

# CIVIL CHRONICLES

Vol 3 , Issue 1

YEAR 2024-25



## VISION

To grow as a globally recognized centre in Civil Engineering with a focus on innovation and research by combining technical and ethical qualities.

## MISSION

### M1

To provide a better environment to encourage innovative and research thinking among students.

### M2

Life-Long Learning: Instill in students contemporary knowledge in order to achieve academic and professional excellence with global perspective through experience of lifelong learning.

### M3

Engage with Society: Impart a sense of community responsibility and leadership qualities to better meet the challenges of sustainable growth.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

### PEO1

Achieve excellence in the professional practices of Civil Engineering by utilizing the acquired knowledge and technical skills supported by modern day tools.

### PEO2

Participation in decision making and nation building by adopting energy efficient and sustainable practices in Civil Engineering.

### PEO3

Encourage innovative thinking and entrepreneurship by research and higher studies in advanced areas of Civil Engineering.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

### PSO1

To solve engineering problems related to Civil Engineering by systematic techniques, skills and tools to meet the ever growing needs of sustainable infrastructural development.

### PSO2

Design and build Civil Engineering-based systems in the context of structural, geotechnical, transportation and environmental requisites.

## PROGRAM OUTCOMES (POs)

### PO1

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

### PO2

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

### PO3

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

### PO4

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

### PO5

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

### PO6

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

### PO8

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

### PO10

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

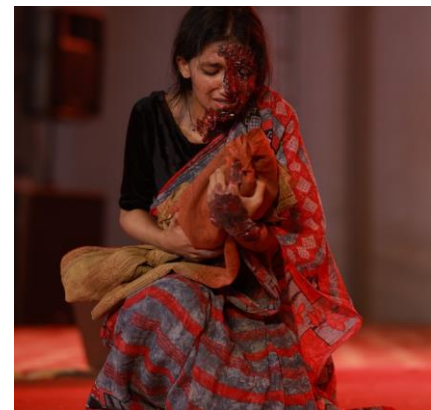
### PO11

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

### PO12

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

# The National Techno Cultural Fest : X-tasy 2024



**X-tasy 2024**, the **National Techno Cultural Fest**, held on April 17th to 19th, 2024, at St Thomas College of Engineering and Technology, featuring a vibrant array of technical competitions, cultural performances, leaving behind a legacy of creativity, and memories to cherish, and setting a benchmark for future editions. The festival was graced by the presence of our esteemed Chief Guest, Dr. M Rajesh, Senior Regional Director, IGNOU

X-tasy 2024, a National Techno Cultural Fest, was held from 17th to 19th April, featuring an impressive array of over 50 events, with a **total prize worth of ₹150,000!**

The technical competitions were a highlight of the festival, with events such as Wizard, Cad Mania, Open Sim Sim, Built Xtra, Terraria, Project High Rise, Podium, Arkrete, and Tower Takedown. These events tested students' technical knowledge, problem-solving skills, and creativity, and were judged by industry experts and faculty members.

• **Technical Competitions:**

**Wizard:**

A technical quiz held on April 18th, with up to 40 KTU activity points and a **prize worth ₹3,000**, that tested students' knowledge in civil engineering, with a focus on construction technology, materials science, and structural analysis.

**Cad Mania:** An AutoCAD design competition held on April 17th where students had to create innovative designs using computer-aided drafting software.

**Open Sim Sim:** A treasure hunt held on April 17th that required students to solve puzzles and clues related to civil engineering concepts.

**Built Xtra:** A bridge-making competition held on April 17 where students had to design and build bridges using different materials and techniques.

**Terraria:** An adventure meet held on April 18th where students had to navigate through obstacle courses and challenges related to civil engineering.

**Project High Rise:** A waste model-making competition held on April 19th where students had to create models using recycled materials.

**Podium:** A technical debate held on April 19th where students had to discuss and argue on topics related to civil engineering and construction.

**Arkrete:** An arch-making competition held on April 18th where students had to design and build arches by using brick.

**Tower Takedown:** A Jenga challenge held on April 19th where students had to build and demolish towers by using jenga blocks.

