

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

Civil Engineering is fundamental to the built environment and to the development of society—from the buildings and infrastructure around us to water resources, transportation, and sustainable cities. 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.

We are committed to ensuring that our students develop a strong understanding of fundamental civil engineering principles while gaining exposure to emerging technologies such as Artificial Intelligence, Building Information Modelling (BIM), drones, LiDAR, Geographic Information Systems (GIS), and Remote Sensing. Through the integration of core knowledge, innovation, and technology, we strive to nurture competent, responsible, and future-ready Civil Engineers.

It is with great pride and enthusiasm that I publish the Sixteenth Issue of the SCE E-Newsletter, to you brought by the School of Civil Engineering (SCE), Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, India. This issue showcases the achievements, activities, innovations, and contributions of our students, faculty, and scholars, while providing an insight into the vibrant academic, research, and professional environment at SCE, VIT - **Dr. A. S. Santhi**

School of Civil Engineering has organized “Environmental Sustainability Week” from 5th to 9th June 2023, on the occasion of World Environment Day (#Beatplasticpollution). Mr. Dharanipathy, Chief Engineering Manager, EDRC, L&T Chennai was the Chief Guest of the Inaugural function. The next day, a team from SCE and CSRD conducted an awareness programme about plastic pollution, at Serkadu Village, Katpadi. Also, saplings were given to local people during this programme. On 7th June 2023, Dr. Ketheesan Balachandran, Head, Department of Civil Engineering, Jaffna University, Sri Lanka gave a Guest Lecture on various wastewater treatment processes. Later, on the same evening, a Poster Presentation competition was conducted for our VIT students. On the 4th day of the Environmental Sustainability Week, kids of VIT faculty and staff members participated in the Elocution competition which was followed by the Valedictory function.

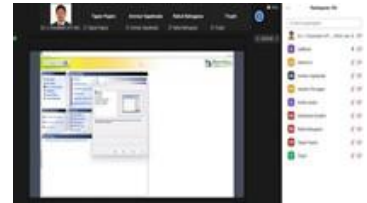


NATIONAL/INTERNATIONAL EVENTS ORGANISED

Dr. G. Mohan Ganesh, Professor, School of Civil Engineering and Dr. N. Senthil Kumar, Associate Professor, School of Civil Engineering organized Three day Workshop on "Analysis and Design of PSC T-beam and PSC Box girder bridges using MIDAS CIVIL" from 7th to 9th April 2023.



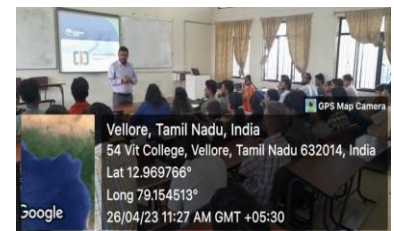
Dr. A.S. Santhi, Professor and Dean, School of Civil Engineering and Dr. J. Visuvasam, Assistant Professor, School of Civil Engineering organized Training Program in association with Makeintern – E-Cell (IIT Kharagpur) & Vellore Institute of Technology, Vellore on "Bridge Design using STAAD.Pro" from 17th to 19th April, 2023. Total of 35 students participated from both B.Tech Civil Engineering and M.Tech Structural Engineering. As an outcome four students were shortlisted for bridge design competition.



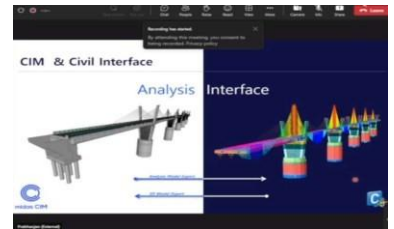
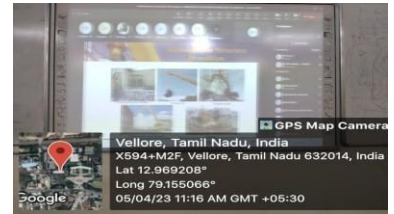
Dr. T. S. Viswanathan, Associate Professor, School of Civil Engineering organized an event on "STUDENTS - TEACHER BOND AND MANAGING 21 ST CENTURY LEARNERS" on 28 April 2023. A total of 22 people attended the event.

