

CIVIL CHRONICLE



NEWSLETTER BY DEPARTMENT OF CIVIL ENGINEERING
ADI SHANKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY, KALADY
APPROVED BY AICTE, NEW DELHI. AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, KERALA



DEPARTMENT VISION

- “TO EMERGE AS A CENTRE OF EXCELLENCE IN CIVIL ENGINEERING WITH GLOBAL PERSPECTIVES.”



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DEPARTMENT MISSION

- TO IMPART QUALITY PROFESSIONAL EDUCATION SO THAT THE STUDENTS EMERGE AS A COMPETENT PROFESSIONAL IN THE AREA OF CIVIL ENGINEERING.
- TO PROMOTE INNOVATIVE THINKING AND LIFELONG LEARNING IN BUDDING ENGINEERS.
- TO PRODUCE CIVIL ENGINEERS WHO HAVE IMBIBED ETHICAL VALUES TO SERVE THE SOCIETY AND NATION.



PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- GRADUATES WILL HAVE A POTENTIAL TO PURSUE HIGHER STUDIES AND RESEARCH IN THE FIELD OF CIVIL ENGINEERING.
- GRADUATES WILL BE ABLE TO PRODUCE SUSTAINABLE SOLUTIONS WITH PROFESSIONAL ETHICS FOR REAL TIME CIVIL ENGINEERING PROBLEMS.
- GRADUATES WILL HAVE MANAGERIAL SKILLS AND LEADERSHIP QUALITIES IN EXECUTION OF CIVIL ENGINEERING PROJECTS.
- GRADUATES WILL BE ABLE TO WORK WITH INTEGRITY AND ETHICAL VALUES.

PROGRAM SPECIFIC OUTCOMES (PSOs)

AFTER SUCCESSFUL COMPLETION OF B.TECH IN CIVIL ENGINEERING, THE STUDENTS WILL BE ABLE TO:

- CHECK THE FEASIBILITY AND SUSTAINABILITY OF CIVIL ENGINEERING PROJECTS BY CONDUCTING GEOTECHNICAL INVESTIGATION, CIVIL ENGINEERING SURVEY AND ENVIRONMENTAL IMPACT ASSESSMENT.
- ANALYSE AND DESIGN BUILDINGS, HYDRAULIC STRUCTURES AND WATER DISTRIBUTION, WASTE MANAGEMENT AND TRANSPORTATION SYSTEMS.
- EXECUTE CIVIL ENGINEERING PROJECTS WITH THEIR KNOWLEDGE IN ESTIMATION, PROJECT MANAGEMENT, CONSTRUCTION MATERIALS AND TECHNOLOGIES.



