSHA S P
FACULTY ADVISOR



DR. KISHOR P
PRACTITIONER ADVISOR



SYAM S
PRESIDENT



DEVANARAYANAN VINOJ
VICE PRESIDENT

Welcome First Years!

The ASCE CET Student Chapter warmly welcomes you to the world of Civil Engineering. As you begin this journey, remember—you are not just learning to build structures, but to shape a better tomorrow. We look forward to growing, learning, and creating with you.

— ASCE CET Student Chapter

BATCHING PLANT DESIGN PROJECT

The ASCE Student Chapter has launched the Batching Plant Design Project with a 20-member team. Phase 1 began on 21-08-2025 with IS code reference and background study. From 8–21 September, the team will work on ideation by identifying constraints and studying RMC practices. The next stage (22 Sept–10 Oct) will focus on algorithms and flowcharts, tested with sample cases. Finally, 17–23 October will be dedicated to compiling findings into a detailed project report. This project aims to create a structured framework for efficient batching plant design.



alumni corner

Building Dreams, Brick by Brick:

I feel very happy to connect with all of you through this letter.

Dear Civil Engineering Students of College of Engineering, Trivandrum,

As you step into the world of engineering, I want to share a story—a journey that began within the very classrooms you now sit in, under the watchful guidance of expert professors who are not just teachers but mentors and friends. My time at CET was not merely the acquisition of a degree, it was the forging of a lifelong purpose. I was there as a student from 1989-1993. The year 1989 was marked as 50 years of CET's existence and we were really proud of being part of the golden jubilee celebrations.

From Concepts to Construction: The Foundations Laid at CET

Imagine a place where knowledge is more than textbooks or lectures, where it is shaped in discussions, collaboration, and the patient explanations of professors who care for your growth. CET, for me, was such a sanctuary. The friendly and understanding teachers made it easy to ask questions, voice doubts, and explore ideas—creating a climate where curiosity flourished and concepts found clarity.

Every class taught more than engineering principles—it taught us perseverance, teamwork, and the ethics that drive our profession. From the theory of structures to the intricacies of soil mechanics, I learned to see challenges as opportunities to build something enduring.

Sweating in the Field: Lessons Beyond the Classroom

I still remember the blistering 46°C sun in Gwalior during the mid-nineties, where practical knowledge was acquired, not from comfort, but from sweat and effort at site. Fieldwork wasn't just a test of skill but of willpower: surveying land, inspecting concrete pours, and solving unexpected problems in real time. It's in these moments—critiqued and guided by experienced supervisors and engineers—that classroom concepts became real, each grain of sand and every steel rod an embodiment of our learning.

Don't shy away from such experiences. The field teaches resilience, adaptability, and the value of hard work. You learn not only to engineer structures but also to engineer yourself into a stronger, more capable professional.

Lifelong Learning: The Endless Road Ahead

Over years of practice and growth, one lesson stands above all—never stop seeking knowledge. Each phase of your career will present new challenges and opportunities. Embrace them. Whether it's mastering new software, understanding sustainability, or learning from failures, every experience adds to your arsenal.

Your education at CET has empowered you, but true learning is lifelong. Continue reading, questioning, listening, and experimenting. Civil engineering isn't static; it evolves, and so must you.

Making the Impossible Possible: The Engineer's Promise

Let me offer you one unwavering belief: Everything is possible in engineering. There are times you will face the seemingly impossible—a bridge across a chasm, a foundation on shifting soil, a deadline that feels unattainable. Remember, these are only challenges waiting to be conquered.

With your dedication, passion, hard work, and unwavering discipline, you possess the tools to transform impossibility into achievement. The world is built by those who dare to believe, who persist when others falter, and who find solutions through grit and grace.

Leave Your Mark

As CET students, you stand on the shoulders of giants. The legacy you inherit is one of excellence, innovation, and relentless spirit. Build on it. Let each structure, each blueprint, and every small act of integrity be a testament to your commitment and love for the profession.

Civil engineering isn't just about structures—it's about shaping societies and bettering lives. You're not just building structures, bridges and roads; you're building future, including your own. It is also innovations in civil engineering that would be very crucial in the coming years.

So, step forward with confidence. The world awaits the difference you will make.

Dream big. Work hard. Build well and be a lifelong student:

With pride and hope A fellow engineer shaped at CET.

