# Department Of Civil Engineering

# CIVIL CHRONICLES

**Vol 4, Issue 1** **YEAR 2025-26**

## 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 : Professional Skills**
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 acad emic 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.

# CONVOCATION CEREMONY OF 2021 BATCH

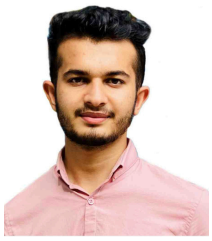
26/07/2025

St. Thomas College of Engineering and Technology officially hosted its annual Convocation Ceremony on July 26th, 2025, marking a momentous occasion for the highly accomplished 2021 graduating batch. The campus atmosphere was one of profound pride and celebration, recognizing the culmination of years of dedicated academic effort and perseverance. The event was significantly distinguished by the presence of Dr. Manoj Samuel, Executive Director of the Centre for Water Resource Development and Management, who graced the proceedings as the esteemed Chief Guest. Dr. Samuel delivered an inspiring and insightful address, offering the newly minted engineers and technologists valuable counsel on their responsibilities in their professional fields, emphasizing the need for ethical practice and continuous innovation as they embarked on their careers.

The central highlight of the day was the formal conferral of degrees upon the graduates. This deeply symbolic act formally recognized the academic excellence and successful completion of their rigorous programs, validating their readiness to enter the professional workforce. The ceremony was a heartwarming affair, attended by proud family members whose unwavering support was instrumental to the graduates' success, alongside the dedicated faculty who mentored them throughout their academic journey, and numerous distinguished guests. This significant milestone officially transitioned the graduating class from scholars into qualified professionals, ready to contribute their expertise and skills to face and solve the challenges of the modern world

# CIVIL DEPARTMENT TOPPERS 2021-25

**Keerthana P**
CGPA **8.33**

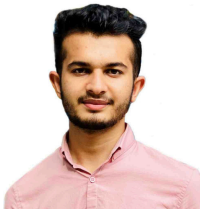


**Mohammad Shahabas T**
CGPA **8.14**

**Kavya A**
CGPA **7.4**

# PLACEMENT OFFERS

Sneha M P got selected in Stead Fast Engineering Consulting Pvt.Ltd
(2020-2024 batch)



Mohammad Shahabas T got selected in Paradigm IT Pvt.Ltd
(2021-2025 batch)

# **EXPERT TALK**: 3D PRINTING IN CONSTRUCTION: PRESENT & FUTURE

01/08/2025

The Department of Civil Engineering at St. Thomas College of Engineering & Technology, Mattannur, organized a highly informative expert talk on the topic "3D Printing in Construction: Present & Future" as part of its continuous efforts to introduce students and faculty to emerging and innovative trends in the field of civil engineering. This program was conducted on August 1st in Seminar Hall 1, from 10:45 AM to 12:25 PM, and brought together students, faculty members, and technical staff with a shared interest in advanced construction technologies and sustainable development.

The expert talk was organized under the guidance of the department leadership and forward-looking. coordinated by Ms. Manasa Mukundan (Assistant Professor, CE), who played a key role in conceptualizing and executing the event smoothly. The program was conducted in association with KMCT College of Engineering and featured a highly respected academician and industry expert, Dr. Sheeja T V, Head of the Department of Civil Engineering, KMCT College of Engineering, as the resource person. With her deep expertise in structural engineering and sustainable construction, she was the ideal speaker to address the topic, offering insights that were both technically enriching and

The primary objective of the program was to provide a platform for students to learn about 3D printing technology building processes.
Its applications in the construction industry, a topic that is rapidly gaining relevance in both academic research and professional practice. The session aimed to enhance participants' understanding of how additive manufacturing techniques are reshaping construction methodologies by offering faster, more cost-effective, and environmentally friendly alternatives to traditional
The event was structured to include an introduction and welcome address, followed by the main expert session, a Q&A segment, and a concluding note. The seminar hall was arranged to create an interactive environment, encouraging attendees to actively engage with the speaker and ask questions. engineering.

# ACHIVEMENTS

Nandana T V, Raveena Rajesh, Amegha V, Keerthana P, and Swarag Kokken published their significant paper, "Stabilization of Oil Contaminated Soil by Using Wheat Straw Powder," in Volume 10, Issue 5 of the International Journal of Novel Research and Development (IJNRD), contributing an innovative, bio-based solution to environmental remediation.