**DEPARTMENT OF
CIVIL ENGINEERING**

RESUME BUILDING & PROFILE SETTING SESSION FOR S7 STUDENTS

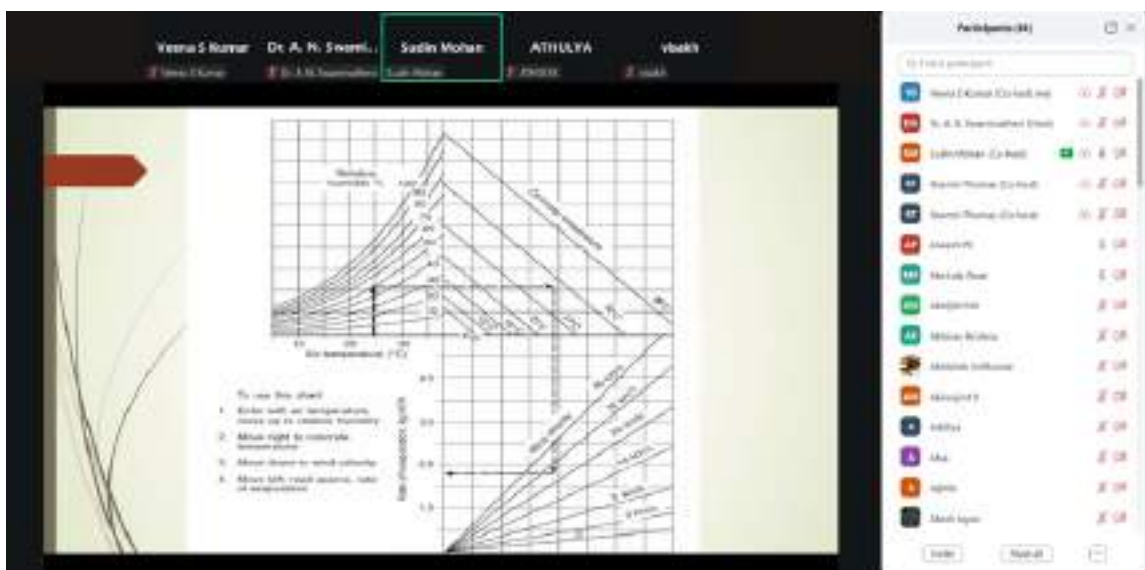
A Resume Building and Profile Setting session was held on 1st July 2025 at 1:30 PM in the College Auditorium for the students of semester 7 by the EasyLink team. The session focused on helping students create effective resumes and set up professional profiles for job portals and LinkedIn. Students were guided on how to present their academic achievements, internships, and projects professionally. The session was mandatory and proved to be highly informative, supporting students in enhancing their career preparedness.

The session was well-received, with the participants expressing that the session significantly improved their understanding of resume crafting and online profile management. It also equipped the students with the skills to craft a compelling resume and build an impactful professional online profile—essential tools for standing out in competitive job markets. The session provided tips for tailoring resumes and cover letters to specific roles and industries. It also helped the students to familiarize with common pitfalls in resume writing and how to avoid them.