NATIONAL AND INTERNATIONAL LECTURES

1. Mr. B. Suresh delivered a lecture on "Sustainable Cement for Futuristic Constructions" organized by Dr. Shanmuga Priya T, Associate Professor, School of Civil Engineering and Dr. Senthil Kumar N, Associate Professor, School of Civil Engineering on 26 April 2023. A total of 93 students participated in the Eighth Module lecture.
2. Ms. Aastha Maniar delivered a lecture on "Private & Public Infrastructure for New Age Electric Vehicles" organized by Dr. Vasantha Kumar S, Professor, School of Civil Engineering on 15 April 2023. A total of 52 students participated in the Eighth Module lecture.
3. Dr. Askar Zhussupbekov delivered a lecture on "Geotechnical Construction and Testing of Pile Foundations on Problematic Soils of Kazakhstan", organized by Dr. Divya Priya B, Assistant Professor, School of Civil Engineering on 6 April 2023. A total of 60 students participated in the General lecture.
4. Prathap Muniyappa delivered a lecture on "Urban Tunnelling Techniques & Overview of Underground Metro Project" organized by Dr. Divya Priya B, Assistant Professor, School of Civil Engineering on 5 April 2023. A total of 60 students participated in the Eighth Module lecture.



5. Dr. Anil Joseph delivered an industry expert lecture on "Demolition of High Rises by Implosion Technology - Case Studies," organized by Ms. Aiswarya S, Assistant Professor, School of Civil Engineering on 5 April 2023. A total of 69 students participated in the General lecture.
6. Mr. Prabhanjan Bhalerao delivered a lecture on "Introduction to Midas CIM (Bridge Information Modelling)" organized by Dr. Mohan Ganesh G, Professor, School of Civil Engineering and Dr. Senthil Kumar N, Associate Professor, School of Civil Engineering on 5 April 2023. A total of 18 students participated in the lecture.
7. Mr. S. Dharanipathy delivered a lecture on "Sustainability Water Solutions for Buildings" organized by Dr. Saravana Kumar M P, Professor, School of Civil Engineering and Dr. Uma Shankar M, Professor, School of Civil Engineering on 5 June 2023. A total of 53 students participated in the Eighth Module lecture.
8. Ms. Gowri Ramanathan delivered a lecture on "Automating BIM Workflows for Construction" organized by Dr. Shanmuga Priya T, Associate Professor, School of Civil Engineering and Dr. Prasanna Venkatesan R, Assistant Professor, School of Civil Engineering on 22 May 2023. A total of 31 students participated in the General lecture.
9. Mr. Murali Jaganathan delivered a lecture on "Formation of Contract - A Legal Perspective" organized by Dr. Shanmuga Priya T, Associate Professor, School of Civil Engineering and Dr. Prasanna Venkatesan R, Assistant Professor, School of Civil Engineering on 19 May 2023.

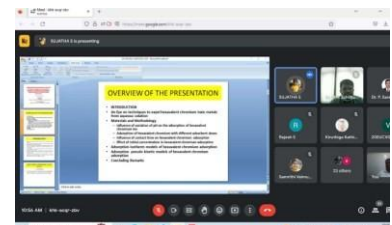
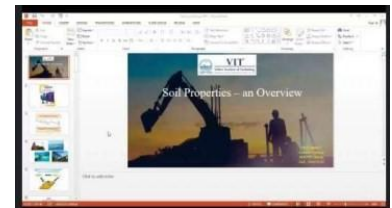
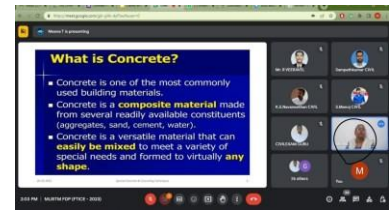


LECTURES DELIVERED

1. Dr. Parimala Renganayaki S, Associate Professor, School of Civil Engineering delivered a lecture on "Groundwater Augmentation through Managed Aquifer Recharge (MAR)" at the College of Engineering, Anna University, Chennai, India.



