

SCE e-NEWSLETTER

SCHOOL OF CIVIL ENGINEERING (SCE)

VIT - A Place to Learn; A Chance to Grow



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Vision Statement of the School of Civil Engineering

To excel in Civil Engineering education and research with a global perspective and commitment to sustainability

Mission Statement of the School of Civil Engineering

M1. Academic Excellence: Impart high-quality Civil Engineering education through innovative teaching methodologies and modern laboratory facilities.

M2. Research: Promote research, consultancy, and innovation addressing real-world Civil Engineering challenges with emphasis on sustainable infrastructure and societal needs.

M3. Global Perspective & Industry Engagement: Prepare globally competent Civil Engineers through industry interaction and collaboration with national and international institutions.

M4. Ethics, Sustainability & Lifelong Learning: Produce socially responsible Civil Engineers with strong ethical values and leadership skills, dedicated to sustainable development and lifelong learning.

Program Educational Objectives (PEOs)

PEO1: Graduates will be successful civil engineering professionals / entrepreneurs.

PEO2: Graduates will pursue higher studies and research for professional development.

PEO3: Graduates will demonstrate civic responsibility in addressing societal and environmental challenges.

DEAN'S MESSAGE

It is with great enthusiasm that I reach out to you as the newly appointed Dean of the School of Civil Engineering (SCE). Stepping into this role, I am filled with optimism for the future we will build together.

From pioneering smart infrastructure solutions to designing resilient urban environments, our collective work is making a tangible difference in the real world. At the School of Civil Engineering (SCE), VIT, we build on this strong foundation while preparing our students to meet the changing needs of a rapidly evolving world.

It gives me immense pleasure to present this edition of the School of Civil Engineering Newsletter, showcasing the accomplishments and milestones of our faculty members and students. The past quarter has been marked by commendable achievements in teaching, research, innovation, and professional activities. I am particularly delighted to see our faculty and students continued to excel in academics, research, and co-curricular activities, bringing recognition and pride to the school. These accomplishments reflect the dedication, perseverance, and collaborative spirit of our faculty, staff, and students.

I extend my sincere thanks to everyone in the SCE community for your unwavering commitment, passion, and support. Together, we will continue to elevate SCE's legacy and embrace new opportunities for learning, innovation, and impact.

- Dr. M.P.Saravanakumar

NEW RESEARCH INFRASTRUCTURE – DIGITAL CONSTRUCTION & ADVANCED MATERIALS CHARACTERIZATION LABORATORIES

The Honorable Chancellor and Founder Dr. G. Viswanathan inaugurated the newly established Digital Construction and Advanced Materials Characterization Lab at the Department of Structural and Geotechnical Engineering, School of Civil Engineering, Vellore Institute of Technology, Vellore on 27th October 2024. Honorable Chancellor Dr. G. Viswanathan, Vice President Mr. Sankar Viswanathan and Vice chancellor Dr. Kanchana Baskaran, Pro-Vice Chancellor Dr. S. Parthasarathi Malik, Registrar Dr. T. Jayabarathi, Dean Dr. A. S. Santhi, Heads of the Department Dr. Punitha Kumar A & Dr. Mahenthiran S, Dr. R. Prasanna Venkatesan, Prof. Dr. M. Muthukumar, Faculty in-charges for both the laboratories and other faculty members, Research scholars and students have also participated in the inaugural function.



STUDENTS' ACHIEVEMENTS

Ms. Shreya A Raghavan (22BCL0016), Ms. Lakshmi S (23BCL0089), Mr. Murali Sai (23BCL0062) Won FIRST PRIZE in the DESIGN FORGE: STAAD Pro event in the third-year category during VIT's premium tech fest, GraVITas'24, conducted by ASCE, demonstrating software and analytical expertise in handling high level problem statements.



Ms. Mishal Aslam (23BCL0041), Mr. Abhijith Maneesh (23BCL0036), Ms. T. Achamba (23BCL0042) won FIRST prize in the DESIGN FORGE: STAAD Pro event during VIT's premium technical fest, graVITas'24, conducted by ASCE, demonstrating advanced structural design skills. In addition to the above SECOND PRIZE at the Design-a-Thon on Sustainable Solutions in Modern Infrastructure Development conducted by School of Civil Engineering, VIT Vellore and IGS.



PATENTS

1. Dr. Punitha Kumar A, Associate Professor , SCE and Mr. S. Hariharan published a patent titled “Transparent Concrete Composition With Enhanced Light Transmission and Method for Producing the Same” on 3rd October 2024.
2. Dr. Surendar M, Associate Professor, SCE ,Dr. Priyadharshini B, Assistant Professor, SCE and Dr. Arjun Singh K, Assistant Professor, SCE filed a patent titled “Snowpack Profiler System” on 15th October 2024.