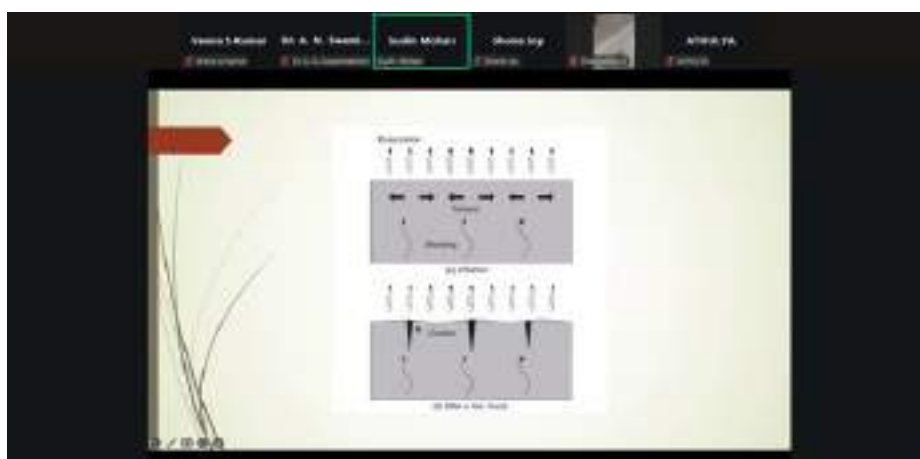
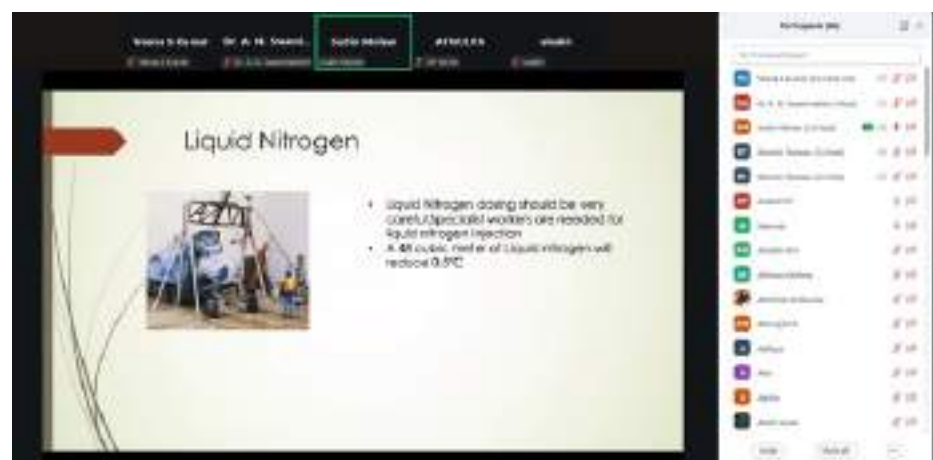
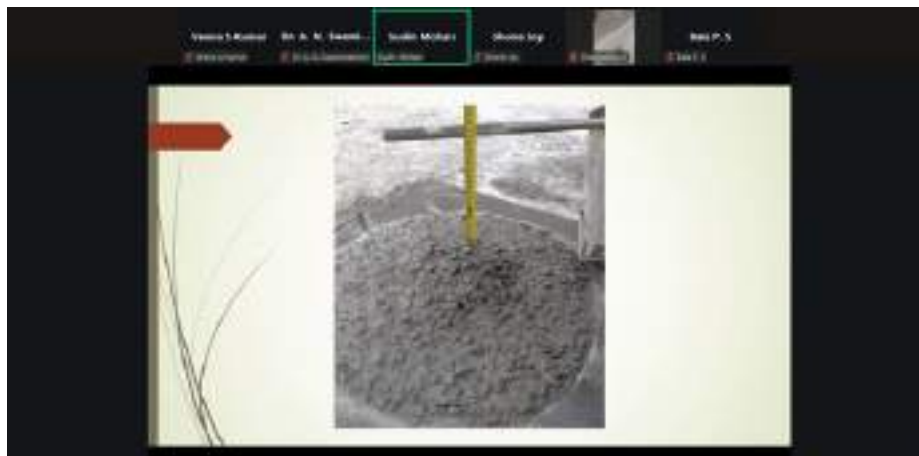
WEBINAR ON MANAGING CONCRETE PERFORMANCE IN HOT WEATHER CONDITIONS

The Department of Civil Engineering organized a webinar on “Managing Concrete Performance in Hot Weather” by Mr. Sudin Mohan, Concrete Technologist and Admixture Specialist on 11th July 2025. Dr. A N Swaminathen, Professor and Ms. Rosmin Thomas, Assistant Professor of the department coordinated the event.

The webinar focussed on techniques to maintain workability, strength, and durability of concrete under high temperature conditions. It also included practical measures such as controlling mix temperature, using admixtures, and implementing proper curing methods to prevent rapid moisture loss and thermal cracking.



WEBINAR ON MANAGING CONCRETE PERFORMANCE IN HOT WEATHER CONDITIONS



EXPERT TALK

The Department of Civil Engineering organized an expert talk on “Opportunities after Engineering through GATE Exam” on 4th July 2025 for the students of 5th Semester. The session aimed to create awareness among students about the various academic and career prospects available through Graduate Aptitude Test in Engineering.

The resource person for the session was Mr. Anith T Ajayaghosh, Director, ONES. The session created valuable insights on higher education opportunities in premier institutions, recruitment through Public Sector Undertakings (PSUs), research fellowships, and international study prospects.



SCALING NEW HEIGHTS

**Adi Shankara**
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Congratulations



MR. VIDYADHAR PRABHU
2021-2025 BATCH CIVIL STUDENT

GOT SELECTED BY **I&T** SPONSORED MASTER DEGREE
PROGRAMME ON CONSTRUCTION TECHNOLOGY AND
MANAGEMENT IN **NTT** TIRUCHIRAPALLI UNDER BUILD
INDIA SCHOLARSHIP PROGRAMME OF **I&T**
CONSTRUCTIONS.