• **Non-Technical Competitions:**

**Face Painting:** A creative activity where students had to paint their faces with different designs and patterns.

**Nadan Pattu:** A traditional Kerala folk song competition where students had to sing and perform folk songs.

**Nostalgia:** A trip down memory lane where students had to create and perform skits and dances based on retro themes.

**Catch The Vibe:** A music and dance competition where students had to perform to different genres of music.

**Cinematic Dance:** A dance competition where students had to perform dances inspired by movies.

**Mehandi Design:** A henna art competition where students had to create intricate designs using henna.

**Photography:** A photography competition where students had to capture and showcase their best shots.

**Fancy Dress:** A costume competition where students had to dress up in creative and innovative costumes.

**Synchronous Dance:** A synchronized group dance competition where students had to perform in groups.

**Spot Dance:** An impromptu dance competition where students had to dance to random music.

Overall, X-tasy 2024 was a vibrant and unforgettable experience that brought together students, faculty members, and industry experts in a celebration of creativity, innovation, and technical excellence. The festival set a benchmark for future editions and left behind a legacy of memories to cherish.



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Dr. Arun Kumar Selvarajan receiving the BIM training certificate from the Vice Chancellor at the function held at KTU.

**BIM**

Dr. Arun Kumar Selvarajan has successfully completed the training on Building Information Modeling from 27th November to 18th December 2023.

**NPTEL**



Mrs. Vijila Balakrishnan, Ms. Deepthi K, and Ms. Roopa Balakrishnan successfully completed NPTEL course water supply engineering. Mrs. Vijila Balakrishnan, Ms. Deepthi K, and Ms. Roopa Balakrishnan achieved ELITE+SILVER certificate in the NPTEL exam Geotechnical engineering laboratory.



**NATPAC**



**Mr . Nigil M**



**Mrs. Deepthi K**



**Ms. Manasa Mukundan**

Mr. Nigil M, Mrs. Deepthi K, Ms. Manasa Mukundan. Assistant Professor's in Civil Engineering Dept at S.t Thomas College of Engineering and Technology affiliated to APJ Abdul Kalam Technological University, was involved in conducting user opinion survey, parking in-out survey and land use survey in Thalasseri for the project "Development of Parking Policy Framework for Kerala" of KSCSTE-National Transportation Planning and Research Centre(NATPAC) on 12th February 2024 to 24th February 2024.



Dr. Arun Kumar S receiving Excellence Awards at Annual College Induction Ceremony.

Teaching Excellence Awards for the academic year 2023-2024 have been officially announced, recognizing the outstanding contributions of faculty member from the Department of Civil Engineering. The accolades were conferred upon four distinguished educator, namely Dr. Arun Kumar S commendable academic achievements. The awards were presented during a ceremony held on August 21, 2024, in conjunction with the college induction program. The event served as a platform to honour the exceptional dedication and results-oriented efforts exhibited by these faculty members in the realm of academia. The esteemed college principal, Mr. Shinu Mathew John, took the opportunity to express his admiration for the department's remarkable academic performance. His words of praise resonated throughout the function, acknowledging the relentless pursuit of excellence by the Department of Civil Engineering. The ceremony witnessed the participation of faculty member has been cleared and students from various branches, creating an atmosphere of celebration and camaraderie. The collective applause from the attendees underscored the significance of the department's commitment to academic excellence.

# Student Achievements



**VYSHNAV V V**



**AMAL K**

**PLACED AT  
AMERIGO**

**STRUCTURAL ENGINEERS PVT. LTD**



# MoU signed between Dept. Of Civil Engineering and Carbon Blue Global Training Institute.



**Snapshot on Skill Development Program**



**Students and staffs participated in Skill Development Program**



**St. Thomas College of Engineering & Technology has signed an MoU with CBG**

## SKILL DEVELOPMENT PROGRAM

The Department of Civil Engineering recently hosted a highly successful Skill Development Program Workshop on July 19th, 2024. This comprehensive workshop featured a distinguished panel of resource persons, including Mr. Jubair K V, Mr. Noufal, and Mr. Anwer C M, who are renowned experts in their respective fields.

The workshop was expertly coordinated by Ms. Akshara K Anil, whose meticulous planning and execution ensured a seamless and enriching experience for all participants. Throughout the day, students were treated to insightful presentations, interactive sessions, and hands-on activities that provided them with valuable industry expertise and practical skills.