CONSULTANCY PROJECTS

1. Dr. Prasanth S, with Dr. Abdul Rahim A as Co-PI, received a project titled “Evaluating the Integrity of Concrete of RCC Members” from B&B Developers and Builders Pvt. Ltd., India, under the Centre for Disaster Mitigation and Management, VIT, Vellore, for a duration of 25 days, with a funding amount of ₹3.83 lakhs.(oct 24)
2. Dr. Punitha Kumar A, with Dr. Prasanth S as Co-PI, received a project titled “Structural Design of Industrial Building” from Samco Metals and Alloys Pvt. Ltd., India, under the School of Civil Engineering, VIT, Vellore, for a duration of 1 month, with a funding amount of ₹0.81 lakhs.(dec 24)
3. Dr. Konala S K Karthik Reddy, with Dr. Visuvasam J as Co-PI, received a project titled “Analysis and Design of Warehouse Design Basis Report” from Land Concepts Private Ltd., India, under the School of Civil Engineering, VIT, Vellore, for a duration of 4 months, with a funding amount of ₹0.53 lakhs.(dec 24)

SPONSORED PROJECTS

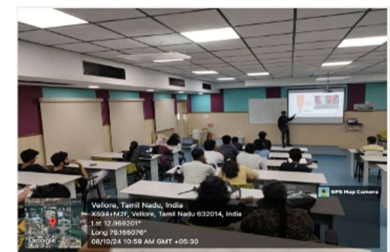
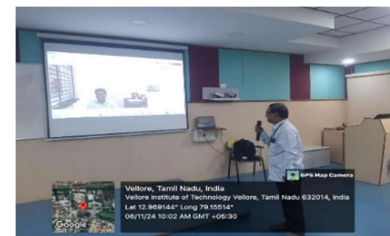
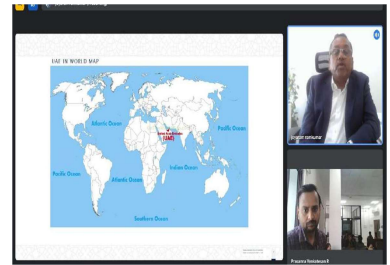
1. Dr. Vasantha Kumar S, with Dr. Lelitha Vanajaksh and Dr. Anilkumar Bachu as Co-Principal Investigators (Co-PIs), received a project titled “Development of a Performance Evaluation Dashboard for Urban Arterials and Highways using NavIC GNSS Data” from ISRO-SAC, Ahmedabad. The project was sanctioned under the School of Civil Engineering, VIT, Vellore, with a start date of 01.01.2025 and an end date of 01.01.2028, for a total duration of 3 years. The project was sanctioned in November 2024, with a funding amount of ₹25.13 lakhs.

FACULTY OUTREACH

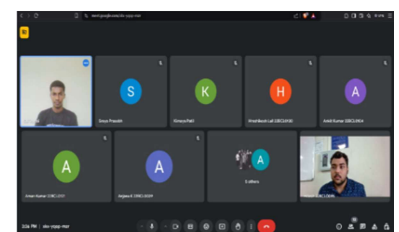
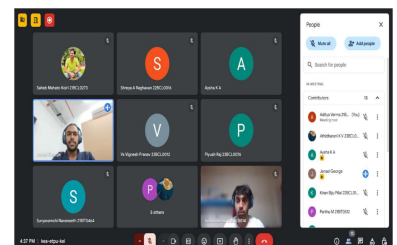
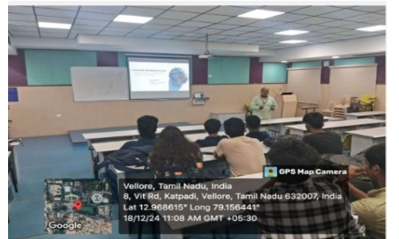
1. Dr. G.P. Ganapathy Lecture on Early Warning Systems for Landslides in India – Progress and Challenges on 07th October, 2024 at Geophysical Institute, Russian Academy of Sciences, Republic of North Ossetia-Alania
2. Dr. A. Sofi, Professor Grade 1, delivered a keynote lecture on the topic “Construction and Demolition (C&D) waste – An overview” to working site Engineers arranged by Ultratech cements during 26.11.2024.
3. Dr. Thirumalini S conducted a Seminar on “Organic Lime Mortars and Indian Built Heritage” on 13th November, 2024 at Go green Pvt Ltd and ZAG, Ljubljana, Slovenia.
4. Dr. G.P. Ganapathy conducted a lecture on “Geospatial Applications for Earthquake Risk Reduction” on 15th November, 2024 at MMTTC- Central University of Kerala, Kasaragod, India.
5. Dr. Dillip Kumar Barik, Professor Grade 1 has completed the NEP 2020 orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MMTTP) of UGC organized by Malaviya Mission Teacher Training Centre (MMTTC), Staff Training and Research Institute of Distance Education (STRIDE), Indira Gandhi National Open University (IGNOU), Maidan Garhi, New Delhi from 20th to 29th November, 2024 and obtained Grade “A+”.
6. Dr. Uma Shankar M, Professor Grade 1 delivered a presented conference paper titled on “Utilization of Industrial by Product Fly Ash Amended with Bentonite Rubber and lime as a liner in a landfill” in the 1st International Conference on Recent Trends & Advances in Water Science, Remote Sensing and Climate Change Assessing Tipping point to Maintain Global Sustainability held during 11th - 13th December, 2024 at IIT Jammu.