STUDENT ACHIEVEMENTS

READING WEEK LAURELS



Afsa Usman of CE 2024-2028 batch received award for 'കഥയ്ക്കു മേൽ' contest organized by the ASIET Literary Club as part of the Vayanavaram celebrations.

STUDENT ACHIEVEMENTS

STUDENT INTERNSHIPS



Gopika Shanavas
S7 CE

Gopika Shanavas of S7 Civil Engineering successfully completed a one-month summer internship at the Department of Management Studies, NIT Calicut, under the guidance of Dr. Nithya M. Her project, titled “Improving Customer Retention in Wellness Startups – A Case Study on Habuild’s 21-Day Yoga Journey,” explored marketing strategies and customer engagement in the wellness sector.

She became the finalist of "Face of Forum", a fashion show conducted by Forum Mall, Kochi. She was selected from the ASIET Fashion Team and competed with participants from other colleges, representing the team through her excellent performance in the first two rounds.

STUDENT ACHIEVEMENTS

FACULTY PARTICIPATION IN FDP ON DIGITAL TRANSFORMATION IN TEACHING



Dr. Parameswaran T G
Associate Professor

Dr. Parameswaran T. G., Associate Professor of the Department, participated in a Faculty Development Programme on “Innovative Teaching and Research in the Era of Digital Transformation” held from 19th to 21st June 2025, organized by the Faculty Professional Enrichment Cell in association with IQAC. The FDP aimed to enhance teaching and research skills in the evolving digital landscape.

GEOTECHNICAL INSIGHTS: LESSONS FROM THE NH-66 COLLAPSE IN MALAPPURAM

The recent collapse of the under-construction National Highway 66 (NH-66) at Kooriyad, Malappuram, serves as a poignant reminder of the challenges associated with infrastructure development in regions characterized by complex geotechnical and hydrological regimes. As geotechnical engineers and practitioners, it is imperative that we extract lessons from such incidents to inform future practice and policy.

Site and Incident Overview

On May 19, 2025, a section of the elevated six-lane NH-66 collapsed near Kooriyad and Kolappuram (Fig. 1), prompting the National Highways Authority of India (NHAI) to initiate traffic diversions. The failure, which occurred near a service station, resulted in the retaining wall giving way and the highway caving onto the service road below, involving multiple vehicles but, fortunately, causing no casualties. Additional cracks were reported at Thalappara on the same highway stretch the following day.



Fig. 1 NH-66 collapse in Malappuram

Preliminary Technical Diagnosis

According to NHAI Project Director Anshul Sharma, the proximate cause of the collapse was a cavity that developed beneath the road pavement due to incessant rainfall. Intense rains likely increased pore water pressures in the subsurface, particularly in the clayey or silty soils typical of Kerala's paddy lands. Elevated pore pressures can decrease the effective stress in soils, effectively 'floating' the soil particles and reducing the shearing resistance of the ground. Sharma noted, "Pore water pressure during heavy rain exerted force on the foundation and bulged out the soil into the paddy field. This created a cavity under the road," leading to the eventual failure and collapse.

This is a textbook illustration of rain-induced slope instability, especially in scenarios where rapid infiltration from precipitation outpaces the ability of subsurface drainage systems to relieve excess water pressure. Clay layers, known for their low permeability and hence poor drainage characteristics, are particularly vulnerable in this context. The collapse mechanism was further exacerbated by the failure of the retaining wall to contain the lateral soil movement.

Engineering and Design Considerations

While heavy rainfall is undeniably a contributing factor, infrastructure must be designed with adequate consideration of regional hydrology and geotechnical characteristics. In this case, the following factors merit attention:

- **Subsurface Drainage:** The incident underscores the importance of robust subsurface drainage to intercept and channel groundwater and rainwater away from vulnerable soil strata.
- **Retaining Structures:** Retaining wall design should account not just for lateral earth pressures but also for potential surcharges imposed by the buildup of pore waters during extreme rain events.
- **Foundation Soils:** Proper site investigation, including the characterization of compressible, collapsible, or expansive soils, is non-negotiable.