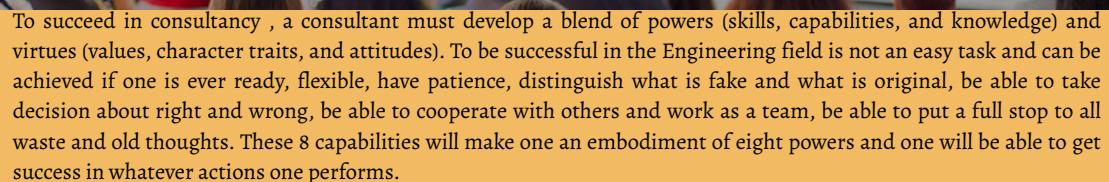
**-Madhavan Praveen
Chief Technical Officer
TECHNOPARK**

Divine powers and virtues for consultancy

-DR. MITRA D. C.

Associate Professor

CET (CIVIL DEPT.)



To succeed in consultancy, a consultant must develop a blend of powers (skills, capabilities, and knowledge) and virtues (values, character traits, and attitudes). To be successful in the Engineering field is not an easy task and can be achieved if one is ever ready, flexible, have patience, distinguish what is fake and what is original, be able to take decision about right and wrong, be able to cooperate with others and work as a team, be able to put a full stop to all waste and old thoughts. These 8 capabilities will make one an embodiment of eight powers and one will be able to get success in whatever actions one performs.

Powers (Capabilities & Skills)

These are the competencies that empower a consultant to analyze, advise, and deliver results.

1. Analytical Thinking

- Break down complex problems.
- Spot patterns and connections.
- Use data and logic to support conclusions. The mind is the subtle department of the Soul which does the work of thinking. The mind produces thoughts continuously which is followed by action. The soul should have the power to control the mind so that fruitful thoughts are created which leads to productive actions.

2. Subject Matter Expertise

- Deep knowledge
- Up-to-date with trends, tools, and best practices. One should always be a student and willing to change ones thinking and understanding and be flexible and absorb new trends and changes.

3. Strategic Thinking

- See the bigger picture.
- Align recommendations with long-term business goals. One should be able to see both the sides of the coin and decide how to move ahead. One should take the decision or judgement as each situation or problem arises.

4. Problem-Solving Skills

- Offer actionable, practical solutions.
- Navigate ambiguity and constraints.

The power of cooperation is very important as always one cannot move ahead alone and needs the support of a team and navigate through difficult situations.

5. Communication Skills

- Clear, persuasive verbal and written communication by using the power of judgement.

6. Interpersonal Skills

- Navigate office politics, stakeholders, and team dynamics which can be achieved with the power of cooperation.

7. Project Management

- Deliver on time, on budget by using the power to pack up
- Manage scope, risks, and client expectations by using the power to face new situations.

8. Adaptability

- Adjust quickly to new industries, clients, and challenges by using the power of adjustment

9. Facilitation & Negotiation

- Run productive workshops.
- Navigate competing interests diplomatically using the power of tolerance.

10. Tech Literacy / Tools Proficiency

- Proficient in relevant tools (Excel, PowerPoint, BI tools, CRM, etc.).
- Ability to recommend and implement technological solutions using the power of cooperation

Virtues (Character & Mindset)

These are qualities of character that earn trust, build long-term relationships, and maintain ethical integrity.

1. Integrity

- Speak the truth even when it's uncomfortable.
- Avoid conflicts of interest. Many a times consultant will be forced to travel against his will. During such circumstances one should have this virtue to overcome negative actions.

2. Curiosity

- Desire to understand the client deeply.
- Ask the right questions. Willingness to learn from new problems and situations is a must for a successful career.

3. Humility

- Admit when you don't know.
- Be open to learning from the client and colleagues. One should be a student till the end to achieve greater height and for this one has to have no ego and accept new information and ideas even from juniors.

4. Empathy

- Understand the emotional and cultural context of a client's challenge.

5. Discretion

- Handle confidential information carefully and ethically.

6. Resilience

- Stay composed under pressure.
- Bounce back from setbacks or rejections.

7. Accountability

- Own your recommendations and outcomes.
- Follow through on commitments.

8. Professionalism

- Consistent, reliable, respectful behavior.
- Present yourself well, both visually and behaviorally.

9. Service Orientation

- Focus on delivering real value to the client—not just billable hours.

10. Courage

- Speak up when something is wrong.
- Recommend bold moves when necessary.