NATIONAL/INTERNATIONAL EVENTS ORGANISED

1. Dr. Sofi A, Professor Grade 1 and Dr. T. Meena, Associate Professor Sr., SCE, VIT coordinated an Industry guest lecturer titled “New Age Building Products & Innovative Solution for Finishing Products” on the 09th October 2024. The resource persons of the event were Er. Shrirang Tembe, Technical Head, South A Zone, Ultra Tech Cement Ltd., Building Products Division, Hyderabad. A total of 70 participants attended the lecture and actively participated in learning the new products for building finishing.
2. Dr. R. Prasanna Venkatesan, Associate Professor and Dr. T. Shanmuga Priya, Professor Grade 1, SCE, VIT conduct an international lecture on “Planning and Managing International Construction Project” on 09th October 2024. The resource persons of the event were Er. Ram Kumar, Senior Director, Proscap LLC, Dubai. The participants learned various exercises related to project planning and scheduling for different buildings.
3. On 6th Nov 2024 Dr. Subbarao Pichuka, Assistant Professor, Department of Civil Engineering, IIT Madras, Chennai, shared his view on the title, “Safety of Hydraulic Structures under the Changing Climate: Opportunities for Young Engineering” with the third year and final year UG students.
4. Dr. Sofi A Professor Grade 1 and Dr. T. Meena, Associate Professor Sr., SCE, VIT coordinated an Industry guest lecturer titled “New Age Building Products & Innovative Solution for Finishing Products” on the 09th October 2024. The resource persons of the event were Er. Shrirang Tembe, Technical Head, South A Zone, Ultra Tech Cement Ltd., Building Products Division, Hyderabad. A total of 70 participants attended the lecture and actively participated in learning about the new products for building finishing.
5. Dr Sofi A and Dr Balamurugan S organised an event “Exploring Dimensions:3D Concrete Printing” on 8th October 2024. The resource person Dr. Jayaprakash J, Professor Higher Academic Grade, SCE introduced 3D Concrete Printing to the participants and explored the evolving field of additive manufacturing, particularly its application to concrete 3D printing.
6. “Entrepreneurial Echoes: SDG Edition” an engaging session with Mr. Prashant Rathee, a VIT alumnus and co-founder of The Energy Company (TEC) was conducted on 24th October 2024 where he shared his entrepreneurial journey, focusing on his early experiences and the founding of The Energy Company in 2022.



7. Dr. Visuvasam J organized “Outreach: GreenSpark Initiative” On 9th November 2024 at Williams Matriculation Higher Secondary School where four representatives delivered lectures on sustainable design to 28 eleventh-grade students.
8. Dr. Balamurugan S organized an event “Outreach : Sustainable Design Planning” on 9th November 2024 at St Marks School event engaging 9th-grade students in the basics of eco-friendly building practices through interactive learning and activities.
9. Dr. Velvizhi G organized “Behind the Flow: A Tour of Ranitec water plant “, an industrial visit to RANITEC Water Plant on 14.11.2024 which provided its 39 participants with valuable insights into advanced water treatment processes and sustainable practices.
10. An online event titled “Legacy Linkup” was conducted on 14th December 2024 organized by Dr A Sofi, where alumni Jensel George shared invaluable insights on career opportunities after a B.Tech in Civil Engineering emphasizing on the importance of gaining hands-on experience in diverse civil sectors and securing internships with reputed companies like Larsen & Toubro.
11. Dr Sofi A organized “SDG: One Step at a Time” on 18th December 2024. The resource person, Dr. Uma Shankar, Professor Grade 2, SCE, provided an insightful overview of the 17 Sustainable Development Goals (SDGs) set by the United Nations through an engaging and interactive session.
12. On December 18, 2024, an alumni talk featuring Sai Vamsi Gangadhar Majjuri, an M-Tech student at IIT Bombay (AIR 70 in GATE) was organized by Dr Konala S K Karthik Reddy where he shared his GATE preparation strategy and experiences.