The workshop covered a range of topics, including cutting-edge technologies, innovative techniques, and best practices in civil engineering. The resource persons shared their vast knowledge and experience, offering students a unique opportunity to learn from the experts and gain valuable insights into the industry.



## CARBON BLUE GLOBAL

Carbon Blue Global (CBG) has recognized the importance of providing high-quality training programs to final-year students at STM, aiming to enhance their skills and industry connect. In line with this, CBG has launched an initiative to support the Civil Engineering Department, focusing on empowering young engineers with the knowledge and expertise needed to excel in their field.

As part of this initiative, CBG has acknowledged the outstanding participation and achievements of final-year students under the guidance of Ms. Vijila Balakrishnan. The Head of the Civil Engineering Department at St. Thomas College of Engineering and Technology in Mattanur has received a Memorandum of Understanding (MOU) from Carbon Global Blue (CBG). The MOU outlines a partnership aimed at enhancing the skills and industry readiness of civil engineering students.

This collaboration between CBG and STM is a testament to the shared commitment to advancing the field of civil engineering and preparing the next generation of engineers for the challenges of the future. Through this initiative, CBG is demonstrating its support for the Civil Engineering Department and its students, providing them with the resources and expertise needed to thrive in their academic pursuits and future careers.



# EVENTS

## CONVOCAATION CEREMONY 2020 BATCH

On July 6th, 2024, St. Thomas College of Engineering and Technology held its convocation ceremony, honoring the esteemed 2020 batch. The prestigious event was graced by Dr. Jacob Chandapillai, Chief Innovation Officer and Head of Innovation Centre at IIT Palakkad, who served as the Chief Guest. During the ceremony, a distinguished alumna of the 2020 batch, was felicitated as the College Topper. The occasion also witnessed the conferral of degrees upon the graduates, marking the culmination of their academic endeavors.

The momentous event was shared with family members, faculty, and esteemed guests, celebrating the scholars' remarkable achievements. Sariga, an outstanding graduate of the 2020 batch, received the coveted College Topper award. The event also the formal conferral of degrees upon the graduating class, acknowledging their academic excellence. Family members, faculty, and distinguished guests joined in celebrating this significant milestone.



### Civil Department toppers, 2020-24



**Sariga Jayaraj**  
**CGPA : 9.32**



**Farhana P C**  
**CGPA : 9.02**



**Anagha M**  
**CGPA : 9**

### Best Outgoing Student



**Sariga Jayaraj**  
**CGPA : 9.32**

## PLACEMENT OFFERS

The batch of 2020, Vyshnav V.V. and Amal K.K. Secured positions at **Amerigo Structural Engineers Pvt. Ltd.**, while Pradul P, Anagha M, and Ajay Simon were successfully placed at Paradigm.



**Pradul P**



**Anagha M**



**Ajay Simon**



# BIM TRAINING PROGRAMME

The Department of Civil Engineering, in association with 'SATTVA', recently conducted a Building Information Modelling (BIM) training program for students. The program was divided into two phases. Phase 1 took place from March 13 to April 12, and the resource persons for this phase were Dr. Arun Kumar S, Ms. Akshara K Anil, Ms. Manasa Mukundan, and Ms. Chithira O. P.

Phase 2 of the training program was held on June 6th and 7th, and the resource person for this phase was Ms. Megha K from the CADD centre in Kannur. The program was coordinated by Dr. Arun Kumar S, Ms. Akshara K Anil, and Ms. Manasa Mukundan. The target audience for the training program was 58 CE students.

This training program aimed to equip students with the knowledge and skills required to use Building Information Modelling (BIM) software, which is widely used in the construction industry. By conducting this program, the Department of Civil Engineering and 'SATTVA' have taken a significant step towards bridging the gap between academic learning and industry.



**Students and staffs participated in BIM Workshop**



**BIM certificate recieved from Dr. Shinu Mathew John**

## WORKSHOP ON CONSTRUCTION TECHNOLOGIES IN CIVIL ENGINEERING AS PER NBC GUIDELINES



**Group photo of participants and staffs**

An informative workshop conducted on 18th April 2024. Innovative construction technologies in civil engineering, conforming to NBC guidelines, was led by the esteemed Mr. K.V. Dhanamjayan, retired Executive Engineer, CPWD, leveraging his vast expertise to enlighten participants. This program coordinated by Mr. Nigil M, Assistant Professor From STM.