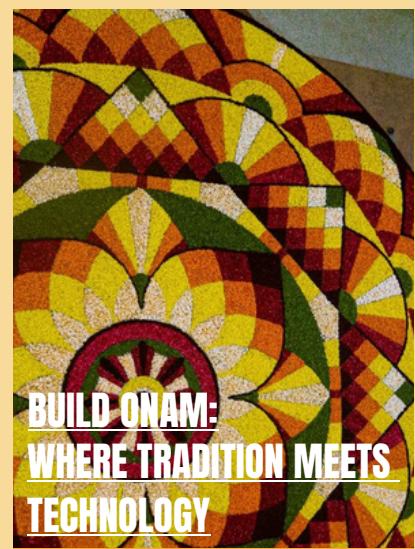
Power + Virtue = Trusted Advisor The goal in consultancy is to evolve from just a "problem solver" to a trusted advisor . That only happens when your powers (skills) are backed by virtues (trustworthiness and character).

EVENTS HIGHLIGHTS



ONAM QUIZ CHALLENGE

The ASCE CET Student Chapter organized a 10-day Civil Engineering Onam Quiz Challenge as part of the Onam celebrations, beginning from 26th of August 2025 (Atham). The event was designed as a poll-based contest conducted daily through the official ASCE CET Instagram page, where quiz questions integrating themes of Onam with core civil engineering concepts were posted as interactive stories at 4 pm everyday. The initiative received active participation from students, who enthusiastically engaged with the questions, making the event both festive and educational. By combining cultural celebration with technical learning, the quiz challenge successfully created a platform for students to test their knowledge, compete with peers, and embrace the true spirit of Onam within an engineering perspective.



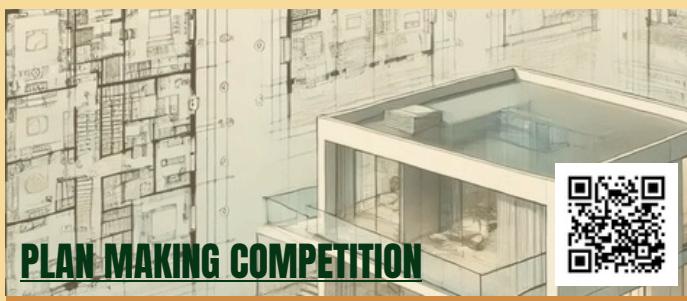
BUILD ONAM: WHERE TRADITION MEETS TECHNOLOGY

Our Chapter has brought a unique twist to this Onam season by blending engineering precision along with cultural artistry. As part of the festive celebrations, we launched BuildONAM – a Pookkalam Design Competition using AutoCAD.

The event invites students to recreate the beauty of the traditional floral carpet digitally, showcasing how engineering tools can give life to creativity. Participants are challenged to design a Pookkalam within a $1\text{m} \times 1\text{m}$ boundary, using only AutoCAD commands—particularly the Hatch feature—to craft colorful and intricate patterns. Submissions are made in PDF format (A4 size) ensuring both accuracy and aesthetic appeal.

This competition is a fusion of cultural expression and technical skill. By restricting enhancements from external software, the event ensures that students truly explore the potential of AutoCAD as a creative tool. The enthusiasm among participants reflects not only the festive spirit of Onam but also the innovative mindset of budding engineers.

With free registration and attractive rewards awaiting winners, BuildONAM has quickly become a highlight of this festive season at CET, with a greater number of participation.



PLAN MAKING COMPETITION

The ASCE CET Student Chapter has announced the conduct of a Plan Making Competition as part of its technical initiatives aimed at enhancing design and planning skills among students. The competition provides a platform for participants to demonstrate their planning, design, and estimation abilities in a structured manner.

As per the guidelines, participants are required to prepare a 450 sq.ft. building plan, which should include the elevation, cost estimation, and material specifications. The competition allows participation either individually or in teams comprising a maximum of three members.

The deadline for submission has been set as 24 September 2025. All participants will be awarded certificates, and winners will receive exciting prizes in recognition of their efforts.

Through this event, we aims to provide a platform that combines academic learning with practical application, enabling students to apply their engineering knowledge to realistic design problems.

SKETCH UP WORKSHOP

The ASCE CET Student Chapter organized a three-day SketchUp Workshop from 04th August 2025 to 07th August 2025, aimed at equipping students with essential skills in 3D modeling, visualization, and rendering. The workshop provided a step-by-step learning experience, starting from basic concepts to advanced rendering, enabling participants to bridge the gap between design creativity and engineering applications.