Ria Fathima P, Manasa Mukundan, Ashams Praveen, Fathima Sooppy N, and Niyeha S published their paper, "The Use of Oil Palm Fiber as an Additive Material in Concrete," in Volume 10, Issue 6 of the International Journal of Novel Research and Development (IJNRD), highlighting a sustainable use for agricultural byproducts in construction.

Athira B Krishnan, Hudha Shamsudheen M, Muhammed Shabeeb T, Nandana K Ramesh, and Riya Satheshan published their paper, "Partial replacement of coarse aggregate by Waste ceramic tiles and Bamboo fiber as reinforcement in Concrete," in Volume 10, Issue 6 of the International Journal of Novel Research and Development (IJNRD). This work provides a key insight into sustainable construction by utilizing waste materials in concrete.

Yatish Krishna Uchambally, Mrs. Vijila Balakrishnan, Aswanth Anish, Nandana Pradeep, and Riya Sahi Khelat published their paper, "Soil Stabilisation of Dredged Soil Using Cockle Shell Powder," in Volume 10, Issue 6 of the International Journal of Novel Research and Development (IJNRD). This research proposes an eco-friendly method for stabilizing dredged soil using recycled marine materials.

# PLACEMENT OFFERS

Aiswarya Santosh got selected in We Five Developers
(2021-2025 batch)

Riya Fathima got selected in Dhara Constructions and Consultancy
(2021-2025 batch)

# **EXPERT TALK**: GROPHYSICAL INVESTIGATIONS FOR ROCK MASS CHARACTERISATION IN ENGINEERING PROJECTS

9/9/2025

The IGS STM Student Chapter and Department of Civil Engineering organized an expert talk on "GEOPHYSICAL INVESTIGATION FOR ROCK MASS CHARACTERISATION IN ENGINEERING PROJECTS" on September 2025 at 10:00 AM in Seminar Hall 1, in association with the Civil Engineering Association and IGS Student Chapter.

The session was led by Dr. Sandeep Nelliat, Scientist-V and Head of the Engineering Geophysics Department at the National Institute of Rock Mechanics (NIRM), Bengaluru.

Dr. Nelliat began by introducing the audience to the fundamentals of engineering geophysics and its great significance in the planning and execution of infrastructure projects. He explained how geophysical methods complement geotechnical investigations by providing a three-dimensional understanding of subsurface rock conditions.

The presentation covered the principles of seismic, electrical resistivity, ground penetrating radar (GPR) and electromagnetic techniques, along with their suitability for different site conditions and project requirements. The speaker emphasized how these methods can detect hidden features, estimate rock strength, determine weathering depth, and identify water-bearing zones. The session also featured network-scale studies from dam foundations, highway tunnels, and underground excavations projects, illustrating how geophysical investigations have successfully identified problem zones that could not be detected by boreholes alone. An interactive discussion followed, where students clarified doubts regarding instrumentation, data interpretation, and the integration of geophysical findings with numerical models for design optimization.

# **EXPERT TALK**: NUMERICAL MODELLING BY CONSIDERING GEOTECHNICAL ENGINEERING DATA

9/9/2025


The IGS STM Student Chapter and Department of Civil Engineering organized an expert talk on "NUMERICAL MODELLING BY CONSIDERING GEOTECHNICAL ENGINEERING DATA" on 9th September 2025 at 11:15 AM in Seminar Hall 1. The session was delivered by Dr. V. H. Vijay Sekar, Scientist-IV, Numerical Modelling Department, National Institute of Rock Mechanics, Bengaluru.

The program aimed to introduce participants to the fundamentals and advanced aspects of numerical modelling techniques applied in geotechnical engineering. Dr. Vijay Sekar elaborated on the integration of geotechnical field and laboratory data into numerical models, explaining how soil and rock parameters are incorporated to simulate real-world ground behavior. He also discussed various modelling software, computational approaches, and case studies, emphasizing the importance of accurate data interpretation for reliable geotechnical analysis and design.

Group photo from Expert talk session

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**Staff Editor**

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