**Mr. K .V Dhanamjayan recieving a memento from Mr. Nigil M.**

# EXPERT TALK ON EMERGING TRENDS IN WATER AND WASTEWATER MANAGEMENT

These are highlights from the lecture on 'Emerging Trends in Water and Wastewater Management,' delivered by Dr. Arun Kumar Selvaraj on 9th August 2024. The water and wastewater management landscape is undergoing a significant transformation, driven by innovative technologies, shifting regulations, and escalating environmental concerns. Emerging trends include the adoption of digital water solutions, leveraging AI, IoT, and data analytics to optimize network operations and predictive maintenance. Advanced water reuse and recycling technologies are gaining traction, while decentralized wastewater treatment systems are becoming increasingly popular. The integration of green infrastructure, such as green roofs and urban wetlands is also on the rise. Furthermore, the focus on circular economy principles is driving the development of value-added products from wastewater, such as energy, nutrients, and bioproducts.

Additionally, climate-resilient water management strategies and nature-based solutions are gaining prominence. These trends are expected to reshape the water and wastewater management sector, enabling more efficient, sustainable, and resilient systems for the future. Some key emerging trends in water and wastewater management include:

1. Digital Water.
2. Water Reuse and Recycling.
3. Decentralized Wastewater Treatment.
4. Green Infrastructure.
5. Circular Economy.
6. Climate-Resilient Water Management.
7. Nature-Based Solutions.
8. Advanced Materials and Technologies.
9. Energy Harvesting from Wastewater.
10. Water-Energy Nexus.



**EXPERT TALK CONDUCTED ON TOPIC EMERGING TRENDS IN WATER AND WASTEWATER MANAGEMENT**

## Expert talk on FUNDAMENTAL CONCEPTS OF LIMIT STATE DESIGN

The Civil Engineering Department of St. Thomas College of Engineering and Technology, in collaboration with the department association, Sattva, recently organized an enlightening expert talk titled "Fundamental Concepts of Limit State Design & Code Provision for Designing Concrete Members". Held on the 12th of August 2024, this session was attended by 5th-semester students and took place in Lecture Hall 4 from 3:00 PM to 4:00 PM. Led by Assistant Professor Ms. Athira B Krishnan, the talk provided students with an in-depth look into essential principles and practical aspects of limit state design, specifically focusing on code provisions necessary for concrete member design. Ms. Athira's presentation included a range of practical examples and case studies, bridging theoretical knowledge with real-world applications. The event was coordinated by Assistant Professor Ms. Manasa Mukundan, whose efforts contributed to the smooth execution and success of the session. Students found the talk incredibly beneficial, gaining valuable insights that enriched their understanding of structural design principles and prepared them for advanced topics. This event is one of many organized by Sattva to support the academic and professional growth of our students, ensuring they are well-equipped for future industry challenges.



**EXPERT TALK CONDUCTED ON TOPIC FUNDAMENTAL CONCEPTS OF LIMIT STATE DESIGN**





# ICC / WOMEN'S CELL STM CELEBRATING

ON March 8th,2024, a talk titled "Count Her In: Accelerating Gender Equality Through Economic Empowerment" was delivered by Mrs. Sushmita Babu, Focusing on the critical role of economic initiatives in fostering gender parity. By dismantling systemic barriers and fostering inclusive economic opportunities, we can unlock the transformative potential of women's participation. This initiative seeks to bridge the persistent gender gap in economic domains, ensuring women's equal access to education, employment, entrepreneurship, and financial resources. Through strategic investments, capacity-building programs, and policy reforms, "Count Her In" aims to empower women to become drivers of economic growth, innovation, and social change. By recognizing the intrinsic value of women's contributions, we can create a more equitable and prosperous world where everyone thrives.



**Mrs. Susmitha Babu**

Writer and Ass.Professor SSITS,

THALIPPARAMBA

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## **EDITORIAL TEAM**

**Ms. Deepthi K (Asst. Prof CE)**

**Ms. Raveena Rajesh (Asst. Prof CE)**

**Ashik KV (S7 Civil)**

**Abhinav T N (S7 Civil)**

**Adwaita SR (S5 Civil)**

**Anjana M (S3 Civil)**