The sessions were handled by Syam S, Emmanuel, and Sruthi, who guided the participants throughout the workshop with interactive teaching and effective demonstrations.

On Day 1 (04/08/2025), the session involved with getting started with SketchUp, which introduced the participants to the basics of the software. The session covered an overview of the interface, tools, and navigation features, along with drawing essentials such as lines, rectangles, circles, and arcs. Key modeling tools including Push/Pull, Move, Rotate, and Scale were explained, and the importance of Groups and Components in organizing models was highlighted. The participants practiced creating simple 3D shapes such as cubes, prisms, and triangular prisms, thereby developing a foundational understanding of 3D space and modeling techniques.



On Day 2 (06/08/2025), the session focused on Modeling and Visualization. Participants applied the skills gained in the previous session to model a basic single-storey house. The session included the creation of structural components such as walls, slabs, openings, doors, and windows. In addition, students were introduced to the 3D Warehouse, which allowed them to import pre-designed objects and integrate them into their models. A sample plan drawing was also provided to the students, containing necessary details to assist them in accurately replicating the model. This session emphasized the application of tools in developing a complete structural model, providing the participants with experience in converting design concepts into digital representations.



In conclusion, the SketchUp Workshop was highly beneficial in enhancing the technical skills of the participants. Around 50 participants were engaged, and the certification will definitely help them in their future. By the end of the program, students were able to create and edit building models, render them realistically, and export presentation-ready outputs. The program received positive feedback from attendees and proved to be a valuable step towards integrating digital design skills into civil engineering practices.

STUDENT ARTICLES



HOUSE LIFTING TECHNOLOGY, A RAY OF HOPE IN THE FLOOD AREAS

House lifting is an innovative structural solution designed to protect buildings from flood damage, particularly those located below sea or road level. The process involves carefully separating a building from its foundation and elevating it using hydraulic jacks. After thorough structural and foundation assessments by qualified engineers, utilities are disconnected, and lifting beams are strategically installed. The house is then raised, the foundation is extended to the desired height, and all services are reconnected.

In Kerala, this technique has gained significant popularity in flood-prone areas. A growing number of professional firms now offer specialized house lifting services.

-Jyothika (S3 C2)



Why Structures Carry Loads

(Reference – Why Things Don't Fall Down, J.E. Gordon)



PORTABLE "MRI" FOR BRIDGES: A GAME-CHANGER IN INFRASTRUCTURE SAFETY

Researchers at the University of Texas at Arlington (UTA) have created a portable bridge scanning system that could transform infrastructure safety. Nicknamed the "MRI for bridges," this trailer-mounted device uses sensors, automation, and AI to uncover hidden structural issues that traditional inspections often miss—all while traffic continues to flow.

The system works by delivering mechanical impacts to the bridge surface. Sensors measure mechanical waves penetrating up to three feet, and AI software generates a 3D visualization of internal conditions. This replaces labor-intensive tapping methods and reduces safety risks for inspectors.

The innovation is crucial as rising temperatures and extreme weather strain bridges worldwide. Heat can expand steel and concrete beyond design limits, causing cracks, corrosion, and functional damage. With summer temperatures in Texas exceeding 38 °C, early detection is vital. This technology allows timely repairs, preventing minor flaws from escalating into catastrophic failures.

Anakha R. Nair (S3 C1)

How can a solid like steel, stone, or timber resist force—or even sustain its own weight? This is the problem of “Why we don’t fall through the floor,” and the answer lies in Newton’s third law: action and reaction are equal and opposite. If a cathedral pushes on its foundations, they push back. Forces never disappear; if unbalanced, a structure breaks or rockets away. Hooke realized that solids resist loads only by deforming. Every solid changes shape by stretching or contracting when a force acts on it, and this deflection enables the material to push back. For instance, a string holding a brick stretches, and it is this stretching that prevents the brick from falling. All materials deflect to some extent, and this is normal, not a fault. Elasticity, the study of force and deflection, shows that stiffness varies greatly—from rubber to metals to diamond.

-Bhadra Mesmer (S3 C1)





ITALY APPROVES WORLD'S LONGEST SUSPENSION BRIDGE

In a landmark decision, the Italian government has approved a €13.5 billion (\$15.5 billion) project to construct the world's longest suspension bridge across the Strait of Messina. The bridge will span nearly 3.7 kilometers, linking mainland Italy to Sicily.