INDUSTRIAL VISIT

1. Dr. S. Bala Murugan, Dr. T. Shanmuga Priya, Dr. Karthik Reddy, and Dr. OM. Suganya, SCE, organized an Industrial visit to PKM Metal Buildings, Kancheepuram, for the students to explore the various process involved in manufacturing of metals on 02nd & 3rd October 2024.



2. Dr. M.P. Saravana Kumar Professor Grade 1, SCE, VIT organized an Industrial visit to RAMCO Cement Ltd., Ariyalur, for the students to explore the manufacturing of cement on 22nd October 2024.
3. Dr. A. Sofi, Dr. A. Abdul Rahim, Professor Grade 1, SCE VIT organized an Industrial visit to Amaze Concrete Products Pvt. Ltd., around 44 B. Tech Civil Engineering students along with 2 faculty members visited the ready-mix concrete plant. The various stages involved in the production of ready-mix concrete was explained to the students in detail and the students obtained great industrial exposure on 22.10.2024.



PUBLICATIONS

1. Priyanka, K. M., & Saravanakumar, M. P. (2025). New insights into extracellular polymeric substance degradation during dewaterability of sludge by UV-driven advanced reduction processes: Role of hydrated electron and spectroscopic profiling of dissolved organic components in sludge filtrate. *Journal of Environmental Management*, 373, 123583.
2. Gowri, K., & Rahim, A. A. (2024). Investigation on rheological performance of indigenously developed sustainable low clinker hybrid cementing binders. *Results in Engineering*, 24, 103543.
3. Thabrez, M., & Parimalarenganayaki, S. (2024). Fuzzy Synthetic Evaluation for classifying Groundwater quality for irrigation in the parts of Tumkur district, Karnataka: Insights of uncertainty management at class boundary condition. *Pollution*, 11(1), 1-14.
4. Mohan, G., Behera, S. K., & Shanthakumar, S. (2025). Advanced oxidation processes for coffee processing wastewater treatment: Current developments and future directions. *Journal of Water Process Engineering*, 69, 106737.
5. Ashwin, K. R. N., & Srimuruganandam, B. (2024). Bakelite to Microplastics Contamination: A Comprehensive Review on Microplastics Sources, Distribution and their Characteristic Existence in Environment. *Emerging Contaminants*, 100454.
6. Sridhar, D., & Parimalarenganayaki, S. (2024). Assessment of groundwater quality under unplanned urban environment: A Case Study from Vellore City, Tamilnadu, India. *Water, Air, & Soil Pollution*, 235(12), 1-25.
7. Ghalimath, A. G., & Visuvasam, J. A. (2024). Characterizing undrained behaviour of imperfectly saturated Palar sand. *Results in Engineering*, 24, 103107.

8. Krishnanjana, K., & Ganesh, G. M. (2024). Punica granatum peel powder and extract as green inhibitor for TMT in 1M HCl: an experimental and response surface model. *Green Chemistry Letters and Reviews*, 17(1), 2412989.
9. Sridhar, D., & Parimalarenganayaki, S. (2024). Evaluation of human and ecological health risks associated with the potentially toxic heavy metals in groundwater of Vellore city, Tamil Nadu, India. *Journal of Hazardous Materials Advances*, 16, 100497.
10. Manjunath, D. R., & Jagadeesh, P. (2024). Dynamics of urban development patterns on thermal distributions and their implications on water spread areas of Vellore, Tamil Nadu, India. *Frontiers in Sustainable Cities*, 6, 1462092.
11. Gowri, K. (2024). Studies on hybrid quaternary blended limestone calcined clay cement (LC3) for sustainable concrete. *Innovative Infrastructure Solutions*, 9(11), 1-22.
12. Raghul, M., & Porchelvan, P. (2024). An Approach for Monitoring Chlorophyll-A and Turbidity Levels in Saduperi and Kaveripakkam Lakes Located in and Around Vellore Region, Tamil Nadu, India, Using Spectral Unmixing Technique. *Journal of the Indian Society of Remote Sensing*, 1-20.
13. Priyanka, K., & Suganya, O. M. (2024). A Review on the Influence of Particle Packing Theory and Materials on characteristics of ECC. *Journal of Building Engineering*, 111079

EDITORIAL TEAM

Dr. T. Meena (Associate Professor -Senior)
Dr. OM. Suganya (Associate Professor-Gr-I)
Sharvesh J (Student 23BCL0085)
Niranjana (Student 22BCL0054)
Lakshmi S (Student 23BCL0089)
Pise Gaurav Tikaram (Student 22BCL0114)

CONTACT

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