2. Dr. Meena T, Associate Professor, School of Civil Engineering delivered a lecture on "SPECIAL CONCRETE & CONCRETING TECHNIQUES" at Marri Laxmi Reddy Institute of Technology, Hyderabad, India.
3. Dr. Prasanna Venkatesan R, Assistant Professor, School of Civil Engineering delivered a lecture on "Lean Curriculum" at the Institute for Lean Construction Excellence, Chennai, India.
4. Dr. Malathy J, Assistant Professor, School of Civil Engineering delivered a lecture on "Soil Mechanics - an overview" to Undergraduate students of Civil Engineering at Fatima Michael college of Engineering and Technology Madurai, Madurai Tamil Nadu, India.
5. Dr. Jagadeesh P, Professor, School of Civil Engineering delivered a lecture on "The Role of Ergonomics in Occupational Health" at Vellore Institute of Technology, Vellore, India.
6. Dr. Venkadavarahan M, Assistant Professor, School of Civil Engineering delivered a lecture on "Application of Statistics and Hands-on section in R - Language" at A Veeriyar Vandayar Memorial Sri Pushpam College, Thanjavur, India.
7. Dr. Bhaskar Das, Professor, School of Civil Engineering delivered a lecture as session speaker on "Energy Systems and Modelling" at NIT Calicut, Kerala, India.
8. Dr. B. Srimuruganandam, Professor, School of Civil Engineering delivered a lecture as session chair on "Innovative Materials and Smart Technologies for Sustainable Development (IMSTD-2023)" at Sri Krishna College of Engineering and Technology, Tamil Nadu, India.
9. Dr. Uma Shankar M, Professor, School of Civil Engineering delivered a lecture on "Predicting Groundwater Quality Using IoT Techniques" at S. V. University College of Engineering, Tirupati, Andhra Pradesh, India.



INDUSTRIAL VISITS



Dr. Bala Murugan S, Associate Professor, School of Civil Engineering; Dr. Senthil Kumar N, Associate Professor, School of Civil Engineering and Dr. Suganya OM, Associate Professor, School of Civil Engineering coordinated a visit on 13th June 2023 to the S&T Boys Hostel Building Construction site by ELITE Construction in Vellore, India. The event witnessed the participation of 41 students.



Dr. Shanmuga Priya T, Associate Professor, School of Civil Engineering and Dr. Senthil Kumar N, Associate Professor, School of Civil Engineering on 31st May 2023, an industrial visit was conducted to SR Flyash Bricks in Chennai, India, with 93 students to understand the manufacture of flyash bricks.



Dr. Shanmuga Priya T, Associate Professor, School of Civil Engineering; Dr. Prasanna Venkatesan N R, Assistant Professor, School of Civil Engineering and Dr. Jayaprakash J, Professor, School of Civil Engineering coordinated the industrial visit on 25th May 2023, 50 students explored the operations of VME Precast Private Limited, Chennai.



Dr. Suganya OM, Associate Professor, School of Civil Engineering and Dr. Visuvasam J, Assistant Professor, School of Civil Engineering engaged 46 students in an industrial visit to Vellore Institute of Technology in Vellore, India to demonstrate the construction practices at Pearl block, VIT on 5th April 2023



Dr. Vignesh Rajkumar L, Assistant Professor, School of Civil Engineering Dr. Malathy J, Assistant Professor, School of Civil Engineering and Dr. Hareesh M, Assistant Professor, School of Civil Engineering took 32 students of Global warming and Natural disaster mitigation and management on an Industrial visit to Regional Meteorological Centre in Chennai, India on 3rd April 2023.

FACULTY OUTREACH



Dr. P. Sasanka Bhushan, Associate Professor, School of Civil Engineering had undertaken a consultancy project titled "Accident Risk Reduction Strategies at Road Sites with High Accident Risk in Ranipet District" for the Superintendent of Police, Ranipet District, Tamilnadu. The project was valued at a fee of Rs.58,700. Research Scholars Biswajit Mohanty and V. S. Meganathan and B.Tech Students Suravarapu Abhiram and Singareddy Om Prakash Reddy coordinated with the project.

Dr. S.Vasantha Kumar, Professor, School of Civil Engineering has done a testing work on "Aggregate Impact Test, Crushing Test, Los Angeles Test, Shape Test, Specific Gravity & Water Absorption Test, Bulk density test and Sieve Analysis" for SUNBLUES, Vellore on 9th June, 2023.