The structure is designed to carry both road and rail traffic, significantly reducing travel time while boosting economic development in southern Italy. Construction is expected to begin in late 2025, with completion projected between 2032 and 2033.

Beyond being an engineering marvel, the bridge is expected to create tens of thousands of jobs during its construction and operation phases. It represents one of Europe's boldest infrastructure undertakings in decades.

-Lekshmi Suresh (S3 C1)



FROM WASTE TO WAYS: RECLAIMED ASPHALT PAVEMENT AS A SUSTAINABLE SUBSTITUTE

Recently, the Kerala Public Works Department has decided to pilot the Reclaimed Asphalt Pavement technology in road construction. The initial trial work is planned to be carried out on the Killipalam-Pravachambalam road in Thiruvananthapuram.

Reclaimed Asphalt Pavement (RAP) refers to removed and/or reprocessed pavement materials that contain asphalt and aggregates. These materials are typically generated when asphalt pavements are removed for reconstruction. Some studies have observed that higher RAP content can increase mixture stiffness.

By reducing the demand for virgin aggregates, RAP contributes significantly to sustainable construction practices. For a developing state like Kerala, RAP technology can indeed be regarded as a stride towards sustainability.

-Devananda A (S3 C2)



EDITORIAL BOARD

The ASCE CET student chapter has always been a platform for aspiring civil engineers to learn, collaborate and grow beyond the classroom. Through ASCE INSIGHTS we have embarked on a new journey of learning and has given its readers access to relevant topics and news. In this third edition of our newsletter we have put special efforts to bring you excellent articles and diverse elements that could help nurture the builder in you. We have shed light upon the trajectory of our club activities as well. May it serve as a reminder that every step we take as learners and Professionals is part of a larger journey towards building stronger, smarter and more sustainable communities.

-Lavanya.R.S

-Laya Rose Jijoy



SketchUp

SOFTWARE SPOTLIGHT

SketchUp is a 3D modeling software commonly used in civil engineering for designing buildings, bridges, roads, and site layouts. It allows engineers to prepare accurate plans, elevations, and 3D visualizations that help in understanding the project before construction. With features like 3D Warehouse, material textures, shadow analysis, and CAD/BIM file support, SketchUp makes structural detailing, quantity estimation, and presentation of projects easier. Its simple interface and versatile tools make it valuable in both academic learning and professional practice.

KERALA MAY GET ITS TALLEST

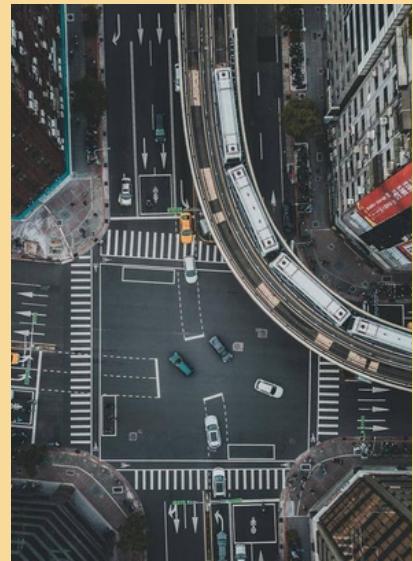
FLYOVER IN KOCHI

The National Highways Authority of India (NHAI) has proposed the construction of Kerala's tallest elevated highway, soaring 32 meters above the bustling Vytila Junction in Kochi.

If approved, the flyover will be built above the Kochi Metro line, making it a unique multi-level transport corridor. The project aims to decongest one of the state's busiest intersections, where daily traffic jams affect thousands of commuters.

Experts see the project as a significant step in urban mobility planning, blending metro, road, and highway infrastructure into a single layered system.

-Lekshmi Suresh (S3 C1)



NEW SIX-LANE GANGA BRIDGE OPENS IN BIHAR, INDIA

India achieved another engineering milestone with the inauguration of the Aunta-Simaria Six-Lane Ganga Bridge on 22 August 2025. The cable-stayed structure connects Barauni and Mokama, dramatically improving north-south connectivity in Bihar.

The bridge includes dedicated footpaths and cycling tracks, ensuring safer movement for pedestrians, cyclists, and two-wheelers. Its construction not only relieves traffic congestion but also strengthens trade and economic flow across the Ganga region.