In locations with high groundwater tables or waterlogged paddy fields, soil stabilization, use of geosynthetics, or pile foundations may be mandatory.

- **Construction Methods:** Phased construction combined with real-time geotechnical instrumentation (piezometers, inclinometers) can aid in the early detection of problematic pore pressure buildup or ground movement.
- **Rainfall Consideration in Design Codes:** The increasing frequency of extreme rainfall events due to climate change necessitates an evolution of national design codes to include updated rainfall return periods and hydrological modelling.

Broader Implications and Way Forward

Local stakeholders, including the Vengara Panchayat President, have attributed the collapse to “unscientific construction,” alleging a pattern of waterlogging and community disturbance each monsoon since the highway’s reconstruction. This community feedback highlights the importance of integrating local knowledge and post-construction monitoring into the infrastructure lifecycle.

An independent expert committee has been tasked with a detailed investigation. Their findings will be vital for understanding root causes and preventing recurrence—not just on NH-66, but across similar projects nationwide.

Concluding Thoughts

As the field of geotechnics advances, close collaboration between designers, constructors, and local authorities is essential to manage the risks presented by adverse soil and climatic conditions. Incidents like the NH-66 collapse are instructive: they urge us to adopt holistic design philosophies, invest in geotechnical instrumentation, and update engineering practice in light of climatic realities.

Let us take this as an opportunity to push for more rigorous, science-based approaches in highway engineering, ensuring that our roads remain resilient and safe amidst an ever-changing environmental backdrop.



Dr. Parameswaran T G
Associate Professor

“THE TALLEST SKYSCRAPERS RISE NOT FROM WHAT WE SEE ABOVE, BUT FROM THE STRENGTH HIDDEN BELOW.”

BUILDING SUCCESS: LESSONS FROM CIVIL ENGINEERING



Every great building begins with a strong foundation—a part we rarely notice but one that carries the entire weight of the structure. In life, success works the same way. It's not just about what is visible on the surface, like achievements or recognition. What truly holds us up are the invisible yet powerful elements: patience, resilience, and courage.

FOOD FOR THOUGHT

Resilience: Withstanding the Load

Civil structures are designed to bear immense pressure, from heavy traffic on bridges to towering loads on skyscrapers. Similarly, life places weight upon us—academic challenges, personal struggles, and unexpected setbacks. Resilience allows us to withstand these pressures without breaking. Every obstacle we overcome adds a new layer of strength, just like reinforcing steel adds stability to concrete.



Courage: Designing Beyond Limits

Great engineers do not simply construct what is easy—they dream beyond limitations. They design suspension bridges across vast rivers and skyscrapers that redefine skylines. Courage in our own lives allows us to think the same way—to take risks, to believe in possibilities that others may not see, and to create paths where none existed before.



Lessons for the Future

Civil engineering teaches us that nothing remarkable is built overnight. It's a process of planning, strengthening, and weathering tests of endurance. Whether we are designing structures or designing our lives, success relies on more than skill—it demands inner strength. Like strong foundations in construction, true success is built on patience, resilience, and the courage to face challenges. When we nurture these qualities within ourselves, we create a future that stands firm, no matter how fierce the storms may be.



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HOD'S MESSAGE



AS THE DEPARTMENT HEAD, I ENVISION OUR COLLEAGUES AND STUDENTS WALKING HAND IN HAND, COLLECTIVELY CONSTRUCTING INNOVATIVE IDEAS FOR A MORE DEVELOPED NATION. LET'S CONTINUE THIS MOMENTUM AND STRIVE FOR EXCELLENCE IN ALL OUR ENDEAVOURS.