PUBLICATIONS

Pradeep P.S., Mayakrishnan M. (2023) Understanding the Engineering Behaviour of Expansive Soil Amended with Bagasse Ash and Lime Using Microstructural Analysis, International Journal of Geosynthetics and Ground Engineering.

Deebika P., Saravanakumar M.P. (2023) Utilization of RO rejects and waste aluminum scraps for hydrogen generation, International Journal of Hydrogen Energy. (Impact Factor: 7.139)

Santhoshkumar M., Perumal D., Narenkumar J., Ramachandran V., Muthusamy K., Alfarhan A., David E. (2023) Potential use of bio functionalized nanoparticles to attenuate triple negative breast cancer (MDA-MB-231 cells), Bioprocess and Bio systems Engineering (Impact Factor: 3.434)

Sai Vamsi Gangadhar M., Absar W., Siddharth A., Sofi A, (2023) Comparative study on sugarcane bagasse ash and banana peel powder on concrete and its properties, Materials Today: Proceedings.

Tak S., Gupta P., Kumar A., Sofi A., Mei Yun C. (2023) Effect of using silica fume as a partial replacement of cement in concrete, Materials Today: Proceedings.

Thabrez M., Parimalarenganayaki S. (2023) Assessment of Hydrogeochemical Characteristics and Seawater Intrusion in Coastal Parts of Mangaluru City, Karnataka, India. Water, Air, and Soil Pollution. (Impact Factor: 2.984)

Shah S.M.I., Ganesh G.M. (2023), Micro-Steel Fiber-Reinforced Self compacting Concrete-Filled Steel-Tube Columns Subjected to Axial Compression. International Journal of Steel Structures. (Impact Factor: 1.541).

Riyaz Khan N.H. and Vasantha Kumar S. (2023) 3D visualization of pavement distress using terrestrial LIDAR data, Proceedings of the 6th Intercontinental Geoinformation Days (IGD), Baku, Azerbaijan, 13-14 June 2023, pp. 386-389.

Sathiyamoorthy M., Masilamani U.S., Chadee A.A., Golla S.D., Aldagheiri M., Sihag P., Rathnayake U., Patidar J., Shukla S., Singh A.K., Kumar B., Martin H. (2023) Sustainability of Groundwater Potential Zones in Coastal Areas of Cuddalore District, Tamil Nadu, South India Using Integrated Approach of Remote Sensing, GIS and AHP Techniques. Sustainability (Switzerland). (Impact Factor: 3.889)

Sangeetha Gaikadi and Vasantha Kumar S (2023) Extraction of tree parameters using terrestrial 3D LIDAR data, Proceedings of the 6th Intercontinental Geoinformation Days (IGD), Baku, Azerbaijan, 13-14 June 2023, pp. 390-393.

Nair N.A., Viswanathan T.S. (2023) β -CaSiO₃ and colloidal n-SiO₂ based blended cement composites- their properties, regression analysis and micro characterization studies, Materiales de Construcción. (Impact Factor: 2.146)

Swarnam S., Gaurav G., and Meena T. (2023) Bond behaviour with tension lap splice for deformed steel bars in normal-strength concrete, Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2023.06.433>

Kallempudi, M., and Meena, T. (2023). Experimental study on mechanical and durability properties of steel, glass and hybrid fiber (steel and glass) based geopolymer concrete, The Indian Concrete Journal, Vol. 97, No. 8, pp. 17-25.

Abilaji S., Sathishkumar K., Narenkumar J., Alsali M.S., Devanesan S., Parthipan P., Muthuraj B., Rajasekar A. (2023) Sequential photo electro oxidation and biodegradation of textile effluent: Elucidation of degradation mechanism and bacterial diversity, Chemosphere. (Impact Factor: 8.943).

Raj G., Rai D., Singh R.S., Sofi A. (2023) Study on properties of concrete using slag as partial replacement of cement, Materials Today: Proceedings.

Kumanan T.S. and Sofi A. (2023) Investigation of the stability of recycled clay adobes by statistical regression analysis – A preliminary study, Materials Today: Proceedings.

EDITORIAL TEAM

Dr. L. Vignesh Rajkumar (Assistant Professor)

Prof. J. Malathy (Assistant Professor)

Bikalpa Gautam (Student - 20BCL0135)

Varsha Miriam Joseph (Student - 19BCL0003)

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