This bridge showcases India's growing expertise in large-scale infrastructure projects that balance speed, safety, and sustainability

-Lekshmi Suresh (S3 C1)

KNOW YOUR CODE

IS 10262: 2019

IS 10262:2019 is the latest Indian Standard code that provides guidelines for concrete mix proportioning. It replaced IS 10262:2009 and is used along with IS 456:2000 for designing concrete mixes with desired strength, durability, and workability. The code includes procedures for ordinary, standard, and high-strength concrete, and also considers the use of mineral admixtures and chemical admixtures. In civil engineering practice, IS 10262:2019 plays a key role in ensuring economical and reliable mix designs suitable for modern construction requirements.



HIGHWAY ABOVE METRO IN KOCHI? VYTTILA MAY GET KERALA'S TALLEST FLYOVER

KOCHI: Vytila Junction, one of Kerala's busiest intersections, may soon host a landmark engineering project. The National Highways Authority of India (NHAI) is considering constructing an elevated highway 32 metres above ground—towering over the Kochi Metro line. If approved, it would become the tallest flyover in the state.

The model was first proposed at Palarivattom, where the elevated highway would pass above Metro Phase II (Pink Line). A similar idea had been explored at Edappally, but instead, NHAI opted for underpasses near Lulu and Oberon malls to ease congestion.

At Vytila, however, the revised alignment recommends the highway run parallel to the Kundanoor flyover, rising above the existing Metro viaduct. The report, prepared by Highway Engineering Consultants for the Edappally-Aroor elevated highway, has been submitted to NHAI's Kochi office and will be sent to Delhi for clearance before detailed project report (DPR) preparation.

-Karthika M. Anil (S3 C1)

WORD SEARCH

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

- 1) SUBGRADE 4) CONSOLIDATION 7) DEFLECTION
2) PRESTRESSED 5) HYDRODYNAMICS 8) WORKABILITY
3) RETROFITTING 6) PHOTOGRAMMETRY 9) TORSIONAL



- 1) Brihadeeswarar Temple (Tamil Nadu, 1010 AD) was built entirely out of granite without modern machinery; its dome weighs about 80 tons and was placed using a 6 km long inclined plane.
- 2) The Howrah Bridge (Kolkata, 1943) is a cantilever bridge made without nuts and bolts – it's riveted!
- 3) Bandra–Worli Sea Link (Mumbai, 2009) used steel equivalent to the weight of 50,000 African elephants.
- 4) The Konark Sun Temple (Odisha, 13th century) was designed as a giant stone chariot with 24 wheels, showcasing early engineering brilliance.
- 5) Ancient Indians used a form of lime-mortar and natural adhesives that made structures like the Iron Pillar of Delhi (1,600 years old) resistant to corrosion.
- 6) Stepwells (Baolis), such as Rani ki Vav in Gujarat, were marvels of hydraulic engineering to store and manage water sustainably.
- 7) The Indus Valley Civilization (2600–1900 BCE) had advanced urban planning with grid-pattern streets and the world's earliest urban sanitation system.



GATEWAY TO SUCCESS: QUESTIONS OF THE MONTH

- 1) The most common coagulant used in water treatment is:
A. Alum
B. Chlorine
C. Ozone
D. Bleaching powder
- 2) The stopping sight distance (SSD) depends on:
A. Reaction time of driver and braking distance
B. Speed only
C. Road gradient only
D. Width of the road
- 3) The unit of kinematic viscosity is?
- 4) In a simply supported beam of span 6 m, a point load of 10 kN acts at midspan. What is the maximum bending moment?
- 5) The least count of a prismatic compass is?



ASCE CET STUDENT CHAPTER
COLLEGE OF ENGINEERING TRIVANDRUM

WE ARE ACCEPTING SPONSORSHIP

Key activities

1. TECHNICAL WORKSHOPS
2. INDUSTRIAL VISITS
3. PAPER PRESENTATION
4. EXPERT TALKS AND SEMINARS
5. COMMUNITY OUTREACH
6. ASCE ANNUAL SYMPOSIUM

Sponsorship benefits

1. EXTENSIVE BRAND VISIBILITY
2. SOCIAL MEDIA OUTREACH
3. ACKNOWLEDGEMENT AT MAJOR EVENTS
4. NETWORKING AND TALENT ACCESS

DEPARTMENT OF CIVIL ENGINEERING

Contact Us:



: asce_cet



: American Society of Civil Engineers CET



Articles are invited.
Please do scan the below attached
QR code and send your article.